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Thematic Issue
Entrepreneurship in the Global Context

edited by
Maria Urbaniec
Cracow University of Economics, Poland
Agnieszka Żur
Cracow University of Economics, Poland



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Editorial

Entrepreneurship is on one hand a fast-growing research field, and on the other hand a complex and multidimensional phenomenon (Fayolle, 2014; Welter, 2011; Żur & Urbaniec, 2016), as it concerns not only actions of individuals, but also activities within the organizations or systems. Recent literature highlights that entrepreneurship is a context-based phenomenon (Zahra & Wright, 2011; Welter, 2011). And thus research on entrepreneurship has moved from the focus of the individual entrepreneurs and their challenges to a broader understanding of the context in which entrepreneurship is embedded. Context can be considered in different ways and with diverse dimensions, e.g. institutional, market, industry, spatial, social (Zahra & Wright, 2011). This thematic issue focusing on *Entrepreneurship in the Global Context* is a next step in the development of *Entrepreneurial Business and Economics Review*. The global context of entrepreneurship is an expansion of prior thematic issues referring to international entrepreneurship.

Current developments in the theory of entrepreneurship point to international entrepreneurship as one of important potential factors contributing to the intensification of the global processes of internationalization of the firm. The advantages of globalization are particularly noticeable in technology and service industries, where the output crosses borders with fewer barriers than in the production industry (Mascitelli, 1999). The increasing globalization of the economy creates the possibility of rapid internationalization and is a key driver of entrepreneurial activities. Researchers agree that entrepreneurs have an opportunity to interact with a global world more than ever before. Firms are gaining new knowledge and experience, which decreases risk and increases commitment to new markets (Wach, 2015).

The purpose of this issue is to present current trends in entrepreneurship with focus on globalization and internationalization processes observed in different organizations, sectors and environments, presenting the diversity and multiplicity of facets of relevant and often underexplored contexts expanding the traditional understanding of entrepreneurship. With contributions from a large variety of contexts, this journal issues embraces studies at macro, meso and micro level, giving insights into the complex and context-dependent processes hindering, promoting and shaping entrepreneurship as a unique set of processes, practices and attitudes. This thematic issue consists of seven thematic articles and five nonthematic articles.

The first section, including the thematic articles, focuses on two important issues of entrepreneurship. First, the attention to processes associated with internationalization patterns at the firm level focusing on innovation, competition and cultural differences will be explored. Second, entrepreneurship is discussed as the subject of research depended on different drivers affecting involvement and motivation for entrepreneurial activities.

In the first thematic article entitled *Innovations and Export Performance: Firm-level Evidence from Poland*, Andrzej Cieřlik, Jan Jakub Michałek and Krzysztof Szczygielski focus on the relationship between innovations and export performance of Polish firms. The empirical results of this study indicate that the probability of exporting is positively related to product and process innovations, firm size, share of university graduates in productive employment and foreign capital participation. The results depend also on the level of technology used in the analysed sector and the relative importance of export market.

The second thematic article entitled *Identification of Linkages between the Competitive Potential and Competitive Position of SMEs related to their Internationalization Patterns Shortly after the Economic Crisis*, written by Piotr Trąpczyński, Barbara Jankowska, Marlena Dzikowska and Marian Gorynia, present the internationalization profiles of SMEs for the period immediately following the global economic crisis (years 2010-2013) and characterise them with reference to the firms' competitive potential during the crisis (year 2009), and their competitive position at the end of the analysed period. The study suggests that the strategy of diversifying international markets during the economic crisis and recovery can be a means of improving performance and reducing excessive dependence on fluctuations in key markets.

Next, Mariola Ciszewska-Mlinarič in her article entitled *Foreign Market Knowledge and SME's International Performance: Moderating Effects of Strategic Intent and Time-to-Internationalization*, contributes to the ongoing discussion on factors supporting the accumulation of foreign market knowledge by focusing on the role of strategic intent and time to internationalization in this respect. Her research is aimed at examining whether and how strategic intent and time-to-internationalization moderate the relationship between foreign market knowledge and SMEs' international performance.

Maja Szymura-Tyc and Michał Kucia in their article entitled *Organizational Culture and Firms' Internationalization, Innovativeness and Networking Behaviour: Hofstede Approach*, emphasize the features of firms' organizational culture within four of Hofstede's national culture dimensions (i.e. power distance in organization, collectivism and individualism in organization, uncertainty avoidance in organization, short and long orientation of organization) and their potential relationships with internationalization, innovativeness and networking behaviour of firms. The paper gives an insight into the organizational culture features relationships with a broad area of firms' behaviour related with their ability to gain competitive advantage.

The fifth thematic article entitled *International Entrepreneurship Theory: Past, Present and Way Forward*, written by Ikemefuna Allen, offers a wide perspective on the historical development of international entrepreneurship as a field of research, and demonstrates how concepts brought forth contribute to a broader understanding of fundamental international business and entrepreneurship theories. The findings indicate that International Entrepreneurship is still in a developmental stage. However, the field is rich with novel ideas and concepts that can give an impetus to researchers as they strive to explore themes such as international entrepreneurial orientation and entrepreneurial internationalization.

Marian Holienka, Anna Pilkova and Zuzana Jancovicova in their article entitled *Youth Entrepreneurship in Visegrad Countries*, analyse the entrepreneurial activity drivers of youth and young adults in Visegrad countries. They found common drivers and distinctive

attributes affecting involvement of young people in business start-up according to its motivation. Based on empirical analysis, their findings point out that the self-confidence and access to networks are universally important factors. In most examined cases, fear of failure and being a female reduces the chance of business start-up, especially among youth, being a student significantly inhibits involvement in enterprising efforts.

Following to this subject of research, Andrea S. Gubik and Szilveszter Farkas in their article entitled *Student Entrepreneurship in Hungary: Selected Results based on GUESSS Survey*, investigate students' entrepreneurial activities and aim to answer questions regarding to what extent do students utilize the knowledge gained during their studies and the personal connections acquired at universities, as well as what role a family business background plays in the development of students' business start-ups. The study shows that the rate of self-employment among Hungarian students who study in tertiary education and consider themselves to be entrepreneurs is high. A family business background and family support play a determining role in entrepreneurship and business start-ups, while entrepreneurial training and courses offered at higher institutions are not reflected in students' entrepreneurial activities.

The second section of this journal issue, embracing other articles, draws attention to different aspects of entrepreneurship, for example, related to human resources, organizational, sector-oriented and regional context-based dimensions.

In the article entitled *Metaphors of Entrepreneurship among Polish Students: Preliminary Research Findings*, Michał Chmielecki and Łukasz Sułkowski raise the issue of the entrepreneurship metaphors among Polish management students. The authors point out, that in Poland entrepreneurship was often perceived as an extremely risky process and entrepreneurs were often portrayed in a negative light. Their research results suggest that there are several major entrepreneurial narratives evident among Polish management students including creativity and innovation, competition, war, journey, risk, adventure and exploitation.

Remigiusz Gawlik and Gorm Jacobsen in the article entitled *Work-life Balance Decision-making of Norwegian Students: Implications for Human Resources Management*, analyse the significance of work-life balance determinants between the Youth of highly developed societies and its implications for human resources management on the example of Norway. The research on perceptions of determinants of quality of life and attractiveness of life strategies shows that in a country with relatively high socio-economic development level, such as Norway, differences in rankings do exist. They can be observed in relevance to both material and non-material quality of life determinants.

The article entitled *The Changing Structure of Retail Industry: Case Studies on Competitive Advantage of Small Companies in Croatia*, written by Blaženka Knežević, Dora Naletina and Mate Damić, provide an insight into dynamics of changes in retail structure. The authors explain trends of retail internationalization and concentration as well as highlight the possibilities for improving the competitive ability of small retailers. As suitable competitiveness strategies they suggest retail alliances and differentiation by assortment.

Next, Hanna Godlewska-Majkowska, Agnieszka Komor and Magdalena Typa in their article entitled *Special Economic Zones as Growth and Anti-growth Poles as Exemplified by Polish Regions*, demonstrate both positive and negative effects of economic zones on the polarization of economic space as exemplified by Polish regions. Conclusions presented in this paper help to identify the factors that either increase the chances of positive effects

contributing to the development of the economic zones or cause their negative effects to prevail. The results of the analysis may be applied not only to foster the development of Poland's regions, but also the regions located in other countries, based not only on Special Economic Zones, and also on other forms of public aid, as the mechanisms of polarisation are universal in character. Consequently, they may be particularly useful to stimulate regional economy in underdeveloped agricultural regions and problem regions characterized by an anachronistic structure of regional economy based on industrial monoculture.

The last article entitled *Organizational Dysfunctions: Sources and Areas*, written by Beata Glinka and Jacek Pasieczny, describe various types and sources of organizational dysfunctions in organizations operating in Poland. The sources of dysfunctions may be found both within the organization and its environment. Regardless of its specific features, most of the dysfunctions may be interpreted as an undesirable goal displacement. Very often areas of these dysfunctions are strongly interconnected and create a system that hinders organizational performance. The paper provides insight into "the dark side of organising" by identifying sources and areas of dysfunctions.

All these papers show that the entrepreneurship is a multistream and multidisciplinary research field focused on different contexts and perspectives. These studies demonstrate that the applicability of the entrepreneurship is wide with promising routes also for future research. Hopefully the content of this journal issue will provide inspiration and sufficient insights to accordingly take up further research.

Maria Urbaniec

Agnieszka Żur

Thematic Issue Editors

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Innovations and Export Performance: Firm-level Evidence from Poland

Andrzej Cieřlik, Jan Jakub Michaćek, Krzysztof Szczygielski

ABSTRACT

Objective: The main objective of this article is to study the empirical relationship between innovations and export performance of Polish firms.

Research Design & Methods: Our analytical framework refers to the most recent strand in the new trade theory literature based on the Melitz (2003) model that stresses the role of firm heterogeneity and the importance of firm productivity in entering export markets. We treat innovations as a key element that can increase the level of productivity and study the significance of both product and process innovations. The empirical implementation of the theoretical framework is based on the probit model and the unique Polish CIS firm-level dataset covering the period 2008-2010.

Findings: Our estimation results indicate that the probability of exporting is positively related to product and process innovations, firm size, the share of university graduates in productive employment and foreign capital participation. The results depend also on the level of technology used in the analysed sector and the relative importance of export market.

Implications & Recommendations: It is necessary to develop an innovation supporting mechanism that would stimulate both product and process innovations in Poland.

Contribution & Value Added: The originality of this work lies in the use of the unique Polish CIS firm level dataset that allows distinguishing between product and process innovations.

Article type: research paper

Keywords: export performance; firm heterogeneity; innovations; Poland; probit model

JEL codes: F14, P33

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INTRODUCTION

Innovation is one of the key terms related to the modernization and development of the EU economy. However, empirical studies devoted to the subject in the context of international competitiveness at firm level are relatively few. Innovation activities cover product and process innovations as well as the creation of intellectual property rights related to patents and trademarks. Previous studies have focused almost exclusively on the analysis of companies in developed countries such as Germany or the United Kingdom, with a high levels of firm innovation. These studies have mainly focused on product and process innovation.

One of the key elements of innovation activity, analysed in the context of firm export performance in the old EU-15 member states, is research and development (R&D) activity. This activity is described as the process of systematic creative work that combines both basic and applied research aimed at extending the company's knowledge resources and its practical application. Measures of innovative activity of companies can include spending on R&D as well as its effects, such as patents and share of new products in total sales. R&D may result in improved efficiency of the company.

The main objective of this paper is to study the relationship between innovation of Polish firms and their export competitiveness. In particular, we empirically validate the main hypothesis concerning the positive relationship between innovation activities and exports performance using the probit model. In contrast to previous studies that use R&D spending as a measure of innovation, we focus on innovation outcomes. Our detailed hypotheses postulate the existence of positive relationships between firm export performance and different types of innovation activities: product and process innovations. We seek to determine which of the aforementioned types of innovation activity is of the greatest importance for exporting and whether it depends on firm size, the level of internationalization, the use of human capital and its sector of activity. In addition, we take into account the intellectual property creation at firm-level. Our study is based on Polish firm-level data for the period 2008-2010.

The results of our study can contribute to proposing a set of policy conclusions that can apply to Poland and other New Member States (NMS) of the European Union. The firms from those countries are lagging behind in terms of innovation activities and their presence in foreign markets is still limited compared to the firms from the old EU-15. This is particularly important in the light of changes in the allocation of the EU funds in the current Financial Perspective, i.e. increasing expenditure for innovative firms, aimed at increasing their presence in the global markets. This study should also contribute to a better understanding of the mechanisms of cooperation between managers, engineers, scientists and research centres serving to create new processes, products and technological progress as well as social development of the NMS.

The structure of this paper is as follows. In the next section we provide the literature review. Then, we describe the dataset and the analytical framework. Subsequently, we present and discuss our empirical results. The last section summarizes and concludes.

LITERATURE REVIEW

There is an extensive theoretical literature on the determinants of innovation and their consequences for productivity and exporting. In particular, a key hypothesis in this literature is that innovation is a driver of productivity improvement that in turn could stimulate exports. This literature has identified two main types of innovation: product innovation and process innovation. Product innovation is a key factor for successful market entry in models of creative destruction and Schumpeterian growth while process innovation reduces costs of production and improves firm's market position. Both modes of innovation are expected to raise firm's productivity and propensity to export.

The early endogenous growth theory literature traditionally stressed the importance of product innovation in for economic growth in a world where consumers have a desire for variety and/or a high quality of available products (Grossman & Helpman, 1991).¹ Later, economists started to explore the potential differences between product and process innovation focusing on heterogeneous agents and technological unemployment (Foellmi & Zweimüller, 2006). In dynamic models with heterogeneous firms (Jovanovic, 1982; Hopenhayn, 1992; Melitz, 2003; Grossman, Helpman & Szeidl, 2006), investment in firm-specific assets that could be associated with product innovation led to a selection of firms. The least productive ones did not participate in the market at all and the most productive ones supplied consumers not only at home but also abroad (through exports), while those with an intermediate productivity only faced demand from domestic consumers. In this context, investment in firm-specific assets and a high total factor productivity were considered as the key determinants of a firm's export propensity.²

Most recently, Atkeson and Burstein (2007) and Constantini and Melitz (2008) have analysed dynamic industry models to formalize the relationships between firm-level productivity and the choices of both to export and to invest in R&D or adopt new technology. In these models, productivity distinguishes heterogeneous firms, and its evolution is endogenous and affected by innovation decisions at the firm level apart from a stochastic component.

There is also extensive empirical literature that points to a positive impact of innovation as such on exports at the firm- or plant-level. The majority of the existing studies rely on R&D expenditures as an indirect measure of innovations (Hirsch & Bijaoui, 1985; Kumar & Siddharthan, 1994; Braunerhjelm, 1996; Basile, 2001). Early empirical studies (Hirsch & Bijaoui, 1985; Schlegelmilch & Crook, 1988) that looked into the effects of innovations on exports used measures of innovation input and arrived at mixed conclusions (Ebling & Janz, 1999).

¹ However, the literature on the relationship between innovation and international trade is much less numerous. International economics focuses on the role of product innovation for trade in open economy growth models (Dollar, 1986; Jensen & Thursby, 1987; Grossman & Helpman, 1989; 1990; 1991; Segerstrom, Anant & Dinopoulos, 1990).

² At the same time the early industrial organization literature stressed the role of marginal cost-reducing innovations (i.e. expenditures for research and development for the sake of process innovation) in international oligopoly models (Spencer & Brander, 1983). According to this literature a higher investment in such process innovations increases a firm's output sold in domestic and foreign markets. Subsequent research focused on the relationship between process innovation and competitive pressure at the local (Martin, 1993) and the global level (Baily & Gersbach, 1995).

In addition, there is a limited number of studies that employ survey data with explicit information on the actual innovations (Wakelin, 1998; Bernard & Jensen, 1999; Roper & Love, 2002; Lachenmaier & Wößmann, 2006). In particular, firm-level studies which used more direct measures of innovation output (i.e., actual innovations) are those of Wagner (1996) and Wakelin (1997; 1998). Wagner (1996) used a sample of firms in the German State of Lower Saxony and found a positive impact of new products introduced on exports. Wakelin (1998) employed British data and reported a positive impact of innovating on the intensive and extensive margins of exports at the firm level. Overall, these studies find a strong positive impact of innovations on export performance.

There is also some evidence on a systematic determination of innovation. Probably, the first empirical study on the impact of endogenous innovations on exports is the one by Entorf, Krader and Pohlmeier (1988). They estimated a simultaneous equation system of exports, innovation, and labour demand and identify not only a positive impact of innovations (captured by an indicator variable) on exports but also one of exports on innovations based on data from the Ifo Innovation Survey. Ebling and Janz (1999) studied the impact of innovations (captured by a binary variable) on the extensive margin of exports in the service sector, using data for 1997 from the Mannheim Innovation Panel. Their results were based on a two-step probit model and simultaneous probit models and pointed to a positive impact of innovations on exports, but not vice versa.

Van Beveren and Vandebussche (2010) analysed the relationship between firm-level innovation activities and firms' propensity to start exporting for Belgian firms. They measured innovation by innovative effort (R&D) as well as by innovative output (product and process innovation). Their evidence pointed to firms self-selecting into innovation in anticipation of their entry into export markets, rather than product and process innovation triggering entry into the export market. Their results suggested that governments could foster firm-level innovation through trade liberalization.

While Cassiman and Martínez-Ros (2007) found support for the product innovation–productivity–export link in data on Spanish firms, the reverse causal direction (exporting–process innovation–productivity growth) was investigated with a less success. Cassiman, Golovko and Martínez-Ros (2010) argued that the positive association found between firm productivity and exports in the literature relates to the firm's innovation decisions. Using a panel of Spanish manufacturing firms they find strong evidence that product innovation – and not process innovation – affects productivity and induces small non-exporting firms to enter the export market.

Caldera (2010) investigated the relationship between innovation and the export behaviour of Spanish firms over the period 1991–2002. He presented a simple theoretical model of the firm decision to export and innovate that guides the econometric analysis. Consistent with the predictions of the theoretical model, the econometric results suggested a positive effect of firm innovation on the probability of participation in export markets. The results further revealed the heterogeneous effects of different types of innovations on the firm export participation. In particular, product upgrading appears to have a larger effect on the firm export participation than the introduction of cost-saving innovations. These findings were robust to firm unobserved heterogeneity, dynamic specifications, and to the use of instrumental variables to control for the potential endogeneity between innovation and exporting.

Lachenmaier and Wößmann (2006) used instrumental-variables procedures to estimate the impact of potentially endogenous innovations on exports based on the firm level data on 981 German firms for the year 2002. Their focus was on total innovations, but they also looked into product versus process innovations in one of their specifications. In broad terms, they found that impediments to innovations matter and that such variables could be used as identifying instruments for innovations. Their results showed that treating innovations as exogenous may lead to largely downward-biased estimates of the impact of innovations on firm-level exports.

Most recently, Becker and Egger (2013) also studied the effects of new product versus process innovations on export propensity at the firm level in Germany. They hypothesized that in line with the new trade theory product innovation should be relatively more important than process innovation. They investigated this hypothesis in a rich survey panel data set with information about new innovations of either type. With a set of indicators regarding innovation motives and impediments and continuous variables at the firm and industry level at hand, they determined the probability of launching new innovations and their impact on export propensity at the firm level through a double treatment approach to account for self-selection of firms into either type of innovation. Their results point to the importance of product innovation relative to process innovation for the decision to export. Firms that perform both process and product innovations have a higher probability to export than firms that do not innovate; however, when performed alone, product innovation is more important in the exporting behaviour of a firm than is process innovation. This can be viewed as evidence on the importance of the extensive margin in product space for a firm's entry into export markets. While process innovations increase a firm's probability to export only when being combined with product innovations, they marginally raise a firm's export-to-sales ratio at the intensive margin.

Hence, the majority of empirical studies for the old EU-15 countries find support for the positive relationship between various types of innovations and exporting. In particular, these studies find that firms that introduce either process or product innovations exhibit a higher probability to export than firms that do not innovate. However, product innovations seem to be more important in determining the export performance of firms than process innovations.

In the context of the new EU member states empirical evidence on the relationship between innovation and exporting is scarce. The only exception, to the best of our knowledge, is the study by Damijan, Kostevc and Polanec (2010) who explored the causal links between innovation and export activities of firms in Slovenia. First, from product innovation to productivity and to decision to export may effectively explain how a firm's decision to invest in R&D and to innovate a product drives its productivity and triggers the decision to start exporting. Second, in the opposite direction, the link going from exporting to process innovation to productivity growth may be crucial to understand how export activity can force a firm to engage in process innovation, which in turn improves its productivity growth in the long run. Their empirical approach is to tackle both sides of this causality link using Slovenian microdata, including financial data, innovation survey data, industrial survey data, as well as information on trade flows, for the period 1996-2002. Their dataset allows them to test the prediction that a firm's innovation

enhances its probability of becoming an exporter, and the prediction that learning effects of exporting will translate to a greater effort to innovate and thus to improvements in productivity.

They found no evidence that either product or process innovations increases the likelihood that a firm becomes a first-time exporter. However, they found evidence that past exporting status increases the probability that medium and large firms will become process innovators. At the same time they found no impact of past exporting on product innovations. Thus, their results did not confirm the implications of the Constantini and Melitz (2008) model and the findings of Aw, Roberts and Xu (2009) that in the case of Slovenian firms the linkage from product innovation to productivity growth drives the self-selection of more productive firms into exporting. However, they found some evidence in favour of learning-by-exporting of Slovenian firms, which was already indicated by Damijan and Kostevc (2006), De Loecker (2007) and Hagemeyer and Kolasa (2008). In particular, Damijan and Kostevc (2006) demonstrated that these learning-by-exporting effects occur through the mechanism of process innovation enhancing firm technical efficiency and not through introduction of new products. It is important to note, however, that the results of the study by Damjan *et al.* (2010) may not generalize to the whole group of the new EU member states as Slovenia is a small open economy with the highest level of development among the NMS.

The empirical evidence on the link between innovation and export performance for Poland is virtually non-existent. The previous studies such as Cieřlik *et al.* (2012; 2013; 2014; 2015) stress the importance of R&D expenditure for the probability of exporting. However, so far no attempt has been made to study the link between innovation outcomes and the probability of exporting for Poland. Therefore, in this article we investigate empirically whether various innovative activities contribute to increased efficiency of firms from Poland and whether they improve their ability to compete and stay at international markets. First, in contrast to previous studies conducted for selected EU-15 countries, our study is based on the unique firm-level dataset collected by the Polish Central Statistical Office (CSO). This allows us to analyse the relationship between innovative activities and exporting for both all the Polish as well as particular groups of the firms depending on the origin of their ownership. Second, in contrast to previous empirical studies we distinguish and examine the relative importance for exports of two main types of innovation: product and process innovations as well as patents and trademarks that reflect the investment in firm-specific assets. Moreover, we identify the relative importance of specific types of innovation activities for the international competitiveness of firms from Poland, which are much less innovative when compared to companies from the old EU-15 member states. Finally, we distinguish between all exporters and firms for which exporting constitutes an important fraction of their sales.

In addition, our study will allow formulating specific recommendations for economic policy in Poland and other NMS, especially for policies to encourage innovation in these countries which differ from the old EU member states in terms of the level of economic development. As regards possible conclusions for economic policy for the old EU-15 countries, the findings of the previous studies suggest that policy instruments should be targeted towards specific innovations rather than innovation input, if these countries want to improve their export competitiveness in world markets. In particular, some

authors have argued that in the case of the old EU-15 countries subsidies and other programs aiming at product innovations should be on average more likely to cause entry into export markets than general expenditures on R&D or legal environments which particularly favour process innovations.

MATERIAL AND METHODS

The new strand in the trade theory argues that the level of firm productivity is critical for exporting. In particular, the Melitz (2003) model points at the existence of a positive relationship between firm productivity and export performance. In his model productivity differences among firms are exogenously given and each firm has to pay fixed costs of entry into domestic and foreign markets. The majority of empirical studies find support for the theoretical prediction of the Melitz model, i.e. that more productive firms self-select into foreign markets. The survey of early empirical evidence on the relationship between firm productivity and exporting was provided by Tybout (2003). The extensive summaries of more recent empirical evidence on this relationship in particular countries were offered by Wagner (2007, 2012). According to the first survey by Wagner (2007), a large number of studies using data from different countries, report results showing that exporters and importers are more productive than non-exporters and non-importers. In particular, he argued that future exporters tend to be more productive than future non-exporters in the years before they enter the export market. Moreover, the empirical results for post-entry differences in performance between exporters and non-exporters point to faster productivity growth for the former group in only some studies. This picture was largely confirmed in the recent survey by Wagner (2012), i.e. his review provides extensive evidence in favour of the self-selection hypothesis. Therefore, in our paper we refer to the self-selection hypothesis.

As the main objective of this article is to study the relationship between innovation of Polish firms and their export performance we use the unique Polish CIS firm-level dataset covering the period 2008-2010. The Community Innovation Survey (CIS) is the principal survey of the innovation activities of firms in the European Economic Area and the EU candidate and associate countries. The methodology of the survey is based on the Oslo Manual, first published in 1992 and then revised in 1996 and 2005. The CIS contains questions referring to revenue and expenditure in the most recent years (e.g. in 2010 in CIS 2008-2010), as well as questions about various aspects of innovation in the three years preceding each edition of the survey (e.g. in 2008-2010). Apart from innovation-related information firms are required to answer questions about their revenue; the number of staff; whether they are members of groups of firms (where a group of firms is defined as a set of companies owned by the same person or entity), and if so then where is the mother company located; whether they have exporting activities and what is the main markets to which they sell.

However, the firm-level data from the CIS are not easily available for Poland. They are not available for researchers at the Eurostat's Safecentre in Luxembourg. It is possible to purchase raw data, but the information about revenues and expenditure is considered confidential, resulting in considerable restrictions with respect to the scope of data made available to researchers.

This study is based on the Polish dataset for manufacturing companies patterned on CIS 2010 with some alterations. Due to the confidentiality conditions imposed by the Polish Central Statistical Office (CSO), data on revenue and the exact number of staff was unavailable; instead we only had information on the firm size category (i.e. small, medium, big). Data on innovation expenditure was available only on a per-capita basis. In comparison to the CIS survey in the Polish dataset there is additional information on the number of production lines both automatic and controlled by computers. All of the manufacturing firms employing more than 49 persons were surveyed, as well as a sample of firms employing 10-49 people. This resulted in 9,841 in the 2010 CIS.

In our study we refer to the classification of manufacturing industries proposed by the OECD (2012). According to this classification there are 4 categories based on R&D intensities described in detail in the Annex.³

Our dependent variable, export performance, indicating the export status of the firm takes two main forms based on the Polish CSO questionnaire. The first form of the variable (*exporter*) takes value zero if the firm sells its output only in the domestic market, and one otherwise, i.e. if it sells also some of its output abroad. The second form of the variable (*exporter_plus*) takes value one if the foreign market is declared by the firm as *the* most important market for its output and zero otherwise.

It is worth stressing that, given the nature of our research problem, we have to rely on binary variables as dependent variables. This is due to the nature of the CIS questionnaire that includes neither the information on absolute export revenue, nor the information on the share of export revenue in firm's total turnover.⁴

In our study we selected a number of independent variables chosen from the survey, which should reflect the innovation efforts and important characteristics of analysed firms. The definitions of independent variables are presented in the Table 1. We interpret variables 1 through 4 as characteristics of a firm's production factor endowment. In particular, *prod_lines* reflects capital endowment, *HC* – human capital endowment, and the dummy variables for firm size (*medium*, *large*) – labour endowment. Variables 5 through 7 are key characteristics of firm innovation performance, while variables 8-13 refer to the membership of firms in domestic or foreign capital groups. Finally, variables 14-16 characterize the sectors in which firms operate according to their technology intensity: controlling for sectoral effects is standard in innovation studies.

Since our dependent variables are binary variables to estimate the postulated relationship between the probability of exporting and various forms of innovation we use the probit model. The main advantage of this approach is that the dependent variable does not have to be continuous.

³ In the past the methodology used three indicators of technology intensity reflecting, (1) R&D expenditures divided by value added; (2) R&D expenditures divided by production; and (3) R&D expenditures plus technology embodied in intermediate and investment goods divided by production. The updated 2001 Scoreboard used ISIC Rev. 3 R&D expenditure and output data to develop an updated technology classification based on an evaluation of R&D intensities for 13 OECD countries for the period 1991-1997. The new edition extends the analysis to cover the period 1991-99, although for only 12 OECD countries.

⁴ In their study of innovation complementarities, Lewandowska, Szymura-Tyc and Gołębiowski (2016) use the percentage of export revenues from new products in firm's total export revenues as the dependent variable. While this information is available in the CIS database, we cannot, unfortunately, use it to validate our hypothesis, which refers to firm's export orientation (as opposed to the focus on the domestic market).

Table 1. List of independent variables used in the empirical analysis

No.	Variable	Explanation of the variable
1.	<i>prod_lines</i>	Number of automatic product lines and controlled by the computers
2.	<i>medium</i>	Dummy variable indicating employment between 50 and 249 persons
3.	<i>large</i>	Dummy variable indicating employment exceeding 250 persons
4.	<i>HC</i>	Human Capital: the percentage of employees with tertiary education
5.	<i>product_innov</i>	Dummy variable indicating the market introduction of a new or significantly improved good or service with respect to its capabilities, user friendliness, components or sub-systems.
6.	<i>process_innov</i>	Dummy variable indicating the implementation of a new or significantly improved production process, distribution method, or supporting activity.
7.	<i>intell_prop</i>	Dummy variable indicating applications for patents, inventions, trademarks, made in the Polish Patent Office
8.	<i>group_pl</i>	Dummy variable for the membership in the Polish capital group
9.	<i>group_fdi</i>	Dummy variable for the membership in the foreign capital group
10.	<i>group_de</i>	Dummy variable for the membership in the German capital group
11.	<i>group_fr</i>	Dummy variable for the membership in the French capital group
12.	<i>group_us</i>	Dummy variable for the membership in the American capital group
13.	<i>group_other</i>	Dummy variable for the membership in the other foreign capital group
14.	<i>ht</i>	Dummy variable for the high technology industry. The technology intensity of the manufacturing industries depends on R&D intensities. See: the Eurostat classification of R&D intensities in the Annex.
15.	<i>mht</i>	Dummy variable for the medium-high technology industry. See: the Eurostat classification of R&D intensities in the Annex.
16.	<i>mlt</i>	Dummy variable for the medium-low technology industry. See: the Eurostat classification of R&D intensities in the Annex.

Comment: The variable *prod_lines* was used only in the Polish version of the questionnaire, as applied by the Polish Central Statistical Office (CSO).

Source: own study.

Our dependent variable indicating the export status of firm i is denoted by Y_i^* . Instead of observing the volume of exports, we observe only a binary variable Y_i indicating the sign of Y_i^* , i.e. whether the firm sells its output in the domestic market (local, regional or national) or it exports. Moreover, we assume that the variable Y_i^* follows $Y_i^* = \mathbf{X}_i\boldsymbol{\Theta} + \varepsilon_i$, where the error term ε_i is independent of \mathbf{X}_i which is a vector containing explanatory variables that affect exports with the first term equal to unity for all i , $\boldsymbol{\Theta}$ is the vector of parameters on these variables that needs to be estimated and ε_i is assumed to be normally distributed with a zero mean.

Our dependent variable follows a binary distribution and takes the value 1 when the firm exports and 0 otherwise:

$$Y_i = \begin{cases} 1 & \text{if } Y_i^* > 0 \\ 0 & \text{if } Y_i^* = 0 \end{cases} \quad (1)$$

We can obtain the distribution of Y_i given \mathbf{X}_i . Hence, the probability that a firm exports can be written as:

$$P(Y_i = 1|\mathbf{X}_i) = \Phi(\mathbf{X}_i\boldsymbol{\theta}) \quad (2)$$

where:

$\Phi(\cdot)$ - denotes the standard normal cumulative distribution function (cdf).

To be able to successfully employ the probit model, it is important to know how to interpret the vector of estimated parameters on the explanatory variables $\boldsymbol{\theta}$. Consider a specific explanatory variable x_{ij} , which is an element of vector \mathbf{X}_i . The partial effect of x_{ij} on the probability of exporting can be written as:

$$\frac{\partial P(Y_i = 1|\mathbf{X}_i)}{\partial x_{ij}} = \frac{\partial p(\mathbf{X}_i)}{\partial x_{ij}} \quad (3)$$

When multiplied by Δx_{ij} equation (3) gives the approximate change in $P(Y_i = 1|\mathbf{X}_i)$ when x_{ij} increases by Δx_{ij} , holding all other variables constant.

RESULTS AND DISCUSSION

In this section we present and discuss two sets of estimation results using two different definitions of dependent variables. First, in column (1) and (2) we discuss the results for firms that do export at least some of their output, and then in columns (3) and (4) for those for which export markets constitute the main market. The estimation covers period 2008-2010 and is obtained using the robust standard errors. The results of estimations are reported in the Table 2.

In column (1) of Table 2 we report the benchmark results on the relationship between innovation activities and export performance obtained for firms that do export at least some output. These results reveal that the estimated parameter on both measures of innovations, i.e. on product and process innovations, display expected positive signs, similar magnitudes and are statistically significant at 1% level. This means that the higher level of both product and process innovations are positively related to the higher probability of exporting.

We also investigated whether the probability of exports depends on the in-house creation of firm specific intangible assets by Polish firms. The control (*intell_prop*) variable used here is the measured by the number of firm applications for patents, inventions, trademarks, made in the Polish Patent Office. The estimated parameter for this variable is positive, but statistically not significant.

The other control variables are statistically significant at 1% level and reveal the expected signs. In particular, both variables describing firm size (*medium* and *large*) display large values and positive signs. The estimated parameter for large firms is bigger in comparison to medium firms, indicating the importance of economies of scale for exporting. The estimated parameter on the stock human capital (HC) variable, describing percentage of employees with tertiary education, also displays a positive signs and is statistically significant at 1% level. Thus, a larger percentage of educated employees can be positively associated with probability of exporting. The number of product lines (*prod-lines*), proxying for the stock of capital and the differentiation of production profile, also reveals a positive sign, and is statistically significant at 1% level. Thus, the larger number

of products offered, reflecting probably the larger stock of capital, can positively affect the probability of exporting.

Table 2. The list of estimated models

Dependent variable:	exporter (1)	exporter (2)	exporter_plus (3)	exporter_plus (4)
Independent variables:				
prod_lines	0.013*** (0.004)			0.000 (0.002)
HC	0.006*** (0.001)			-0.006*** (0.001)
medium	0.605*** (0.031)			0.344*** (0.034)
large	0.968*** (0.061)			0.656*** (0.052)
product_innov	0.223*** (0.049)			-0.197*** (0.047)
process_innov	0.245*** (0.047)			0.025 (0.043)
intell_prop	-0.001 (0.006)			-0.012** (0.005)
group_pl	-0.216*** (0.051)			-0.331*** (0.056)
group_fdi	1.030*** (0.109)			
group_de		1.104*** (0.148)		0.903*** (0.096)
group_fr		1.596*** (0.342)		0.816*** (0.146)
group_us		0.819*** (0.233)		0.904*** (0.162)
group_other		0.937*** (0.124)		0.798*** (0.086)
group_fdi x product_innov	-0.148 (0.156)	-0.142 (0.157)	0.209** (0.091)	0.211** (0.091)
group_fdi x HC	-0.012*** (0.003)	-0.011*** (0.003)	-0.005* (0.003)	-0.005* (0.003)
group_fdi x intell_prop	0.046 (0.052)	0.049 (0.055)	-0.042 (0.026)	-0.042 (0.026)
mlt	0.257*** (0.032)	0.257*** (0.032)	0.133*** (0.033)	0.134*** (0.033)
mht	0.445*** (0.041)	0.446*** (0.041)	0.360*** (0.038)	0.359*** (0.038)
Ht	0.060 (0.082)	0.066 (0.082)	0.203** (0.085)	0.204** (0.084)
constant	-0.344*** (0.029)	-0.344*** (0.029)	-0.995*** (0.033)	-0.995*** (0.033)
Observations	9,846	9,846	9,846	9,846
Pseudo R ²	0.136	0.137	0.0825	0.0826
Log-likelihood	-5358	-5354	-5192	-5191

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Source: own calculations in STATA.

Furthermore, the probability of exporting in Poland depends on the sector of economic activity. Our estimations results reveal that the largest probability of exporting exists in the medium-high technology sectors, such as of electrical equipment, motor vehicles, trailers or other transport equipment. The estimated parameter for *medium-high-tech* variable is positive and statistically significant at 1% level. The parameter for *medium-low-tech* is also positive and statistically significant at 1% level. Thus, Polish firms active in the sectors such as manufacturing of coke, basic metals or rubber and plastics have higher chances to be exporters. On the other hand, the firms active in *low-tech* sectors – such as production of food products, beverages and tobacco, textiles or wearing apparel and in *high-tech* sectors (e.g. production of pharmaceutical products, computers or electronic products) are also less export oriented. This pattern of export propensities in Poland reflects neoclassical pattern of trade analysed in other studies (Michałek & Ślędziewska, 2003). Poland, in comparison to other major partners from the

EU-15, has revealed comparative advantage in more labour intensive sectors and capital intensive sectors.

Finally, the propensity to exports depends on the ownership structure. The variable *group-pl* displays a negative sign and is statistically significant at 1% level. This result indicates the Polish-owned firms organized in capital groups are less export oriented compared to non-organized firms. On the other hand, the variable describing membership in foreign capital group *group_fdi* displays a positive sign and is statistically significant at 1% level. Therefore, one can argue, the membership in the foreign capital group increases the probability of exporting. The similar results have been demonstrated in other empirical studies for other EU countries.

In column (2) of Table 2 we extend the study of the ownership structure and split the *group_fdi* variable into its major components. The variable *group-pl* still displays a negative sign and is statistically significant at 1% level. This result indicates the Polish-owned firms are less export oriented. On the other hand, all variables describing foreign ownership display positive signs and are statistically significant mostly at 1% level. The highest values of estimated parameters are reported in the case of French (*group_fr*) and German (*group_de*) owned firms. Both of them are significant at 1% level. The lower values of parameters are displayed in the case of the US owned firms and firms from other countries.

In column (3) we report the results obtained for firms heavily depending on exports, for which the foreign market is the principal one. These results reveal some degree of similarity compared to the results reported in column (1). Main similarities include the importance for exporting and statistical significance of the size of the firm (medium and large), the ownership group variables and to some extent also the sectors of economic activity. The same sectors include medium low and medium high sectors which are more export oriented compared to the low tech sector.

The main difference with respect to the previous results is in the high technology sector which is more export oriented in the case of firms heavily depending on exports. On the other hand, the variables related to product innovations (*product_innov*), human capital (*HC*) and intangible assets (*intell_prop*) are statistically significant but display counterintuitive, negative signs. We try to explore these counterintuitive results in column (4) in which we add three interaction variables: *group_fdi* x *product_innov*, *HC* x *group_fdi* and *intell_Prop* x *group_fdi*.

The first interaction term displays a positive sign and is statistically significant at 1% level. This means that firms that belong to a foreign group and introduce more new or significantly improved products have higher propensity to export. The second interaction term also displays a positive sign and is statistically significant at 1% level. This means that firms that belong to a foreign group and employ more educated employees have higher propensity to export. Finally, the third interaction term displays a negative sign and is statistically significant at 1% level. This means that firms that belong to a foreign group and make less applications for patents, inventions, trademarks in the Polish Patent Office, have higher propensity to export. This result might be due to the fact that a large fraction of Polish exports is accounted for by subsidiaries of multinational firms that do not register their patents and trademarks in Poland, but rather use the intellectual property created and protected by their parent firms. It can be also the case that large

exporters may benefit from large scale of production that reduces average costs of production and are less interested in introducing innovations.

CONCLUSIONS

In this paper we studied the relationship between various types of innovations and export performance of Polish firms. Our analytical framework referred to the most recent strand in the new trade theory literature based on the Melitz (2003) model that stresses the importance of firm productivity in entering the export markets. The empirical implementation of the theoretical framework was based on the probit model and the unique Polish firm level data set covering the period 2008-2010.

In our approach we treated innovations as a key element that can increase the level of productivity and focused our analysis on both product and process innovations as well as intellectual property creation. We also tried to control for human capital and physical capital proxied by the percentage of employees with tertiary education and the number of production lines, respectively. In addition, we studied the role of foreign capital participation in determining firm export performance. In particular, we controlled for the country of origin of major investors in Poland.

Our estimation results indicate that the probability of exporting was positively related to product and process innovations, firm size, the share of university graduates in productive employment and foreign capital participation in the case of firms that export at least some fraction of their output. These results suggest the need for development of an innovation supporting mechanism that would stimulate both product and process innovations in Poland.

In the case of firms heavily dependent on exports the roles of innovations and intellectual property creation were obvious. The results depended also on the level of technology used in the analysed sector. In particular, the firms that operated in the medium high technology and medium low technology sectors were more export oriented in the case of all firms that export. Moreover, firms that were heavily dependent on exports revealed a higher propensity to export in the high technology sector but were less interested in introducing innovations. In future studies it would be desirable to investigate the robustness of these results using other estimation methods. In particular, the use of the logit model would be highly recommended.

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Appendix

Table A1. Classification of manufacturing industries into categories based on R&D intensities

High-technology industries	NACE-Rev-2 classification
Manufacture of basic pharmaceutical products and pharmaceutical preparations	21
Manufacture of computer, electronic and optical products	26
Medium-high-technology industries	
Manufacture of chemicals and chemical products	20
Manufacture of electrical equipment	27
Manufacture of machinery and equipment n.e.c.	28
Manufacture of motor vehicles, trailers and semi-trailers	29
Manufacture of other transport equipment	30
Medium-low-technology industries	
Manufacture of coke and refined petroleum products	19
Manufacture of rubber and plastic products	22
Manufacture of other non-metallic mineral products	23
Manufacture of basic metals	24
Manufacture of fabricated metal products, except machinery and equipment	25
Low-technology industries	
Manufacture of food products	10
Manufacture of beverages	11
Manufacture of tobacco products	12
Manufacture of textiles	13
Manufacture of wearing apparel	14
Manufacture of leather and related products	15
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	16
Manufacture of paper and paper products	17
Printing and reproduction of recorded media	18
Manufacture of furniture	31
Other manufacturing	32

OECD Directorate for Science, Technology and Industry 7 July, 2011 Economic Analysis and Statistics Division, ISIC Rev. 3 Technology Intensity Definition, 7 July, 2011

Source: Eurostat (2016).

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The contribution of co-authors is equal and expressed as 1/3 (33.33%) each of the authors.

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Identification of Linkages between the Competitive Potential and Competitive Position of SMEs Related to their Internationalization Patterns Shortly after the Economic Crisis

Piotr Trąpczyński, Barbara Jankowska, Marlena Dzikowska, Marian Gorynia

ABSTRACT

Objective: We aim to identify internationalization profiles of SMEs for the period immediately following the global economic crisis (years 2010-2013) and characterise them with reference to the firms' competitive potential during the crisis (year 2009), and their competitive position at the end of the analysed period.

Research Design & Methods: The study is based on a complementary data set derived from secondary (AMADEUS database) and primary sources of information (computer assisted telephone interviews with top managers) for 553 micro, small and medium firms located in Poland. We conduct a cluster analysis to identify different internationalization profiles of SMEs for the years 2010-2013.

Findings: In the year of the global economic crisis ambitious investors on average had at their disposal substantially better competitive potential than the remaining two groups. Ambitious exporters were better equipped than cautious internationalizers only in terms of human resources, intangible resources and quality control.

Implications & Recommendations: Policy support should be particularly oriented towards supplying information about foreign markets and fostering firms in an optimal allocation of their resources.

Contribution & Value Added: The study suggests that the strategy of diversifying international markets during the economic crisis and recovery can be a means of improving performance and reducing excessive dependence on fluctuations in key markets.

Article type: research paper

Keywords: internationalization; SME; economic crisis; Poland; competitiveness

JEL codes: F23, F44, L25, M16

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INTRODUCTION

Poland is often regarded as a country, which had not been significantly affected by the global economic crisis. In fact, Poland's annual GDP growth in 2009 amounted to 2.63% as opposed to the average for OECD members of -3.94% (World Bank, 2012). Undoubtedly, the expansion of a nation's exports has positive effects on the growth of the economy as a whole, as well as on individual firms (Cavusgil & Nevin, 1981). Additionally, an extensive network of international operations allows firms to react swiftly to unexpected declines in demand or increases in production factor prices in both domestic and international markets, as it allows to shift sales to customers in more munificent environments or benefit from operational flexibility and move operations to less costly locations (Kogut & Kulatilaka, 1994; Roberts & Tybout, 1997). At the same time, the capacity of the firms to react actively to the challenges brought by the crisis, deeply influences the ability of the whole economy to recover from it. From this perspective changes in internationalization level of companies during economic crisis period is an interesting research area worth further investigation. It is especially important in terms of a country that was performing relatively well in terms of its economic results during the global economic crisis (Poland) and relations of international expansion issue with aspects of firm competitiveness in general. Therefore, the scientific problems undertaken in this paper is the identification of internationalization profiles of Polish SMEs for the period following global economic crisis and their background in terms of the competitive potential possessed by those companies before that period and the competitive position occupied by them at its end.

Macroeconomic data indicate that changes in terms of Polish companies involvement into foreign markets were taking place during the global economic crisis. This evidence pertains to the most advanced form of firm internationalization, i.e. foreign direct investment (FDI): net outflows from Poland in 2009 grew by 21.51%, as compared to a sharp decline of 32.85% for the OECD group. This can reflect a relatively high immunity of Polish firms to the economic downturn and increase in Polish companies' interest in expansion to foreign markets (Gorynia, Nowak, Trąpczyński & Wolniak, 2015b). Still, the export of goods and services from Poland in 2009 decreased by 6.28%, and it was accompanied by a decrease in import of goods and services amounting to 12.38% (as opposed to a decline of respectively 11.40% and 11.76% for the OECD group) (World Bank, 2016).

Adopting a microeconomic perspective towards Polish companies, in particular small and medium enterprises (SMEs), extant studies point to clearly negative effects of the crisis for domestic firms, including *inter alia* the decline of orders, sales, delayed or cancelled payments (Orłowski, Pasternak, Flaht & Szubert, 2010), decline in corporate value and increase in costs (Grądzki & Zakrzewska-Bielawska, 2009; Brojak-Trzaskowska & Porada-Rochoń, 2012). Additionally, the study of Zelek and Maniak (2011) suggest that SMEs most frequently recurred to defensive rather than offensive reactions to the crisis. Furthermore, in the context of Polish SMEs there was evidence of a rather low perceived effectiveness of expansion to new markets (Burlita, Bursiak, Grzesiuk, Lachowska, Maniak, Świergiel & Zelek, 2011). Nevertheless, in the post-crisis time firms can respond to changes in external settings by *inter alia* extending or limiting their international opera-

tions, and deepening or shallowing their internationalization level. Thus, the aim of our study is threefold. Firstly, we aim to identify the internationalization profiles of Polish SMEs in terms of their internationalization after the global economic crisis (years 2010-2013). For this purpose we look at the intensity of internationalization in terms of its breadth and depth. Second, our research is to detect whether the most ambitious internationalization behaviour described by the changes in its depth and breadth can be associated with possessing a superior competitive potential. Third, our investigation is to discover any links between the changes in the depth and breadth of internationalization and competitive position of the firms.

We set out by outlining the conceptual background behind internationalization, firm competitiveness, as well as their mutual relationships. We then use existing literature on the effects of economic crisis on competitiveness and internationalization of firms to formulate hypotheses related to the interplay of firm internationalization and competitiveness under crisis conditions. Subsequently, we present the methodology of our empirical data collection, as well as the findings of the related cluster analysis and the Kruskal-Wallis H test. In the final part of the paper, we discuss the findings and highlight their implications.

LITERATURE REVIEW

Firm Internationalization and Competitiveness

Welch and Luostarinen (1988, p. 36) define firm internationalization as “the process of increasing involvement in international operations”. However, business reality clearly indicates that sometimes firms tend to limit their international commitment. Particularly for firms with less advanced international operations the probability of exiting foreign markets is high (Benito & Welch, 1997). In fact, Benito and Welch (1994) argue that firms learn throughout the process of internationalization, thus adjusting their approach to risk and paying greater attention to subsequent expansion steps. Moreover, since both organizational and environmental complexity rises with the widening of a firm's international operations (Verbeke, Li & Goerzen, 2009), Calof and Beamish (1995) argue that internationalization is related to adapting the firms' operations to international environments, which pertains to their strategy, structure and resources.

One of the key questions in the research on internationalization is whether the increase of its degree is beneficial to firm performance (Verbeke, Li & Goerzen, 2009). Meanwhile, the related academic debate remains inconclusive (Matysiak & Bausch, 2012). It has been argued that the predominant focus on the direct link between internationalization degree and performance is not entirely legitimate, as performance is a derivative of its capabilities, leveraged in international markets (Luo, 2002). Thus, in order to account for the interplay of resources, internationalization, and performance, it appears legitimate to explore the concept of firm competitiveness.

In the presence of numerous determinants of competitiveness, it is relevant to decompose this concept into specific dimensions (Gorynia, Jankowska & Tarka, 2013; Buckley, Pass & Prescott, 1988; Wach, 2014). According to the model of Gorynia (2004; 2005), firm competitiveness can be divided into competitive potential, competitive strategy and competitive position. However, even the deconstruction of the competitiveness concept into competitive potential, competitive strategy and competitive position still does not

allow to conduct its measurement, and therefore, all those dimensions need to be operationalized into variables. Due to the aims of this paper our understanding of competitive potential and competitive position are of special importance. In regard to competitive potential, answering to an issue raised in the literature (Collins, 1991; Porter, 1991; Dess, Gupta, Hennart & Hill, 1995; Spanos & Likoukas, 2001; Sheehan & Foss, 2009), the perspective applied in the paper combines competences (Porter, 1985) and resources (Wernerfelt, 1984; 1995; Prahalad & Hamel, 1990; Barney, 1991; 2002; Barney & Clark, 2009) as sources of a company's competitiveness. Such approach has been also suggested in some previous studies referring to firm competitiveness (Dzikowska, 2014).

On the other hand, competitive position can be defined as the result of market evaluation of a firm's offering. It reflects constant rivalry between competitors and since that it has a dynamic character (Porter, 2006). Variables expressing this dimension can be classified into three basic groups: financial results (i.e. profits, rate of return on assets, rate of return on investments etc.), market results (i.e. profits, market shares etc.) and shareholders results (i.e. shareholder total return, economic value added etc.) (Richard, Devinney, Yip & Johnson, 2009). Additionally, the mentioned variables can be expressed as objective measures (nominal values) or subjective ones (evaluations of respondents).

It is easy to notice that the above mentioned competitive dimensions are inter-linked. Competitive positions are results achieved thanks to the competitive potential used during a competition process, conducted according to a scheme set by a company's competitive strategy that takes into account environmental conditions (Dzikowska, 2014; Jankowska, 2011).

The achievement of a given competitive position is determined by the possession or lack of competitive advantage, which pertains to the ability to survive in the middle- and long-run. Competitive advantage results from "a skilful exploitation of existing potential with the use of appropriate competitive instruments" (Gorynia, Jankowska & Tarka, 2013, p. 28).

The Role of Internationalization Depth and Breadth during Economic Crisis

Many international business studies focus on the relationship between widely understood enterprise's internationalization and its performance. However, at it was already mentioned, the results remain inconclusive. While some results indicate that the relationship between the mentioned variables is linear and positive (Vernon, 1971; Grant, 1987) or negative (Collins, 1990), others suggest existance of U-shaped (Qian, 1997; Elango & Pattnaik, 2009), reverted U-shaped (Ramaswamy, 1995; Gomes & Ramaswamy, 1999) or S-shaped (Contractor, Kundu & Hsu, 2003) relationship. In a call to better explain the performance effects of internationalization, it has been argued that further studies should explore the actual substance of internationalization, rather than simple measures like the share of foreign sales (Verbeke, Li & Goerzen, 2009). While most studies still focus on the effect of the share of foreign sales on firm performance (for an overview see Matysiak & Bausch, 2012), there is also empirical evidence that it is FDI that affects economic outcomes in international markets (Fang, Wade, Delios & Beamish, 2012; Luo, 2002). Hence, we argue that the breadth of internationalization should be distinguished from its depth, the former meaning the number and diversity of foreign markets served by the firm, while the latter referring to the advancement of the commitment of resources to foreign markets. In fact, as it has been argued, the influence of

internationalization on firm competitiveness is contingent upon its stage of advancement (Trąpczyński & Wrona, 2013), which can be measured both along its depth and breadth.

The ability of firms to sustain a favourable competitive position and even improve financial performance during the period of crisis can be enhanced by the possession of appropriate competitive potential in terms of product, process and organizational innovativeness (Antonioli, Bianchi, Mazzanti, Montresor & Pini, 2011; Köksal & Özgül, 2007). Lee, Beamish, Lee and Park (2009) argue, based on their study of Korean exporters during the Asian crisis that firms with a leading market position were the most internationalized. Meanwhile, this relationship was positively moderated by the possession of above-average R&D capabilities (Lee *et al.*, 2009). In the same vein, Filippov and Kalotay (2011) argue that foreign operations of firms whose strategic position was strong already before the crisis, were able to grow more quickly throughout the crisis. As far as the depth of internationalization, i.e. the role of FDI in foreign expansion, is concerned, it has been argued that the crisis increases the propensity of firms to raise control of foreign operations through capital ownership (Williams & Martinez, 2012). In fact, foreign operations with a higher investment of the parent firm show higher survival chances (Chung & Beamish, 2005). Another argument for the particular role of internationalization depth during the crisis pertains to the acquisition mode. In fact, research indicates that recession conditions favour high-performing acquisitions as compared to pre- and post-crisis conditions, which can be related to the emerging takeover opportunities (Wan & Yiu, 2009). Given the above, we propose that:

- Higher competitive potential of SMEs at the outset of the economic crisis is
- H1:** characteristic for firms that increase their internationalization depth rather than breadth thorough the post-crisis period.

The gross financial results of Polish exporters declined from 44.4 billion PLN in the first half of 2008 to 34 billion PLN in the first half of 2009. However, firms specialised in export (whose share of export in total revenues exceeds 70%) managed to increase their results in the same period from 9.2 billion PLN to 12.2 billion PLN (Wołodkiewicz-Donimirski, 2010). Likewise, Amendola, Ferragina, Pittiglio & Reganati (2012) found that Italian exporters from different sectors had higher survival chances, although this relationship was also affected by their liquidity and level of debt. In a similar vein, exporters knowing a variety of host countries and having a network of foreign contacts, were more able to cope with uncertainty related to economic risk, thus achieving higher performance gains (Jansson, Hilmersson & Sandberg, 2010).

In the light of extant research, an extensive network of international operations allows firms to react swiftly to unexpected declines in demand or increases in production factor prices in both domestic and international markets, as it allows to shift sales to customers in more munificent environments or benefit from operational flexibility and move operations to less costly locations (Kogut & Kulatilaka, 1994; Roberts & Tybout, 1997). During the crisis, enhancing internationalization depth in a narrow number of locations may not necessarily be an appropriate solution, since firms seek to limit their investment risk in locations with higher uncertainty (Hryckiewicz & Kowalewski, 2010). In fact, the economic crisis even intensifies the phenomenon of international divestment (Benito & Welch, 1997; Filippov, 2011). Hence, we argue that it is the firms which diversi-

fy risks under crisis conditions by extending internationalization breadth more intensively that will enjoy higher performance gains (Figure 1):

- H2:** The improvement of competitive position of SMEs shortly after the economic crisis is more positive for firms that increase their internationalization breadth rather than depth.

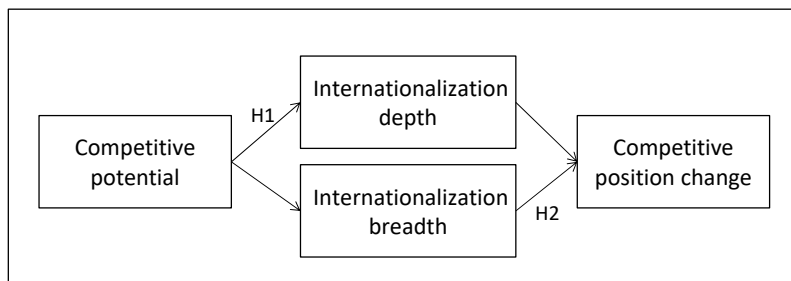


Figure 1. Analytical framework

Source: own study.

MATERIAL AND METHODS

Objective, Methods, Variables and Operationalisation

The objective of the presented study is the identification of the linkages between the competitive potential and competitive position of SMEs in Poland shortly after the economic crisis with regard to their internationalization patterns. To meet this objective we conducted the in-depth literature studies and then we collected primary data on the topic using computer assisted telephone interviews (CATIs). CATIs were conducted with firms fulfilling particular criteria presented in the next section and with the use of a questionnaire. The in-depth critical literature studies proceeded and supported the design of the questionnaire. The results of the literature studies were exploited to properly define the research variables and their measures. The initial version of the questionnaire was discussed with the representatives of firms that were to participate in CATIs and later updated according to their comments. It was necessary to test the the accuracy of the face validity of the questionnaire and check the understanding and unambiguity of questions. Then the authors conducted the pilot study among 154 firms. This allowed for the preparation of the final version of the questionnaire. The questionnaire referred to the competitiveness of the firms, intensity of their internationalization, diversified external circumstances related to demand, competition and resource conditions the firms had to cope with. Nevertheless in the presented paper the authors report just on the results related to the internationalization intensity and the competitiveness of the firms under study. The dimensions of competitiveness of the firms in the years 2009, 2010, 2011, 2012 and 2013 were evaluated with the use of a 7-point Likert scale, with the range of <-3; 3>, where the response -3 stood for "the company was much worse than competitors", and the 3 meant "the firm has been much better than the competitors" (Chang, Chen & Huang, 2015; de Jong, van Dut, Jindra & Marek, 2015; Fernández-Mesa & Alegre,

2015; Nguyen & Rugman, 2015). The internationalization issue was evaluated with regard to the export intensity and intensity of foreign investment.

Table 1. Operationalisation of variables

Variable	Operationalisation	Internal consistency
Internationalization depth		
FDI intensity (<i>IFDI</i>)	The number of new FDI projects undertaken by a firm diminished by the number of previous FDI projects abandoned by a firm in the period 2010-2013.	
Export intensity (<i>EXPI</i>)	The share of export in total sales of the company in the period 2010-2013.	
Internationalization breadth		
Number of new foreign markets in the portfolio of markets (<i>NFM</i>)	The number of new foreign markets a firm entered in the period 2010-2013 diminished by the number of previous markets a firm left in the period 2010-2013.	
Competitive potential in the crisis period (2009)	13 variables on a 7-point Likert scale, where -3 stands for " <i>much worse than direct competitors</i> ", an 3 stands for " <i>much better than direct competitors</i> ". The set of variables included resources and competences.	
Resources	Material resources, human resources, intangible resources (knowledge, brand, patents, etc.); financial resources.	Cronbach's Alpha (2009) = 0.974
Competences	Logistics (<i>performance and efficiency</i>), production (<i>performance and efficiency</i>), marketing and sales (<i>effectiveness and efficiency</i>), service (<i>effectiveness and efficiency</i>), supplies (<i>performance and efficiency</i>), technology (<i>advancement and efficiency</i>), management of human resources (<i>efficiency and performance</i>), firm management systems (<i>efficiency and effectiveness</i>), quality control (<i>efficiency</i>)	
Competitive position in the crisis period and shortly after (years 2009 and 2013 respectively)		
Subjective measures	5 variables (<i>profitability, sales growth, market share, overall financial condition, customer satisfaction</i>) evaluated with the use of 7-point Likert scale, where -3 stands for " <i>much worse than direct competitors</i> ", 3 stands for " <i>much better than direct competitors</i> "	Cronbach's Alpha (2009) = 0.949 (2013) = 0.940
Objective measures	4 variables related to the financial position of a firm: <i>the profit margin (EBIT/revenues), sales growth (based on company revenues - year to year), return on equity</i>	

Source: own study.

To analyse primary data we applied the following statistical methods: two-step clustering technique, the post-hoc test descriptive statistics and non-parametric analysis of variance. Firstly, a hierarchical cluster analysis based on Ward's minimum variance technique was carried out in order to identify the most stable number of clusters for the proposed solution. To distinguish the clusters we used two variables – internationalization breadth and internationalization depth (Table 1). The Cornbach's alfa was applied to check the reliability of indicators used to measure the construct of the competitive potential and competitive position (Table 1). Secondly, a K-means cluster analysis was performed to verify the hierarchical cluster analysis. To be more confident about the number of clusters that were to be indicated for the K-Means cluster analysis we applied additional measure suggested by Mojena (1977) also known as the upper tail rule. In order to check the differences between the variables in relation to the generated clusters, the F-test was applied. Then the post hoc test – Games Howell test was conducted.

In the next step we characterised the clusters with regard to internationalization and evaluated the competitive potential and position of firms in the identified clusters using descriptive statistics. Last but not least, we checked whether there are any statistically significant differences among the clusters with regard to their competitive potential and position using the Kruskal-Wallis non-parametric analysis of variance.

Sample and Time Frame

The study is based on data from the AMADEUS database and primary data from computer assisted telephone interviews with top managers of 553 micro, small and medium firms located in Poland and operating in 7 manufacturing industries defined according to NACE Rev. 2 at the level of divisions (Table 2). The delimitation of the sectoral background of sample firms was determined by a prior analysis with the use of linear ordering of objects (Dzikowska, Gorynia & Jankowska, 2015). The latter's aim was to identify industries in which firms did relatively well during the economic crisis (division 10, 17, 25, 32) in Poland and those that had difficulties with returning to pre-crisis performance (division 14, 15, 24). Subsequently, a ranking of industries was developed. The industries included in our study encompass 44% of firms registered in Poland and operating in the manufacturing sector.

Our proprietary electronic database featured complete contact and financial records for a total of 2533 firms representing the 7 selected industries¹. Thereof, 750 firms were contacted in July and August 2015 and 701 completed questionnaires were accepted as reliable data, resulting in an effective response rate of 25%. Among those 701 companies, there are 553 micro, small and medium entities, thereafter called SMEs for the purpose of this study. The majority of SMEs represent division 10 (242 entities) and division 25 (190 entities) which are industries that coped relatively well with the crisis. The criteria used to identify the SMEs was the number of employees in 2009 indicated by respondents in questionnaires.

The timeframe of the study embraces the period 2009-2013. The year 2009 is recognised as the crisis period, while the years 2010-2013 represent the post-crisis time. The

¹ That is the number of entities in the database without records related to firms that participated in the pilot study that was conducted by the authors in 2014.

first symptoms of the global economic crisis in Poland were visible in the second half of 2008, hence the year 2009 was defined as the period of the crisis. The growth of GDP in 2009 was 1.79%, down from 5.13% in 2008. In 2010, GDP growth recovered to the level of 3.88% (World Bank, 2015).

Table 2. Sectoral structure of the sample – number of firms from particular divisions ($n = 553$)

Division	Description of activity	≤ 9 employ- ees	10-49 em- ployees	50-249 employees	Total number
Division 10	manufacture of food products	15	80	147	242
Division 25	manufacture of fabricated metal products, except machinery and equipment	19	89	82	190
Division 17	manufacture of paper and paper products	0	19	30	49
Division 24	manufacture of basic metals	4	8	10	22
Division 32	manufacture of other manufacturing	4	9	8	21
Division 14	manufacture of wearing apparel	0	14	9	23
Division 15	manufacture of leather and related products	1	4	1	6

Source: own study.

RESULTS AND DISCUSSION

Identification of the most Ambitious Internationalizers – Cluster Analysis

First, the authors used a hierarchical clustering which created a hierarchy of clusters. The applied algorithms for hierarchical clustering were agglomerative. The obtained dendrogram allowed to determine Euclidean distances between the analysed units. To determine the appropriate number of clusters the authors examined the fusion curve and it suggested that there are 3 clusters of firms differ in terms of their internationalization breadth and depth. The suggestion was supported by the upper tail rule. According to the rule, we have selected the first number of groups that satisfied the Mojena's equation which in our case amounted to 3. The three clusters embraced 492, 29 and 32 firms respectively. The accuracy of delimitation of three clusters resonates with the results of the analysis of variance presented in Table 3, statistically significant differences among the identified clusters are easily visible. The variables were normalised to assure their comparability.

The highest evaluation of IFDI is characteristic for cluster 3 (MN = 3.625). The EXPI in cluster 3 (MN = 0.303) is higher than in cluster 1 (MN = 0.133), but lower than in cluster 2 (MN = 0.446). It means that firms in cluster 3 are the most involved in FDI, being at the same time characterised by a lower export intensity. Firms in cluster 2 are practically not involved in FDI as the mean value for IFDI is 0.000, but they report strong development of their market portfolio (MN = 3.483), which means the breadth of their internationali-

zation is the largest. The same firms are the most involved in exporting (EXPI) (MN = 0.446). The lowest evaluation of the EXPI (MN = 0.133) and IFDI (MN = 0.004) variables is characteristic for cluster 1. Looking at the data in Table 4 we can conclude that the most ambitious internationalizers – firms involved the most in the highest degree of internationalization depth belong to cluster 3. However, to obtain a more detailed and meaningful view of internationalization profiles of the identified clusters, it is useful to analyse a number of indicators.

Table 3. Analysis of variance

Variables	Between Clusters	df	Within Clusters	df ²	F Test	Significance level
Export intensity (EXPI)	3.3834	2	22.9027	550	40.625	0.000
Foreign outward investment intensity (IFDI)	395.3291	2	17.4919	550	6215.201	0.000
Number of new foreign markets in the portfolio of markets (NFM)	327.5687	2	171.8237	550	524.266	0.000

Source: own study.

Table 4. Mean values for cluster variables (normalised) (n = 553)

Variables	Cluster 1	Cluster 2	Cluster 3
EXPI	0.133	0.446	0.303
IFDI	0.004	0.000	3.625
NFM	0.024	3.483	0.188
Number of firms	492	29	32

Source: own study.

The results of the analysis of variance (Table 3) show that the entities in the clusters differ in a statistically significant way with regard to the breadth and depth of internationalization, but we still don't know which of the specific clusters differ. To check it we ran the multiple comparisons, post hoc test using the Games Howell test. There are differences between the pair of clusters 1, 2 and 3 in terms of the EXPI, differences between the following pairs of clusters – cluster 1 and cluster 3; cluster 2 and cluster 3 in terms of IFDI, and last but not least differences between the following pairs of clusters: cluster 1 and cluster 2; cluster 2 and cluster 3 in terms of NFM.

Characteristics of the most Ambitious Internationalizers – Cluster Profiles

Looking at the shares of export in total value of sales, they were the highest in cluster 2 (Table 5). In each of the three identified clusters, the intensity of export grew throughout the analysed period. However, the strongest growth of that indicator was observed in the second cluster (over 6 percentage points).

Additionally, it is visible that cluster 2 is composed of firms that serve the biggest number of foreign markets which confirms that their internationalization breadth is the

² The number 550 results from subtracting the number of clusters on the number of survey units for which complete data existed or 553-3 = 550.

largest (Table 6). Simultaneously, when we compare the change in the number of foreign markets that the firms entered and the number of foreign markets the firms left in all respective years of the post-crisis period, the net result is positive and the most satisfactory in the case of cluster 2. Accordingly, these firms were the most engaged in extending the breadth of their internationalization. On the other hand, the same difference in cluster 1 is negative in 2010 and 2013, which means that de-internationalization occurred and affected the breadth of internationalization. Cluster 1 encompasses companies that indicated the lowest number of foreign markets served.

Table 5. Share of import in total purchases and share of export in total sales during the post-crisis period (n = 553)

Category		2010		2011		2012		2013	
		MN	SD	MN	SD	MN	SD	MN	SD
Share of export in total sales (%)	Cluster 1	12.92	19.83	13.35	20.36	13.40	20.26	13.52	20.58
	Cluster 2	42.28	24.40	42.28	25.89	46.28	24.46	47.52	23.65
	Cluster 3	28.75	20.15	30.50	21.88	30.72	22.46	31.25	23.37

Source: own study.

Table 6. The number of foreign markets served, left and entered by the company during the post crisis period (n = 553)

Category		2010		2011		2012		2013	
		MN	SD	MN	SD	MN	SD	MN	SD
The number of foreign markets served by the company (<i>incl. export markets</i>)	Cluster 1	2.42	5.09	2.41	5.07	2.45	5.10	2.45	5.10
	Cluster 2	7.76	5.00	8.83	4.53	9.83	5.29	10.55	5.59
	Cluster 3	4.59	4.11	4.72	4.12	4.66	4.17	4.72	4.19
The number of foreign markets the firm left (<i>incl. export markets</i>)	Cluster 1	0.02	0.16	0.04	0.27	0.02	0.15	0.03	0.17
	Cluster 2	0.03	0.18	0.17	0.91	0.03	0.18	0.03	0.18
	Cluster 3	0.00	0.00	0.00	0.00	0.09	0.29	0.00	0.00
The number of new foreign markets the firm entered (<i>incl. export markets</i>)	Cluster 1	0.02	0.15	0.03	0.19	0.05	0.29	0.02	0.14
	Cluster 2	0.69	0.88	1.28	1.11	1.03	1.71	0.76	1.07
	Cluster 3	0.06	0.24	0.13	0.33	0.03	0.17	0.06	0.35

Source: own study.

The most diversified set of foreign markets is visible for cluster 2 (Table 7). This reinforces the earlier remark about the focus of firms in cluster 2 on extending internationalization breadth rather than depth. The role of Central and Eastern Europe, Western Europe, USA and Africa did not change in the post-crisis period, on the whole. The percentage of indication for particular regions in the case of firms from cluster 3 is stable and similar for the crisis and post-crisis period, with the exception of Asia, where in 2009 its level of indication was 12.50% and in the post-crisis period it reached the level of 15.63%.

As far as FDI operations are concerned, it is visible that Cluster 3 is characterised by firms strongly involved in FDI (Table 8). In the crisis year more than 80% of firms in cluster 3 reported new FDI projects and the involvement of the companies in FDI has grown since that year. It could suggest that they exploited the crisis to increase the depth of their internationalization. Bearing in mind that their portfolio of markets was not that much developed as in the case of cluster 2, we can suppose that they trade off breadth

for depth by switching from mere exporting to FDI, rather than diversifying their geographic portfolios. The highest mean values for IFDI (Table 4) is in a way confirmed by the fact that more than 96% of those businesses reported undertaking new FDI projects and just around 3% indicated dismantling their foreign investments. Thus, they can be referred to as ambitious investors.

Table 7. Percentage of firms doing business in particular locations in the post crisis period (n = 553)

Region	Cluster	2010	2011	2012	2013
Central and Eastern Europe	Cluster 1	32.59	32.79	32.65	32.38
	Cluster 2	93.10	93.10	93.10	93.10
	Cluster 3	93.75	93.75	93.75	93.75
Western Europe	Cluster 1	25.66	25.66	25.92	26.07
	Cluster 2	82.76	82.76	86.21	86.21
	Cluster 3	46.88	46.88	46.88	46.88
USA	Cluster 1	2.65	2.65	2.86	2.65
	Cluster 2	24.14	20.69	27.59	34.48
	Cluster 3	6.25	6.25	6.25	6.25
Asia	Cluster 1	5.30	5.50	5.51	5.50
	Cluster 2	37.93	51.72	51.72	51.72
	Cluster 3	15.63	15.63	15.63	15.63
Africa	Cluster 1	2.65	2.65	2.65	2.65
	Cluster 2	3.45	3.45	3.45	6.90
	Cluster 3	9.38	9.38	9.38	9.38

Source: own study.

Cluster 2 embraces firms that are involved the most significantly in exporting since the EXPI indicator reached the highest value. No firm from that cluster reported any new FDI projects in the crisis year 2009 and in the post-crisis period of 2010-2013 (Table 8). There are no firms involved in withdrawing from FDI activities. However, they expanded abroad by entering new foreign markets (Table 5). The mean values for the number of new foreign markets is the highest in the case of cluster 2 and the set of foreign markets served by the firms from cluster 2 is diversified the most (Table 6). Hence, they can be called ambitious exporters.

Table 8. Undertaking or abandonment of FDI in the post-crisis period – percentages of indications (n = 553)

Category		2010	2011	2012	2013
Undertaking of new FDI	Cluster 1	0.41	0.00	0.20	0.41
	Cluster 2	0.00	0.00	0.00	0.00
	Cluster 3	93.75	96.88	96.88	96.88
Abandonment of FDI	Cluster 1	0.00	0.20	0.00	0.41
	Cluster 2	0.00	0.00	0.00	0.00
	Cluster 3	9.38	6.25	3.13	3.13

Source: own study.

Cluster 1 are firms undertaking export and trying to win new foreign markets, but their intensity of export is still the lowest within the whole sample of firms. Accordingly, we call them cautious internationalizers. It should be noted at this juncture that they constitute the majority of our total sample.

Competitive Potential of Ambitious Investors, Ambitious Exporters and Cautious Internationalizers in the Crisis

A closer look at the elements of the competitive potential of firms within particular clusters allows us to state that the highest values were reported among ambitious investors (cluster 3, Table 9). Firms the most involved in FDI possessed the best competitive potential in the crisis year 2009. In the case of ambitious exporters and cautious internationalizers, a higher assessment for a larger number of aspects is visible for the cluster of cautious internationalizers. This provides additional rationale for the term cautious. In fact, they were better equipped than the ambitious exporters during the crisis, but still expanded very carefully (Tables 4, 5 and 6).

In order to verify whether the differences in the competitive potential of firms representing particular clusters are statistically significant, we used the Kruskal-Wallis test. The results presented in Table 9 include critical values and significance levels in relation to the elements of competitive potential where clear differences were observed in the distribution of the answers related to the evaluation of its particular elements. A comparison between the H-values and the critical value in the statistical table of the chi-square distribution for $k-1 = 3-1 = 2$ degrees of freedom and $p = 0.05$, which equals 5.991, showed that the calculated values of the H statistics were above the critical range ($H > 5.991$). Therefore, the differences in the competitive potential of ambitious investors, ambitious exporters, and cautious internationalizers are statistically significant.

Table 9. Competitive potential of firms in 2009 – during the crisis (n = 553)

Aspects of competitive potential	Cluster	MN	SD	Kruskal-Wallis test	Level of significance
Material resources (<i>available machines, assets and infrastructure</i>)	Cluster 1	0.41	0.87	H = 29.97	p = .0000
	Cluster 2	0.41	0.93		
	Cluster 3	1.47	1.09		
Human resources	Cluster 1	0.46	0.79	H = 30.81	p = .0000
	Cluster 2	0.48	0.72		
	Cluster 3	1.47	1.09		
Intangible resources (<i>knowledge, brand, patents, etc.</i>)	Cluster 1	0.45	0.86	H = 33.87	p = .0000
	Cluster 2	0.52	0.93		
	Cluster 3	1.50	1.00		
Financial Resources	Cluster 1	0.39	0.93	H = 30.85	p = .0000
	Cluster 2	0.10	0.92		
	Cluster 3	1.47	1.09		
Logistics (<i>efficiency and effectiveness</i>)	Cluster 1	0.48	0.77	H = 28.52	p = .0000
	Cluster 2	0.31	0.53		
	Cluster 3	1.31	0.92		
Production (<i>efficiency and effectiveness</i>)	Cluster 1	0.73	0.99	H = 14.35	p = .0008
	Cluster 2	0.34	0.88		
	Cluster 3	1.38	1.29		
Marketing and sales (<i>effectiveness and efficiency</i>)	Cluster 1	0.35	1.28	H = 11.47	p = .0032
	Cluster 2	0.17	1.12		
	Cluster 3	1.25	1.62		
Service (<i>efficiency and effectiveness</i>)	Cluster 1	0.17	1.13	H = 13.13	p = .0014
	Cluster 2	0.07	0.98		
	Cluster 3	1.19	1.65		
Supply (<i>efficiency and effectiveness</i>)	Cluster 1	0.73	0.97	H = 17.43	p = .0002
	Cluster 2	0.28	0.69		
	Cluster 3	1.38	1.29		
Technology (<i>advancement and performance</i>)	Cluster 1	0.42	0.89	H = 29.52	p = .0000
	Cluster 2	0.34	0.71		
	Cluster 3	1.47	1.09		
HR management (<i>efficiency and effectiveness</i>)	Cluster 1	0.48	0.80	H = 29.15	p = .0000
	Cluster 2	0.52	0.81		
	Cluster 3	1.47	1.09		
Company management systems (<i>efficiency and effectiveness</i>)	Cluster 1	0.35	1.27	H = 11.08	p = .0039
	Cluster 2	0.24	1.13		
	Cluster 3	1.25	1.62		
Quality control (<i>efficiency</i>)	Cluster 1	0.15	1.12	H = 10.40	p = .0055
	Cluster 2	0.31	0.99		
	Cluster 3	1.03	1.65		

Source: own study.

The Competitive Position of Ambitious Investors, Ambitious Exporters and Cautious Internationalizers – Contrasting the Crisis and Post-crisis Period

The changes in the intensity of internationalization, which can be considered as one of the reactions to crisis, can have an impact on the competitive position of firms. Interestingly, the mean values for subjective indicators of performance (Table 10) are generally the lowest for the ambitious exporters (cluster 2) in the crisis period (year 2009), with the exception of client satisfaction. It could mean that firms tried to keep their clients even at the expense of their profitability (MN = -0.07). Being exporters very much focused on EU markets (Table 7), whose situation at that time was difficult, and coping with the consequences of the depreciation of the Polish currency (PLN), which are negative in case of firms using imported goods in production (Table 5), they clearly perceived their position as the worst within the whole sample. However, the evaluation of competitive position for 2013 compared with the results from 2009 reveals that ambitious exporters improved their performance to the highest extent during the post-crisis period (Table 10).

Table 10. Competitive position according to subjective indicators contrasting the crisis and post-crisis period (n = 553)

Dimensions of competitive position	Cluster	2009		2013		Change 2013-2009	Kruskal-Wallis test	Level of significance
		MN	SD	MN	SD			
Profitability	Cluster 1	0.32	1.40	0.63	1.39	0.31	H = 14.07	p = .0009
	Cluster 2	-0.07	1.39	0.72	1.23	0.79		
	Cluster 3	1.25	1.50	1.59	1.30	0.34		
Sales growth	Cluster 1	0.43	1.43	0.65	1.38	0.22	H = 13.65	p = .0011
	Cluster 2	0.10	1.40	0.72	1.23	0.62		
	Cluster 3	1.25	1.62	1.59	1.30	0.34		
Market share	Cluster 1	0.33	1.38	0.63	1.40	0,30	H = 13.65	p = .0011
	Cluster 2	0.10	1.42	0.72	1.23	0.62		
	Cluster 3	1.31	1.51	1.59	1.30	0.28		
Overall financial condition	Cluster 1	0.46	1.45	0.61	1.44	0.15	H = 9.65	p = .0080
	Cluster 2	0.10	1.32	0.66	1.18	0.55		
	Cluster 3	1.13	1.65	1.44	1.48	0.31		
Client satisfaction	Cluster 1	0.75	0.77	0.76	0.76	0.02	H = 24.29	p = .0000
	Cluster 2	0.79	0.71	0.86	0.68	0.07		
	Cluster 3	1.63	0.99	1.63	0.99	0.00		

Source: own study.

To check if the differences in the competitive position of firms from particular clusters measured with subjective indicators are statistically significant, we used the Kruskal-Wallis test. The results, also presented in Table 10, include the critical values and significance levels in relation to the indicators of competitive position, where clear differences were observed in the distribution of the answers related to the evaluation of its particular dimensions. A comparison between the H values and the critical value in the statistical table of the chi-square distribution for $k-1 = 3-1 = 2$ degrees of freedom and $p = 0.05$,

which equals 5.991, demonstrates that the calculated values of the H-statistics are above the critical range ($H > 5.991$). Thus, the differences in the competitive position of firms measured with subjective indicators representing our identified clusters are statistically significant.

The evaluation of objective measures of competitive position for particular clusters are presented in Table 11. The measures are based on the financial results reported by the firms and available in the AMADEUS database. In the crisis period, the sales growth was the highest in the case of cautious internationalizers, and the worst in the case of ambitious exporters. To calculate the sales growth in 2009, we used data from 2009 and 2008. As 2008 was marked by recession particularly in Western Europe, which constitutes the main export area of the firms representing the ambitious exporters, this finding is not surprising. Cautious internationalizers depended much less on foreign markets, thus they were able to achieve relatively higher sales growth. The highest profit margin can be observed for ambitious investors in the crisis year 2009 in Poland. Ambitious exporters scored the best result in terms of return on equity in 2009. It was the group of firms that managed to improve its sale growth and profit margin the most – when we compare the results from 2013 and 2009. However, these findings for objective indicators are not statistically significant at $p = 0.05$.

Table 11. Competitive position according to objective indicators contrasting the crisis and post-crisis period

Dimensions of competitive position	Cluster	2009		2013		Change 2013 vs 2009	Kruskal-Wallis test	Level of significance
		MN	SD	MN	SD			
Sales growth	Cluster 1	0.96	10.43	0.02	0.48	-0.93	H = 4.84	p = .0888
	Cluster 2	0.00	0.24	0.09	0.19	0.09		
	Cluster 3	0.06	0.28	0.00	0.26	-0.06		
Profit margin	Cluster 1	0.03	0.96	-0.05	1.59	-0.08	H = 4.42	p = .1095
	Cluster 2	0.03	0.08	0.05	0.07	0,02		
	Cluster 3	0.06	0.07	-0.07	0.70	-0.13		
Return on equity	Cluster 1	0.15	1.19	-0.21	9.35	-0.37	H = 1.51	p = .4698
	Cluster 2	0.31	0.71	0.18	0.19	-0.13		
	Cluster 3	0.15	0.31	0.18	0.22	0.03		

Source: own calculations based on data from the AMADEUS database.

CONCLUSIONS

Our study corroborates the findings or earlier research on the internationalization of Polish firms that they are still at an early stage of evolution of their international operations (Burlita *et al.*, 2011; Gorynia, Nowak, Trąpczyński & Wolniak, 2015b). In fact, we identified three groups of firms characterised by different profiles of their international strategy, as expressed by the breadth and depth of internationalization. Clearly, firms belonging to cluster 1 (cautious internationalizers) are still limited both in terms of the breadth and depth of their internationalization. They constitute the vast majority of our sample, which is indicative of overall trends in the actual population of Polish SMEs doing business abroad. Conversely, firms involved in broader and deeper internationalization,

i.e. ambitious exporters and ambitious investors, respectively, are far less numerous, pointing to the still limited scale of this phenomenon.

In addition to this more descriptive contribution, our findings bear several normative implications related to reactions to crisis and their consequences. In fact, the identified firm clusters differ significantly in terms of changes in depth and breadth of their internationalization, as well as the initial competitive potential and the changes in their competitive position during the crisis. Our cluster analysis provides support for the hypothesis that better competitive potential of SMEs at the outset of the economic crisis is characteristic for firms that increase rather their internationalization depth than breadth through the post-crisis period (Hypothesis 1). In fact, we find that firms which are the most dynamically engaging in FDI activities during the period of crisis and thereafter, are the ones best equipped with different resources and capabilities, which resonates with existing theoretical concepts of FDI. Second, we argued earlier in the paper that bigger improvement of competitive position of SMEs shortly after the economic crisis is more positive for firms that increase rather their internationalization breadth than depth (Hypothesis 2). Our empirical evidence provides support for this assertion. In fact, it is the ambitious exporters, focusing more on internationalization breadth than depth, that managed to enhance their financial and non-financial performance most visibly, although in absolute terms their performance was on average the lowest among our sample firms. In particular, given the fact the crisis affected the key export markets of Polish firms, it seems legitimate to argue based on the present findings that the strategy of diversifying international markets during the economic crisis and recovery can be a mean of improving performance and reducing excessive dependence on fluctuations in key markets. Overall, the findings contribute to the discussion whether reactive or proactive steps are more effective in sustaining the crisis period. Contrary to some prior studies pointing to a lesser perceived role of expansion as a means of withstanding the crisis (Lachowska, 2011; Orłowski *et al.*, 2010; Zelek & Maniak, 2011), our study provides some arguments to the debate about the effectiveness of proactive measures in crisis times.

Interestingly, we find that decisions related to enhancing or limiting a firm's internationalization breadth and depth are not necessarily linked to their resources and capabilities, or their performance outcomes, as the cautious internationalizers turned out to excel in certain specific dimensions. This reinforces the notion that internationalization decisions are complex in nature and highly affected by managerial values (Wrona & Trąpczyński, 2012). Thus policy support should be particularly oriented towards supplying information about foreign markets and fostering firms in an optimal allocation of their resources (Gorynia, Nowak, Trąpczyński & Wolniak, 2015a).

The study is burdened with several limitations. The reliance on predominantly interview-based measures may provide a biased account on the evaluations of resources and performance. Applying the cluster analysis the authors are aware of its limitations. Bearing in mind the strengths and weaknesses of this method of exploration of data, the authors purposefully combined the hierarchical and non-hierarchical cluster analysis. Moreover, while our cluster analysis allowed identifying the internationalization profiles of SMEs as a reaction to crisis, how it was affected by the possession of capabilities, and how it affected firm performance, the choice of our research methods only provides an initial exploratory look at the data. We are aware that our study does not provide a full

understanding of causality in the studied relationships. Further studies should recur to econometric modelling to investigate moderating effects of internationalization depth and breadth on the relationships between firm resources and strategy on performance, in order to seize the effect of internationalization in a more direct manner. To profile the clusters we used the Kruskal-Wallis test which provides a correct in terms of methodology, but rather not a very detailed and in-depth picture of the phenomenon. To obtain more valuable results the authors plan to apply more advanced methods in the future, such as discriminant analysis or decision trees. Furthermore, the nature of the sources of competitive advantage of firms should be explored in more detail in different geographic contexts, as it is the contexts in which the resources are deployed that their value can be assessed. Accordingly, a more nuanced analysis with consideration of the geographic patterns of expansion should be undertaken by future studies.

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Foreign Market Knowledge and SME's International Performance: Moderating Effects of Strategic Intent and Time-to-Internationalization

Mariola Ciszewska-Mlinarič

ABSTRACT

Objective: The objective of the article are threefold. First, to examine the significance of knowledge based resources for internationalization of small and medium sized enterprises. Second, to verify the strategic intent as a factor enhancing SMEs' ability to accumulate the knowledge about foreign markets. Third, to examine whether and how strategic intent and time-to-internationalization moderate the relationship between foreign market knowledge and SMEs' international performance.

Research Design & Methods: The study was conducted on a sample of 89 Polish firms operating in a low-tech but fairly internationalized sector. In line with a theoretical background, hypotheses are developed and tested with linear regression models.

Findings: The findings reveal that foreign market knowledge (FMK) is positively associated with international performance (IP), and both, strategic intent and firm's age at internationalization are moderators of FMK-IP relationship.

Implications & Recommendations: Firms' ability to clearly formulate the strategic intent brings important consequences for ability to accumulate knowledge. Strategic intent enhances the development of the stock of foreign market knowledge, which in turn enables firms to achieve better performance in international markets.

Contribution & Value Added: The article seeks to contribute to the ongoing discussion on factors supporting the accumulation of foreign market knowledge by focusing on the role of strategic intent and time to internationalization in this respect.

Article type: research paper

Keywords: foreign market knowledge; strategic intent; age at internationalization; international performance; SMEs

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INTRODUCTION

Foreign market knowledge (FMK) is one of central concepts within international business strategy research. Its importance has been recognized in the incremental model of internationalization, i.e. the Uppsala Model (Johanson & Vahlne, 1977) that explains the process of international expansion in terms of experiential learning and accumulation of foreign market knowledge. Researchers have also validated the significance of foreign market knowledge for the firm performance in international markets (Eriksson, Johanson, Majkgard & Sharma, 2000; Mogos Descotes & Walliser, 2013; Musteen, Datta & Butts, 2014), triggering the studies examining learning processes of internationally oriented firms, sources of foreign market knowledge, or antecedents/factors enhancing accumulation of foreign market knowledge (Musteen *et al.*, 2014; Fink & Kraus, 2007). Knowledge about foreign markets is particularly important for small firms (Liesch & Knight, 1999) that originate from transition economies (Musteen & Datta, 2011), as they often lack resources and capabilities.

While prior studies have cumulatively formed the sound body of knowledge, much of them focus on samples originating from developed economies. Given that emerging market firms, both large and small, are increasingly active in the international marketplace, undertaking research in this context is well-justified to fill in this gap. Foreign market knowledge can be particularly important for firms originating from such economies, as liberalization of trade and foreign direct investments have opened their home markets to foreign competitors, which in turn forced firms to search for international growth opportunities (Luo & Tung, 2007). Thus, this paper enriches extant research on foreign market knowledge within the context of Central East European region, by providing evidence from Polish SMEs.

Another gap in the extant literature refers to factors enhancing the accumulation of foreign market knowledge. Factors other than firm's international experience, network ties, technological orientation or firm size have been seldom examined. In this respect, the concept of strategic intent (Hamel & Prahalad, 1989; 1993; 1994) seems to be largely sidelined. The current study investigates the significance of strategic intent for developing the stock of knowledge about foreign markets, while controlling for other, above mentioned variables. It is proposed that the strategic intent perspective should be included in research examining organizational learning and the accumulation of foreign market knowledge. I argue that strong strategic intent, by providing direction of organizational efforts oriented on learning, leads to the accumulation of knowledge about foreign markets, which in turn increases the likelihood of achieving greater international performance by small and medium sized enterprises. Additionally, the study examines how the relationship between foreign market knowledge and international performance is moderated by the firm age at internationalization.

Therefore, the objectives of the paper are threefold. First, to examine the significance of knowledge based resources for SMEs' internationalization. Second, to verify the role of strategic intent as a factor enhancing SMEs' ability to accumulate the knowledge about foreign markets. Third, to identify conditions affecting the relationship between knowledge of foreign markets and performance (including as moderators strategic intent and age at internationalization). In order to test the hypothesised relationships, the

study employs a sample of 89 Polish firms that operate in the furniture manufacturing sector.

The present study contributes to extant understanding of foreign market knowledge in the successful internationalization of small and medium sized firms in three ways. The first is by proposing a novel factor, i.e. strategic intent that explains the accumulation of foreign market knowledge, leading in that way to greater international performance. The second is by verifying the significance of strategic intent and a firm's age at internationalization for the relationship between foreign market knowledge and international performance, thus bringing empirical support for the conditions explaining the relationship.

The article is structured as follows. In the first section, theoretical background is discussed and research hypotheses are developed. The second section presents details on the sample, data selection procedure, and operationalization of variables. Then, results of statistical analyses and key findings are provided. The paper closes with conclusions and future research recommendations.

LITERATURE REVIEW

Foreign Market Knowledge and International Performance

In line with prior research (Johanson & Vahlne, 1977; Musteen & Datta, 2011), foreign market knowledge (FMK) is defined as "the knowledge of business practices and potential opportunities as they relate to foreign markets. It includes knowledge related to local culture, competitive conditions, customer needs, and the broader institutional environment" (Musteen & Datta, 2011, p. 93). Internationalization literature postulates that knowledge about foreign markets is an essential concept that explains internationalization behaviour/commitment of firms. According to Uppsala model such knowledge has experiential character and is growing along with a firm's international experience.

FMK is seen as one of the most important resources in the internationalization process (Johanson & Vahlne, 2003; Autio, Sapienza & Almeida, 2000), as it is necessary to understand opportunities and deal with uncertainties (Andersen, 1993) and risks (Liesch, Welch & Buckley, 2011). The lack of FMK represents a significant barrier to firm's internationalization (Eriksson *et al.*, 1997). Numerous studies confirm this thesis, providing evidence that lack of FMK deteriorates directly or indirectly performance in the foreign markets, both in the context of developed market firms (Mogos Descotes & Walliser, 2013), and emerging market firms (Musteen & Datta, 2011; Musteen *et al.*, 2014; Elango & Pattnaik, 2007). For instance, Musteen and Datta (2011, p. 96) argue that "superior understanding of the foreign competitive and political environments should mitigate the liability of foreignness, enabling entrant firms overcome the barriers set up by incumbent firms and governments and allow them to compete more effectively in international markets". However the incremental character of internationalization, and the assumption that knowledge is acquired via first-hand experience have been questioned by numerous researchers, pointing to the abundance of born-global (BG) firms (Zhou, 2007) and other than experiential modes of learning (Forsgren, 2002). Searching for explanations of the phenomenon of early internationalization, where firms have no or very limited knowledge about foreign markets, scholars have pointed either to learning advantages of newness or/and others sources of learning and knowledge accumulation,

that can be used by BGs, in general agreeing with the value of foreign market knowledge for the performance. Thus, in line with traditional theorizing it is hypothesized that:

- H1:** Foreign market knowledge is positively related to a firm's international performance.

Strategic Intent and Foreign Market Knowledge

Antecedents or predictors of knowledge about foreign markets constitute another popular research theme. Among most often employed predictors are prior international experience, network ties, size, and technological orientation (Fink & Kraus, 2007; Ellis, 2011; Musteen *et al.*, 2014). While controlling for the typically employed predictors of FMK, this paper builds on strategic intent perspective (Hamel & Prahalad, 1989; 1993; 1994) to shed novel light on organizational learning and the resulting stock of foreign market knowledge.

The term strategic intent was developed and popularized by Hamel and Prahalad (1989). Analysing the post-war growth of Japanese firms they argued that these firms have used a different approach to strategy formation than their Western peers. Hamel and Prahalad (1993) posit that long term competitiveness of global companies is determined by managers' willingness to challenge continually the assumptions, premises, and accepted wisdom ('managerial frames', 'mindset') that relate to how companies compete. According to the authors, competition takes place not so much at the level of products, but at the level of managerial mindsets. They contend that "creating stretch, a misfit between resources and aspirations, is the single most important task senior management faces" (Hamel & Prahalad, 1993, p. 78). It demands more creativity in finding or creating new market space, identifying unmet needs of customers, avoiding competitive confrontation (focus is rather on encirclement or making competition irrelevant) – in short, finding ways to achieve more, while possessing less or "getting the most from the least" (Hamel & Prahalad, 1993, p. 78). They argued that clearly defined and communicated strategic intent (which gives the sense of direction, destiny, and discovery) is critical for firms' success, as it creates the misfit between goals and resources and opens the way to leveraging resources.

However, in the field of international business and international entrepreneurship, the concept of strategic intent is rather forgotten. Some exceptions in this respect, include the arguments on strategic intentionality of Johanson and Vahlne (2009) who point to the importance of strategic intentions, that may determine the focus of managerial attention, how managers interpret information, and what decisions and actions they may undertake. Such arguments lead to the use of strategic intent (measured as export intention) as a moderator of the relationship between learning and export intensity (Casillas, Barbero & Sapienza, 2015), or – more broadly – the concept of strategic thinking for the pace of internationalization (Wach, 2015).

This study puts forward the notion that clearly defined and shared strategic intent can be invaluable to create proper organizational conditions for accumulating foreign market knowledge. One reason for that is strategic intent helps organizations to focus their efforts to gain new knowledge, helps to identify opportunities, including opportunities to learn. Thus:

- H2:** Strategic intent is positively associated with the accumulation of foreign market knowledge.

Strategic Intent and Age at Internationalization as Moderators

In the field of international business, Johanson and Vahlne (2009) suggest that intentions determine the focus of managerial attention, efforts, the way of interpreting information, as well as decisions and resulting actions. Following this reasoning, I argue that firms that have clearly formulated strategic intent will increase their ability to learn “by actively seeking knowledge about international markets, potential customers, competitors” (Zhou, 2007, p. 284). In other words, the ability to learn about foreign markets and accumulate knowledge increases when owners and managers provide and effectively communicate the strategic intent (the sense of direction, destiny, and discovery); so that organizational efforts are focused on spotting and exploiting new opportunities, an important source of knowledge. Therefore, it is expected that the relationship between FMK and performance will be stronger in case of firms with clearly formulated strategic intent than in case of firms with ambiguous strategic intent. Therefore:

- H3a:** The relationship between foreign market knowledge and international performance is moderated by the strategic intent, so that in case of firms with clearly formulated strategic intent, the positive relationship between FMK and performance will be stronger.

Age at internationalization (in other words, time-to-internationalization) is another moderator of the relationship between FMK and performance, which is employed in this study. Age at internationalization refers to the phenomenon of early internationalization, which questions the logic of gradual internationalization process (Johanson & Vahlne, 1977). One of arguments explaining the phenomenon of early internationalization refers to the learning advantages of newness (LAN). According to Zhou and Wu (2014, p. 134), learning advantages of newness characterizes new ventures that “tend to possess fewer deeply embedded routines (from domestic operations), face fewer inertial constraints (past-dependent cognitive biases), and thus are in a forward-looking position to explore new opportunities in international markets.” However, young and small firms also suffer from the lack of managerial, human and financial resources, and they may not have enough time and experience to develop organizational routines supporting learning. When they try to develop their business simultaneously in domestic and foreign markets, such resource shortages may become even more evident. In the context of SMEs originating from post-transition economies. Cieřlik and Kaciak (2009, p. 381) observe that “The shift from a communist to a market economy opens new opportunities for firms to expand internationally but also poses serious risks because of these firms’ lack of international experience and relevant skills.” Therefore, in contrast to the ‘learning advantages of newness’ argument, this article postulates that absorptive capacity (i.e. the ability to recognize the importance of new knowledge, absorb and use) (Cohen & Levinthal, 1990) of small firms originating from post-transition economies increase with time so that in case of firms that are older at the time of internationalization, the relationship between FMK and performance will be stronger.

- H3b:** The relationship between foreign market knowledge and international performance is moderated by the firm age at internationalization, so that in case of firms that were older at the time of internationalization will benefit more from accumulation of foreign market knowledge.

Figure 1 presents all hypothesized relationships.



Figure 1. Conceptual model

Source: own elaboration.

MATERIAL AND METHODS

Sample and Data Collection

The sample was drawn from the population of Polish firms operating in the furniture manufacturing sector, which were actively involved in international operations in 2013. Furniture manufacturing is among the most competitive manufacturing sectors in Poland – it generates app. 2% of Polish GDP, and has a significant surplus in foreign trade (Polish Furniture Magazine, 2012). The sector is important to Poland's exports (accounting for approximately 5-6% of Polish exports, which is one of the highest shares in exports). Approximately 90% of furniture produced in Poland is exported (Polish Furniture Magazine, 2012). Moreover, Poland is among largest worldwide exporters of furniture (in 2011 following China, Germany, and Italy), which makes furniture manufacturing one of globally visible manufacturing sectors in Poland. Polish exports of furniture is constantly growing over the last decades, and according to Eurostat data the value of Polish furniture exports in 2014 equalled to 8.037 billion EUR, which grew in comparison to 2013 by 13.2% (in 2013 the value of Polish furniture exports was equal to 7.1 billion EUR) (OIGPM, 2015). Thus, the sector was chosen due to its importance to the Polish economy and its global visibility.

The findings presented in this paper are based on a larger project that examined internationalization strategies of Polish firms operating in the furniture manufacturing sector. A total of 1100 firms with international sales were identified (with the cooperation of Eniro Polska, which owns the largest and, supposedly, the most up-to-date database of Polish firms) and contacted by telephone in February/March 2014. The interviewer asked for permission to conduct a telephone interview with managers, owners or chief executive officers directly responsible for key decisions concerning the firm's internationalization. Regarding internationalization issues in the context of SMEs, they are the most knowledgeable informants (Nummela, Saarenketo & Puumalainen, 2004). After rejecting non-existing firms and firms with 100% foreign ownership, and after receiving permission to conduct a telephone interview, the final sample consisted of 121 firms of different size. For the purpose of this study the large firms, and surveys that were in-

complete, were dropped from the sample. Thus, the final sample comprises 89 micro, small and medium sized firms that each employed between 1-250 employees.

The questionnaire was pretested on several firms in order to provide reliability of the results. Then, interviewers from the research agency were trained in the questions. The questionnaire was targeted to chief executive officers (CEOs), owners, and managers directly responsible for making key internationalization decisions because they are the most knowledgeable informants regarding internationalization issues in SMEs (Nummela *et al.*, 2004). As the survey was conducted over a phone with a single informant, and predictor and criterion measures were obtained from the same source, common method variance (CMV) may be a concern (Podsakoff, MacKenzie, Lee & Podsakoff, 2003; Chang, Witteloostuijn & Eden, 2010). To ensure the reliability of the study, several procedural remedies were used ex-ante (e.g., the questionnaire was pretested to eliminate any ambiguity, vagueness, or unfamiliarity), response anonymity and confidentiality were guaranteed, and single-common-method-factor approach was taken ex-post to detect CMV. Harman's single-factor test revealed that CMV should not be a problem in the present study as loading all items into exploratory factor analysis revealed neither the single factor nor the general factor¹ that would account for a majority of covariance between the measures (Podsakoff *et al.*, 2003).

Dependent Variables

Foreign market knowledge. The items applies as measures of foreign market knowledge covered: foreign regulations and law, foreign competitors, foreign customers, foreign distribution channels, and foreign business opportunities. This approach is in line with prior research (Musteen *et al.*, 2014) and covers the dimensions of foreign institutional and business knowledge (Eriksson *et al.*, 1997; Autio *et al.*, 2000; Hadley & Wilson, 2003). Specifically, the respondents were asked to evaluate the top managers' knowledge using 5-point scale (1=very low level of knowledge; 5=very high level of knowledge) concerning a firm's major overseas markets, in terms of: (i) the foreign law and industry regulations; (ii) the policies and actions of foreign competitors; (iii) the expectations of foreign customers; (iv) the effectiveness of foreign distribution channels; (v) business opportunities in foreign markets such as opportunities for partnering, and/or for potential new customers. The factor analysis indicated that the items' loadings were between 0.746 and 0.846. The construct has a satisfactory Cronbach's alpha of 0.852 (Nunnally & Berstein, 1994), as well as the composite/construct reliability (CR=0.895), and average variance extracted (AVE=0.632) (Fornell & Larcker, 1981).

International performance. Musteen and Datta (2011, p. 98) argue that "firms in transition economies are generally very reluctant to provide earnings information. Indeed,[...] requests for earnings data is viewed very suspiciously by SME managers". Therefore, perceptual/subjective measures are often used in performance operationalization (Zahra, Neubaum & Huse, 1997; Nummela *et al.*, 2004; Musteen & Datta, 2011; Musteen *et al.*, 2014). Although such measurement may be vulnerable to personal bias, there is a research evidence confirming that subjective and objective measures are high-

¹ The unrotated principal component factor analysis revealed the presence of four distinct factors with eigenvalue greater than 1.0 (thus no single factor emerged). The four factors together accounted for 59.8% of the total variance; and the first factor did not account for a majority of the variance (23.10%).

ly correlated (Dollinger & Golden, 1992; Wall *et al.*, 2004), and thus can be used when objective measures are not available (Musteen *et al.*, 2014). In this study, international performance was measured on a 5-point scale by two items. First respondents were asked to indicate their satisfaction with the firm's international performance (1 = very dissatisfied, 5 = very satisfied), and second, to evaluate the firm's success in foreign markets in comparison to its main competitors (1 = much worse, 5 = much better than main competitors). The construct has a rather unsatisfactory Cronbach's alpha of 0.579 (Nunnally & Berstein, 1994), but the composite/construct reliability (CR = 0.826), and average variance extracted (AVE = 0.704) met the recommended thresholds (CR > 0.6 and AVE > 0.5), which supports the construct internal consistency (Fornell & Larcker, 1981).

Independent Variables

Strategic intent. The construct of strategic intent was operationalized in the past different ways. For instance, Casillas *et al.* (2015) operationalized strategic intent as an export intention, while Mariadoss, Johnson and Martin (2014, p. 2396) as overall strategic aggressiveness, a multi-item measure focused on aggression, ambition, winning, and market leadership. This paper, however, builds on the original work of Hamel and Prahalad (1989; 1994). The construct was thus operationalized using three items: a sense of direction, destiny, and discovery. Respondents were asked to indicate the extent to which they agreed with each of the following statements (5-point scale, 1 = strongly disagree, 5 = strongly agree): (i) the overall aim of our company clearly indicates the direction in which we are going, (ii) the overall aim of our company is well known to and shared by employees, (iii) in comparison with our main competitors, the overall aim of our company is far more ambitious. The factor analysis revealed that the items' loadings were between 0.680 and 0.814. The construct has a satisfactory Cronbach's alpha of 0.613 (Nunnally & Berstein, 1994), as well as the composite/construct reliability (CR = 0.797), and average variance extracted (AVE = 0.569) (Fornell & Larcker, 1981).

Time to internationalization. In line with prior operationalization (Cieřlik & Kaciak, 2009; Musteen *et al.*, 2014; Wach, 2015), time to internationalization, (or firm age at internationalization) was measured by the number of years that passed from the firm's founding until the first foreign market sales.

Control Variables

The study employs several control variables based on prior research. First, firm international experience was captured by the number of years a firm has carried out sales in foreign markets. In line with a conventional theorizing it is argued that a longer time may lead to foreign market knowledge accumulation (Musteen & Datta, 2011) and enhance international performance. The second control variable refers to network ties. As evidenced by prior research, ties with foreign partners may foster both, development of foreign market knowledge and firm international performance (Fink & Kraus, 2007). The significance of foreign customers (suppliers) in a firm network was computed as ratio of foreign customers (suppliers) in a total number of a firm's customers (suppliers), including both foreign and domestic customers (suppliers). Third, ownership was treated as a dichotomous variable indicating whether the firm is domestic (coded as '0'), or has a minority or majority share of foreign capital (coded as '1'). Firms with 100% foreign ownership were not included in the study. As argued by Zahra, Ireland and Hitt (2000),

ownership may exert influence on a firm international operations and resources that are available for them. According to prior research, firms with foreign ownership (full or partial) are more internationalized, and have a higher level of sales and exports per employee than firms with only domestic/Polish capital (Cieřlik, 2010; Kolasa, Rubaszek & Taglioni, 2010). Additionally, firm size was controlled with the log of total number of employees.

Correlations for all variables are shown in Table 1. In order to detect potential issues with multicollinearity, the variance inflation factors (VIF) were calculated for all the variables in key models (Table 1). The VIFs for all the variables in both models were below 1.61, which is substantially lower than the recommended cut-off, indicating that multicollinearity should not be a problem (Neter, Kutner, Nachtsheim & Wasserman, 1996). An assessment of the normality of the random component was performed with Shapiro-Wilk and Kolmogorov-Smirnov's tests (probabilities > 0.05).

Table 1. Correlations of the key variables (n = 89)

Variables	1	2	3	4	5	6	7	8	VIF ^a	VIF ^b
1. International performance	1									
2. Foreign market knowledge	0.58**	1								1.607
3. Strategic intent	0.41**	0.60**	1						1.073	1.417
4. Age at internationalization	0.01	0.02	0.01	1					1.063	1.064
5. Firm size	0.32**	0.37**	0.15	0.07	1				1.174	1.301
6. Firm international experience	0.13	0.15	0.12	0.12	0.24*	1			1.208	1.209
7. Ownership	0.39**	0.17	0.13	-0.20	0.16	-0.12	1		1.162	1.164
8. Foreign partners (suppliers)	0.04	-0.00	-0.04	-0.02	0.06	0.04	0.03	1	1.071	1.076
9. Foreign partners (customers)	0.38**	0.19	0.10	-0.16	0.09	0.11	0.23*	0.25*	1.166	1.204

Note: Correlation is significant: ** at the 0.01 level (2-tailed); * at the 0.05 level (2-tailed).

^a Refers to Model 1 in Table 2; ^b refers to Model 2 in Table 2.

Source: own study.

RESULTS AND FINDINGS

Research hypotheses were tested with the hierarchical linear regression models. In order to examine the significance of strategic intent for the accumulation of foreign market knowledge we run two regressions (Table 2).

The baseline model (Model 0) includes only control variables, and the full model (Model 1) includes the independent variable. A comparison of baseline and full model indicates whether the explanatory power increased. The regression results show that both models are significant, and the full model (Model 1) has significantly greater explanatory power (change in R-squared = 0.199, F-change = 19.850, $p < 0.001$). According to the results, strategic intent ($p < 0.001$) contributes to the accumulation of foreign market knowledge, thus H1 was supported.

Regression results for hypotheses examining the significance of foreign market knowledge for international performance (H2), and the moderating effects of strategic intent (H3a) and age at internationalization (H3b) are presented in Table 2, Model 0', Model 2, and Model 3. The baseline model (Model 0') includes only control variables and moderators, the main effects model (Model 2) includes additionally independent varia-

ble (FMK), and full models (Model 3) includes interaction effects (FMK x strategic intent, FMK x age at internationalization). All models are statistically significant. As evidenced in Model 2, foreign market knowledge ($p < 0.01$) is significantly associated with international performance, thus, H2 is supported. In comparison with Model 0', Model 2 has significantly greater explanatory power (change in R-squared = 0.093, F-change = 10.960, $p < 0.001$).

Table 2. Linear regression results

Independent \ Dependent	Foreign Market Knowledge		International Performance		
	Model 0	Model 1	Model 0'	Model 2	Model 3
Foreign market knowledge [FMK]	n/a	n/a		0.387** (3.311)	0.410*** (4.057)
Strategic intent	n/a	0.462*** (4.455)	0.227* (2.212)	0.049 (0.444)	0.091 (0.976)
Age at internationalization	0.001 (0.009)	-0.021 (-0.204)	0.064 (0.624)	0.072 (0.758)	0.022 (0.265)
FMK x Intent	n/a	n/a	n/a	n/a	0.195* (2.393)
FMK x Age at int.	n/a	n/a	n/a	n/a	0.333*** (3.909)
Firm international experience	0.052 (0.422)	-0.028 (-0.253)	0.017 (0.160)	0.028 (0.278)	-0.017 (-0.195)
Firm size	0.299* (2.419)	0.281* (2.594)	0.180+ (1.670)	0.071 (0.673)	0.100 (1.121)
Ownership	0.103 (0.848)	0.035 (0.321)	0.325** (3.039)	0.312** (3.137)	0.314*** (3.722)
Foreign partners (suppliers)	-0.079 (-0.667)	-0.054 (-0.524)	-0.040 (-0.388)	-0.019 (-0.197)	-0.008 (-0.103)
Foreign partners (customers)	0.191 (1.558)	0.154 (1.425)	0.297** (2.766)	0.237* (2.343)	0.192** (3.105)
<i>Model summary</i>					
R2	0.179	0.378	0.389	0.482	0.644
Adjusted R2	0.100	0.308	0.320	0.414	0.584
F	2.284*	5.379***	5.644***	7.101***	10.671***
Change in R2		0.199		0.093	0.162
F-change		19.850***		10.960**	13.401***

Note: † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Source: own study.

In order to examine the hypotheses 3a and 3b assuming the moderation effects, the interaction terms (FMK x strategic intent, FMK x age at internationalization) were computed by multiplying the centred values of corresponding components (i.e. values of foreign market knowledge, strategic intent, and age at internationalization were standardized). Model 3 includes interaction effects and has significantly greater explanatory power than Model 2. Increase in explanatory power, captured by the change in R-squared (Model 3: change in R-squared = 0.162, F-change = 13.401, $p < 0.001$), confirms that both moderation effects exist (Cohen & Cohen, 1983).

To understand the interactive effects, two graphs were plotted (Figure 2 and Figure 3). They present the effect of foreign market knowledge on international performance, indicating that firm performance in foreign markets market increases with the stock of foreign market knowledge, and this relationship is accentuated when: (a) a firm started its international operation early (i.e. within three years since its inception; Figure 2); (b) a firm has a clearly formulated strategic intent (Figure 3). Implications of these findings are discussed in the next section.

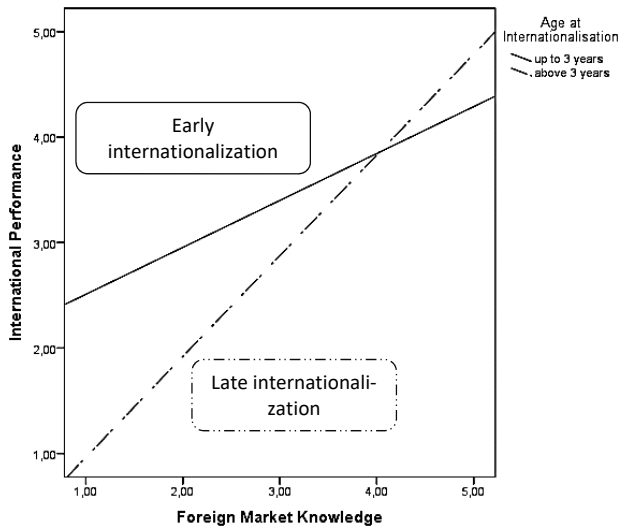


Figure 2. Moderation effect of age at internationalization
Source: own elaboration.

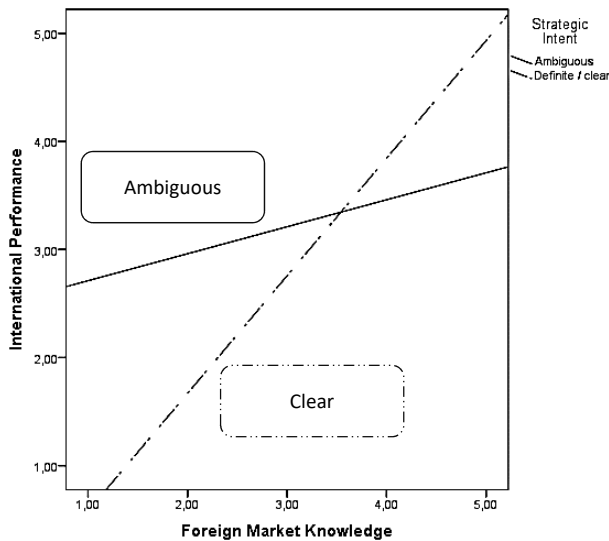


Figure 3. Moderation effect of strategic intent
Source: own elaboration.

DISCUSSION AND CONCLUSIONS

The current study sheds novel light on the foreign market knowledge and its relevance for a firm international performance by focusing on two aspects. First, the study findings suggest that differences in SMEs' ability to accumulate FMK can be explained by the strategic intent (Hamel & Prahalad, 1989), which is a new variable in this stream of research. The strategic intent (characterized by the sense of direction, destiny, and discovery) enables firms' ability to accumulate new knowledge. Therefore, the inclusion of strategic intent perspective, which in a broad sense was postulated by Johanson and Vahlne (2009) is justified, as well as bringing into discussion the original meaning of strategic intent as proposed by Hamel and Prahalad (1994). This way the study answers the call to enrich existing research "on what enhances the acquisition of foreign market knowledge in SMEs" (Mustee & Datta, 2011, p. 93).

Second, the study provides additional explanations to better understand when foreign market knowledge is particularly beneficial for firm international performance. As evidenced by the research results, the stock of accumulated knowledge is positively associated with the firm international performance (which is measured subjectively, by managers' satisfaction with their firms' international performance). This finding is generally in line with prior theoretical and empirical studies, indicating positive, direct or indirect, relationship between processes of learning and knowledge accumulation, and performance in foreign markets (Johanson & Vahlne, 1977; Eriksson *et al.*, 2000; Mogos Descotes & Walliser, 2013; Musteen *et al.*, 2014). However, more theoretically interesting contribution of this paper points to the conditions that affect this relationship. Indeed, the relationship is accentuated by both moderators i.e. strategic intent and time-to-internationalization.

In case of companies that have clearly formulated strategic intent, assimilation of new FMK results in greater performance gains than in case of firm with ambiguous or unclear strategic intent. It is postulated that strategic intent promotes/enhances the accumulation of FMK through focusing organizational efforts on spotting new opportunities in the marketplace which leads to the acquisition of new knowledge resulting from pursuing such opportunities. Strategic intent activates and directs the process of acquiring knowledge about foreign markets, increase efforts to acquire new knowledge and openness to multiple sources. Therefore, it can be argued that it sharpens attention to the identification and utilization of market opportunities. These findings resonate well with the postulated significance of managerial intentions for the resulting actions (Johanson & Vahlne, 2009) – in other words, the paper provides empirical evidence that strategic intent not only has a positive impact on FMK, but it also moderates the FMK-performance relationship.

Considering the effect of age at internationalization (i.e. time-to-internationalization), the study results reveal that in case of firms that were older than three years at the time of internationalization, the FMK-performance relationship was stronger. A time frame of three years was adapted in this study, as it is most often used in rapid internationalization literature (Knight, Bell & McNaughton, 2001; Aspelund & Moen, 2005). This finding supports the notion that small firms that decided to enter foreign markets after operating for at least four years in the domestic market, most likely

had the chance to develop their absorptive capacity (i.e. the ability to recognize the importance of new knowledge, absorb and use) (Cohen & Levinthal, 1990), so that they could expect later to achieve more pronounced performance gains resulting from the acquisition of FMK. As suggested in the literature, absorptive capacity increases along with the existing stock of knowledge (Cohen & Levinthal, 1990). In the light of the study results, it could be hypothesised that domestic knowledge and learning abilities (developed in the first years when firms focused solely on the domestic market) occurred later beneficial for the use of foreign market knowledge.

From the managerial point of view, the paper offers two implications. First, it provides evidence that SMEs that are able to develop and accumulate the stock of foreign market knowledge, may expect to achieve better international performance. Therefore, investing organizational efforts, time and resources to develop international learning routines is reasonable from 'business' perspective and most likely should be perceived by SMEs' owners and managers as 'an investment', not unnecessary a cost. Second, the paper offers at least partial explanation to the question 'what helps SMEs to accumulate this knowledge'. Here, the role of strategic intent should not be overlooked. Those SMEs, whose owners and managers are willing and able to define and communicate the strategic intent (that provides organizationally shared sense in terms of direction, destiny and discovery), are better prepared and predisposed to accumulate foreign market knowledge.

Although the empirical findings discussed in this paper broaden our understanding of conditions moderating the relationship between FMK and performance, and bring into discussion strategic intent perspective, the current study obviously suffers from several limitations. First, the sample comprised of firms operating within only one highly internationalized sector. Therefore, it should be recognized that the presented results are context-specific and their application to other industry contexts may be limited. In particular, it may concern the moderating effect of age at internationalization. In other contexts, for instance high-tech industries, results could be different, supporting rather learning advantage of newness' arguments. Second, the operationalization of the key construct, strategic intent, was not applied in prior research. The operationalization is based, however, on the description presented in original works of Hamel and Prahalad (1989), and its reliability scale is satisfactory. Thus, future studies should include more diversified, cross-industrial samples to validate the presented findings and proposed measurement of strategic intent. Finally, a promising research stream could examine through in-depth study design how exactly strategic intent is related to the absorptive capacity (i.e. the ability to recognize, absorb, and use the new knowledge (Zahra & George, 2002) in the context of "early and late internationalizers".

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Organizational Culture and Firms' Internationalization, Innovativeness and Networking Behaviour: Hofstede Approach

Maja Szymura-Tyc, Michał Kucia

ABSTRACT

Objective: The objective of this paper is to describe the features of firms' organizational culture within four of Hofstede's national culture dimensions and their potential relationships with internationalization, innovativeness and networking behaviour of firms.

Research Design & Methods: This explorative quantitative research refers to results of an earlier study on internationalization, innovativeness and networking of firms in Poland. Descriptive statistics are used to depict the features of the organizational culture of the firms differing in behaviour in the three fields.

Findings: The study leads to two hypotheses. First is that higher power distance is conducive for firms' internationalization and innovativeness. The second is that the lower uncertainty avoidance supports internationalization, innovativeness and networking behaviour of firms.

Implications & Recommendations: An attempt to create more consistent measures of organizational culture dimensions should be made in future analyses. This could help to achieve more sound results on the relationships between organizational culture and firms' behaviour in internationalization, innovativeness and networking.

Contribution & Value Added: The paper gives an insight into the organizational culture features relationships with a broad area of firms' behaviour related with their ability to gain competitive advantage.

Article type: research paper

Keywords: organizational culture; Hofstede approach; internationalization; innovativeness; networking

JEL codes: M14, D22, M16, O31, L21

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INTRODUCTION

Organizational culture is an important factor influencing the behaviour of firms and their performance in many fields. It has a broad scope of influence and it is very difficult to change in a short-term perspective. Organizational culture is conceptualized in many ways, one of them being based on the concept of national culture introduced by Hofstede (1980). Hofstede distinguished six dimensions of national culture and four of them: power distance, collectivism vs. individualism, uncertainty avoidance and long-term orientation are translated into organizational culture features that may be related to the performance of firms. Poland as a country is characterized by high level of power distance, high individualism, very high uncertainty avoidance and short-term orientation (geert-hofstede.com/Poland).

A significant number of empirical studies demonstrate the influence of the organizational culture on the innovativeness of firms, their willingness to network or their internationalization. Hofstede's concept was used to study the impact of culture on firm level entrepreneurship (Morris, Davis & Allen, 1994) and on entrepreneurship level of individual countries (Thomas & Mueller, 2000; Hayton, George & Zahra, 2002). It was also studied in the context of social networks in the international perspective (Zaheer & Zaheer, 1997; Manev & Stevenson, 2001). Furthermore, the concept is often employed in studies of foreign market entry modes, including joint ventures and strategic alliances, in the research conducted both on the individual countries' level and on an international scale. Finally, Hofstede's concept of culture dimensions is often related to the innovativeness and R&D analysed for individual countries and compared internationally (Shane, 1995; Shane, Venkataraman & MacMillan, 1995; Jones & Teegeen 2001; Kirkman, Lowe & Gibson, 2006).

Internationalization, innovativeness and networking are the most important drivers of firms' competitive advantage today. These phenomena are to a large extent interrelated, which creates a vicious circle for firms representing a low degree of internationalization and innovativeness and unwillingness to engage in networks as is the case for many firms in transition or emerging economies. Polish firms in general represent a low level of internationalization, innovativeness and reluctance to cooperate (Szymura-Tyc, 2015a; Lewandowska, Szymura-Tyc & Gołębiowski, 2015). The main research question that arises is whether there are any particular organizational culture features that underlie the specific firms' behaviour related to internationalization, innovativeness and networking. An answer to this question might help to understand better the organizational culture consequences for the firms' behaviour in the three fields and indicate directions of changes that might promote further development of these firms.

Hence, the general aim of this exploratory study is to describe the features of firms' organizational culture within the four above-mentioned Hofstede's dimensions of national culture, and find out their potential relationships with internationalization, innovativeness and networking behaviour of firms.

Research presented in this paper refers to results of an earlier study of internationalization, innovativeness and networking of firms in Poland conducted by one of the authors (Szymura-Tyc, 2015b). The current study is based on the empirical data collected *via* an internet survey. Descriptive statistics are used to depict the features of organizational culture of firms within the sample and within four clusters differing in the firms' behaviour

in the field of internationalization, innovativeness and networking. The results and conclusions refer to both stages of the research of the organizational culture's links to internationalization, innovativeness and networking behaviour of firms.

The paper continues with the literature review related to the Hofstede's concept of national culture and its dimensions as well as his understanding of the organizational culture within these dimensions. This part of the paper also presents selected empirical research results and theoretical assumptions concerning the potential relationship between Hofstede's concept of culture and firms' behaviour in relation to innovativeness, internationalization and networking. Additionally, a short review of literature on the interrelationships between internationalization, innovativeness and networking and a brief description of prior empirical research results are included in the theoretical part of the paper. As the current study on organizational culture is exploratory in nature, the literature review only leads to the formulation of research questions. After that, the research concept is presented together with the methodology, the research instrument and the empirical research process. The results are presented in two parts: for the entire sample and within clusters of firms. Conclusions, limitations, and future research avenues are discussed at the end of the paper.

LITERATURE REVIEW

Organizational Culture Concept: Hofstede Approach

The research on cultural determinants of the internationalization, innovativeness and networking of firms is based on the concept of national culture dimensions by Geert Hofstede. Hofstede's work of 1980 titled "*Culture's consequences: international differences in work related values*" and his subsequent achievements form the most influential theoretical concept that is the basis for the research on the consequences of culture for the performance of nations and countries, organizations, teams and individuals. Hofstede is cited much more often than other researchers of national cultures (Trompenaars, 1993) and his work is used in thousands of empirical studies (Kirkman *et al.*, 2006). He is also frequently criticized for various reasons (McSweeney, 2002; Smith, 2002). However, in spite of that fact, his concept underlies a lot of studies and research cases on different levels of analysis conducted by academics from many countries.

Hofstede distinguished four basic dimensions of culture: power distance (PD), collectivism vs. individualism (IDV), masculinity vs. femininity (MSC) and uncertainty avoidance (UA), the long-term orientation (LTO) added in 1991 as the fifth dimension and also the indulgency vs. restrained dimension (IND) added in 2010. Hofstede used the distinguished dimensions of culture to search for correlations between them and other measures describing the features of studied countries, which lead him to the conclusion that, in most cases, two or three dimensions have to be used to describe such dependencies (Hofstede, 2001, pp. 43-54). What is more, certain dimensions of culture are strongly correlated with one another, e.g. the power distance and the individualism have a high negative correlation (Boski, 2011, p. 100). Individualism vs. collectivism is the individual dimension of culture most frequently studied in various contexts while the power distance and uncertainty avoidance are the most frequently studied pair of dimensions.

Even though Hofstede assumed that his concept of culture dimensions refers to nations and should not be directly applied to organizations or individuals (the need to distinguish levels of an analysis in the convention “gardens – bouquets – flowers” (Hofstede, 1995), researchers using his concept refer to individuals and groups in an organization and the organization as a whole very often. Culture is usually an independent variable in such research influencing the performance of such entities or a variable moderating relation between other variables.

The popularity of Hofstede’s concept among management, entrepreneurship or international business academics probably results from that fact that the majority of Hofstede’s achievements is related to the interpretation of dimensions of culture in the context of people’s behaviours, which is translated, to a degree, to an organizational culture or at least to behaviour in a work place. Actually, Hofstede himself applied it to all six dimensions of culture: power distance, collectivism vs. individualism, femininity vs. masculinity, uncertainty avoidance, long-term orientation and indulgence vs. restrained (Hofstede, Hofstede & Minkov, 2011). However, masculinity vs. femininity is a dimension describing more the attitudes of people towards the relationship between personal life and work, while indulgence vs. restrained dimension translates only into a personal behaviour at a place of work.

Having in mind the aim of the study linking the organizational culture to internationalization, innovativeness and networking behaviour of firms, four organizational culture dimensions should be taken into account: power distance, collectivism vs. individualism, uncertainty avoidance and long-term orientation. The organizational culture features based on Hofstede’s national culture dimensions concept can be presented, somewhat simplified, below (Table 1).

The dimensions of an organizational culture so described by Hofstede *et al.* (2011) may affect the behaviour of firms in the area analysed in the study. In particular, such influence may apply to the organizational power distance (PD) and the organizational uncertainty avoidance (UA) considered in the context of innovativeness. It can also be important in internationalization of firms as some researchers define internationalization as an innovation involving an entry to a new, unknown market that requires new knowledge and is executed with an uncertainty of the attained result (Andersen, 1993, Kosała, 2015).

What might be important here is that the power distance and uncertainty avoidance are the basis for the grouping of countries in culture clusters differing in their way of thinking about an organization resulting in a strong link to its operation, including its innovativeness. The widely known classification of countries in clusters called the Machine, Pyramid, Market and Family places Poland in the Pyramid cluster as a country with a characteristic high power distance and very high uncertainty avoidance (Hofstede *et al.*, 2011, pp. 309-315). Poland shares that cluster with Mediterranean countries that are characterized by a lower degree of innovativeness than other developed countries with a significantly lower power distance and uncertainty avoidance (e.g. Scandinavian countries, Great Britain, the United States).

Table 1. Organizational culture features based on Hofstede national culture dimensions concept

Power distance in organization	
Low	High
Subordinates and superiors are co-dependent	Subordinates are dependent on superiors
Superiors consult their decisions with subordinates using their own experience and the experience of subordinates	Superiors make decisions without consultations with subordinates on the basis of the superiors' experience and formal regulations
Occupying top positions does not entail substantially higher salaries and special privileges	Occupying top positions entails substantially higher salaries and special privileges
Employees occupying lower positions perform different roles in the enterprise than employees on higher levels	Employees occupying lower positions have lesser abilities and skills than employees on higher levels
Important decisions are made on different levels and do not require strict control in the course of their execution	Important decisions are made on top levels and require strict control in the course of their execution
Collectivism and individualism in organization	
Collectivism	Individualism
Employees strive to act in the interest of the group they are part of	Employees strive to act in their own interest
Decisions concerning employees' salary and promotion depend on their membership in a group and achievements of the group	Decisions concerning employees' salary and promotion depend on the regulations in force and their individual achievements
Even if someone has a different opinion, she/he should adapt to the opinion of the collective	Everyone can have a different opinion and is expected to express it
Interpersonal relations are more important than the execution of tasks	The execution of tasks is more important than interpersonal relations
Relations between the employer and the employee resemble family ties	Relations between the employer and the employee are reduced to the employment contract
Uncertainty avoidance in organization	
Low	High
Change is more desirable than preservation of the current situation	Preservation of the current situation is more desirable than a change
Innovative and creative employees have more freedom	Innovative and creative employees are limited by regulations
Managers mainly focus on strategic issues and, to a lesser degree, on operational activities	Managers mainly focus on operational activities and, to a lesser degree, on strategic issues
Few matters are regulated in detailed regulations and they are usually complied with	Many matters are regulated in detailed regulations but they are not always complied with
Many ideas/inventions are generated but not all are implemented	Few ideas/inventions are generated but most of them are implemented
Short and long orientation of organization	
Short-term orientation	Long-term orientation
Actions taken are evaluated from the perspective of their effects in annual periods	Actions taken are evaluated from the perspective of their effects in many years' periods
Relations with business partners are evaluated from the perspective of short-term profits	Relations with business partners are evaluated from the perspective of long-term profits
Meeting the deadline for a task completion is more important than attaining an expected result	Attaining an expected result is more important than meeting the deadline for a task completion
A fast, spectacular market or financial success is more important than the gradual building of a strong market position	Building of a strong market position gradually is more important than a fast, spectacular market or financial success
Objectives of the managerial staff and employees diverge	Objectives of the managerial staff and employees converge

Source: own elaboration based on Hofstede et al. (2011, pp. 83-86; 127-133; 215-223; 250-258).

The organizational power distance and the organizational uncertainty avoidance may be also supplemented with the third organizational dimension – the individualism/collectivism (IDV). Sułkowski (2012) applies such a three-dimensional model of an organizational culture in the description of firms' behaviour in the management process, linking it with their competitive potential.

It is worth mentioning that Hofstede (2011) pointed out that the culture profile of Poland houses a contradiction resulting from high individualism (IDV) and high power distance (PD), which are usually negatively correlated. This contradiction creates a specific tension in Polish culture and a challenge for managers. To achieve fruitful results managers are advised to establish a second level of communication, having a personal contact with everybody in the structure, allowing to give the impression that "everybody is important" in the organization, although unequal (geert-hofstede.com/Poland).

The individualism/collectivism in organization dimension (IDV) alone may also have a potential significance for the networking i.e. the willingness of a firm to create network ties. It may influence the perception of individual and mutual interest, be connected with opportunistic attitudes toward business partners, result in the lack of trust and loyalty in business relationships. Combined with very high uncertainty avoidance (UA), high level of individualism may limit the firms' openness for cooperation within networks.

Considering the fact that both firms' innovativeness and internationalization require investments that bring about effects in a longer term, one should also take a fourth dimension into account, i.e. the organizational long-term/short-term orientation. This dimension may also appear significant in the process of creation of firms' long lasting relationships with business partners that provide basis for a network development.

Internationalization, Innovativeness and Networking: Interrelationships

The dominating model of firms' internationalization today is the network model of internationalization (Johanson & Mattsson, 1988; Johanson & Vahlne, 2009). The model describes the process of internationalization as a process of learning through networks (Sharma & Blomstermo, 2003; Blomstermo, Eriksson, Lindstrand & Sharma, 2004; Coviello, 2006). It assumes that knowledge exploitation enables the firm to expand on well-known paths of development only and reduces the risk of increased resource commitment in foreign market. The knowledge exploration from external sources, i.e. from partners in the network, allows for experimentation to explore new possibilities with higher risk but also higher potential profits in the longer term (Forsgren, 2002; Sharma & Blomstermo, 2003).

Eriksson, Majkgård and Sharma (2000) state that the experiential knowledge of a firm may be a barrier for its further internationalization as it limits the ability to recognize new possibilities for international development. The network ties, indirect and weak with multiple partners rather than direct and strong with few partners, offer an access to knowledge and resources of the network partners valuable for international expansion. Combined with the knowledge and resources of the firm, the network ties speed up and support the process of internationalization (Coviello & Munro, 1995; Sharma & Blomstermo, 2003; Coviello, 2006; Majkgård & Sharma, 1998; Bell, 1995). Forsgren (2002) and Johanson and Vahlne (2009) state that the network model of internationalization is universal as it describes how both small and medium firms (e.g. born global, new international ventures) and large corporations internationalize their activity by learning in networks.

Similarly, the network model of innovation (Rothwell, 1992) has been the model of innovation dominating since the early 90s. It explains the innovation process as a process of inter-organizational learning (Calantone, Cavusgil & Zhao, 2002) or network learning in innovation networks (Dhanaraj & Parkhe, 2006). The innovation processes span the firms' borders to integrate and share knowledge and resources of multiple partners needed for successful innovation. Innovation is created within networks that emerge as a result of the longitudinal cooperation between business partners or in networks engineered intentionally to create and support innovations. Powell, Koput and Smith-Doerr (1996) prove that if the knowledge base in an industry is complex and the sources of expertise are dispersed, innovation may be not created in a single firm and inter-organizational innovation cooperation is necessary. Access to the developing and evolving learning community becomes a critical factor for competitive advantage in the industry.

Furthermore, international business literature has been discussing relationships between internationalization and innovativeness of firms for a long time. The majority of studies on such relationships concentrate on the dependence between internationalization and innovativeness assuming that firms' internationalization is a result of their innovation activity or, more generally, is determined by their innovativeness. Empirical firm-level studies conducted in numerous countries and sectors generally confirm a positive link between innovation and exporting (Basile, 2001; Roper & Love, 2002; Becker & Egger, 2009). The other stream of research focuses on the opposite, presuming that internationalization can stimulate innovativeness because it offers access to new knowledge, more demanding customers and challenges of the international competitiveness (Gupta & Govindarajan, 2000; Zahra, Ireland & Hitt, 2000). Therefore, the innovativeness of a firm may be the outcome of a firm's preceding involvement in international market by exports and learning by exporting is considered to be leading to an increased innovativeness of a firm (Salomon & Shaver, 2005; Salomon & Jin, 2008).

The findings of three research streams combined have led to a hypothesis that the internationalization, innovativeness and networking are interrelated. The empirical research performed by the one of the authors has confirmed that positive relationships exist between all three concepts: internationalization, innovativeness and networking (Szymura-Tyc & Łapczyński, 2012). The empirical research conducted by direct questionnaire interview covered 274 firms located in Poland. Firstly, the collected data has allowed for the measuring of the firms' degree of internationalization, innovativeness and networking with the use INT, INN and NET indices based on formative indicators. The measures indicated a low degree of internationalization, medium innovativeness and a relatively high degree of networking of the studied firms. Secondly, the analysis of relationships between internationalization, innovativeness and networking demonstrated positive although weak to moderate correlations between all the three indices. Thirdly, the research showed that there were significant differences in the firms' behaviour in the field of internationalization, innovativeness and networking. The firms with similar values of the INT, INN and NET indices have been grouped with the use of a cluster analysis called self-organizing maps (SOM) or the Kohonen network (Kohonen, 1990). As a result, four clusters of firms with different characteristics of behaviour in the internationalization, innovativeness and networking area were distinguished. Graphical illustration of the clusters identified by the SOM method is presented in Figure 1.

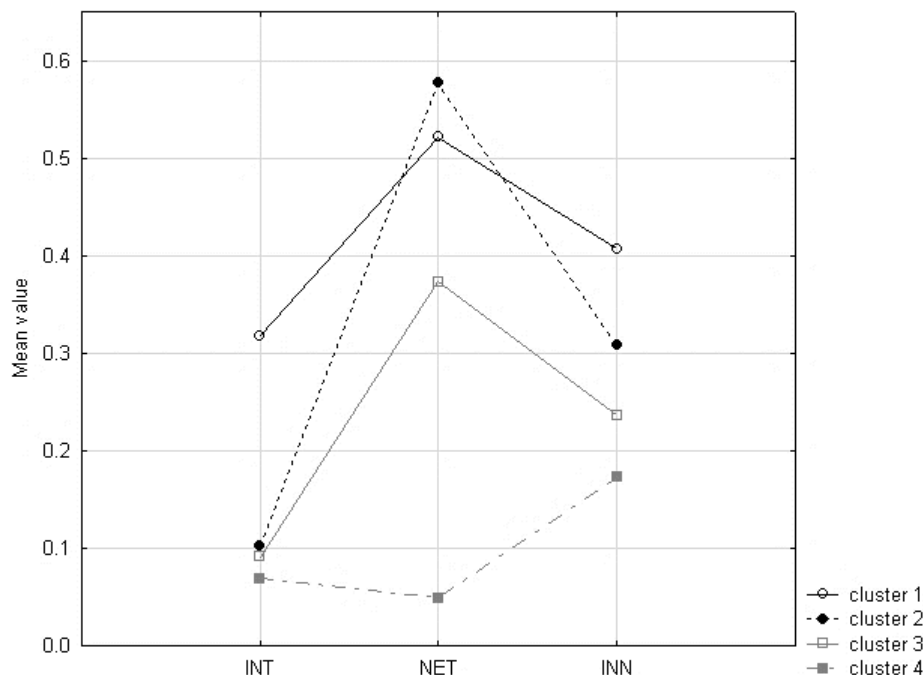


Figure 1. Clusters of enterprises distinguished with the use of the SOM method ($n = 274$)

Source: Szymura-Tyc (2015b, p. 187); Szymura-Tyc and Łapczyński (2012, p. 298).

Firms in the first cluster (SOM 1) have a moderate degree of internationalization, high degree of innovativeness and high degree of networking. These firms may be called “international network and innovation high-fliers”. The second cluster (SOM 2) contains firms with low internationalization, moderate innovativeness and high networking degree called “local innovation and network front-runners”. The third cluster (SOM 3) consists of firms with low degree of internationalization, moderate innovativeness and moderate networking named “local innovation and network commoners”. The fourth cluster (SOM 4) embraces firms with the lowest internationalization, innovativeness and networking labelled “local innovation and network laggards”.

The analysis of relationships between the degree of internationalization, innovativeness and networking of the studied firms belonging to individual clusters made it possible to make certain assumptions regarding the dependence path in the analysed area. As for the first cluster, it was assumed that a relatively high internationalization degree was conducive to high innovativeness, both being supported by a high networking degree of the firms. Regarding cluster two, it was presumed that a moderate innovativeness of firms could not be linked to their internationalization as it was not very high. However, the innovativeness of these firms can be “drawn” by their network ties as these firms are characterized by the highest degree of the networking in the studied population. In the third cluster, consisting of firms whose internationalization resembles the internationalization of firms belonging to the second cluster, the innovativeness degree that is lower in the second cluster can be due to a much lower degree of networking. The last cluster consisted

of firms operating mainly on a local market with the lowest innovativeness accompanied by the markedly lowest networking that could "pull down" their innovativeness.

The findings described above concerning the firms' behaviour in internationalization, innovativeness and networking fields as well as rather general knowledge of the potential influence of organizational culture on this behaviour resulted in further research assumptions leading for the explorative study presented in this paper. The first assumption is that the actual degree of internationalization, innovativeness and networking of the studied firms may be related to some extent to their organizational culture features. The second assumption is that differences in firms' behaviour identified by the cluster analysis may be dependent on the differences in the organizational cultures of firms in the particular clusters.

As a result, the objective of the current stage of the research has been to answer the following research questions:

- What are the features of the organizational culture of the studied firms in the context of the Hofstede's concept of national culture dimensions?
- May the distinguished features of organizational culture be related with the firms' behaviour in the internationalization, innovativeness and networking fields?
- Are the firms belonging to the individual clusters characterised by different features of their organizational cultures?
- May the differences in the organizational culture features within individual clusters be related to the different firms' behaviour in internationalization, innovativeness and networking fields?

MATERIAL AND METHODS

Research Instrument and Research Process

The organizational culture is treated in the study as a variable independent from the internationalization, innovativeness and networking of firms. It is divided into four dimensions: power distance, collectivism/individualism, uncertainty avoidance, and short/long-term orientation. The dimensions of the organizational culture are constituted by features assigned by Hofstede to the individual dimensions of national culture as presented in table 1.

The explorative empirical study is based on an internet survey with the use of a questionnaire developed for the quantitative research. The research instrument contained five questions related to situations occurring in the surveyed firms within each of the four dimensions of their organizational culture. Respondents were asked to indicate whether any of the described situations: (1) *corresponds to the situation in the firm to a degree*; (2) *greatly corresponds to the situation in the firm*; (3) *fully corresponds to the situation in the firm*. They could also indicate (0) if, in their opinion, *none of the described situations prevailed in the firm*. All of the provided answers created a 7-items Likert-type bipolar scale referring to the opposing designations of features of the organizational culture within its individual dimensions. This type of scale is commonly used in psychometric studies to measure attitudes and behaviours by ascribing values to qualitative answer choices that range from one extreme to another. For example, the short/long-term orientation scale ranged from 1 to 7, where 4 represented a situation in which none of the described situations prevailed in a firm. Respondents were not aware to which of the opposite culture

features descriptions lower scores were assigned corresponding to a lower level of the studied dimension and to which of them higher scores were assigned indicating its higher level. It was possible thanks to a random reversal of the opposite culture features descriptions within the individual culture dimensions, which is in line with the recommendation for this research technique (Osgood, Suci & Tannenbaum, 1957). After collecting the data, the answers were assigned proper values and results were subjected to the statistical descriptive analysis. The long-lasting disagreement among statisticians whether the Likert items are interval-level data or ordered-categorical data inclined the authors to adopt a compromise in the form of the presentation of all three measures of the central tendency: mode, median and mean. The means for individual organizational culture features are presented in the paper because the authors share the prevailing opinion that if the Likert-type scale is symmetric and equidistant it may be treated as a quasi-interval scale allowing for the calculation of scores for a group of items.

Research Sample and Respondents

The target of the internet survey consisted of all the 274 firms participating in the first stage of the research. Therefore, each survey was preceded by on-the-phone conversations with respondents in order to invite and encourage them to participate in the second stage of the research. An attempt was also made to obtain a proportional number of firms in each of the four clusters distinguished in the earlier study. As a result, 130 firms completed the entire electronic survey questionnaire. It means that the return rate is 47% of the firms whose internationalization, innovativeness and networking was studied previously. A relatively proportional number of firms was also obtained in each of the four clusters: respectively 66%, 42%, 41% and 61% of the firms in a cluster.

It was assumed at the beginning of the empirical research that respondents participating in the survey should be members of the top or medium-level management of firms. It is because Hofstede's cultural research shows that the perception of the culture dimensions can vary depending on the social position of a respondent. It was not easy to attain that goal. As a result, top and medium-level management constitute about 30%, while specialists and accountants make for another 30%, and management assistants and secretaries form almost one fourth of respondents (Table 2). The majority of respondents has at least 6 years of employment history and the average employment history is 8 years. This fact may be a symptom of the respondents' good knowledge of the organizational culture of studied firms.

Table 2. Characteristics of respondents ($n = 127$)*

Position in the firm	Share in the sample [%]
Top and medium-level management	27.7
Specialists and accountants	30.0
Management assistants /secretaries	23.8
Other positions	18.5

* in three cases, respondents did not provide the information about the occupied position.

Source: own study.

RESULTS AND DISCUSSION

The analysis of features comprising individual dimensions of the organizational culture was conducted for the entire sample and in individual SOM clusters. The goal of the conducted analyses was to identify the features of organizational cultures in all firms subject to the research and their differentiation depending on the type of behaviour related to the internationalization, innovativeness and networking. The descriptive statistics used in the study are mode (Mo), median (Me) and mean (M). The mode shows the value with highest frequency of answers, the median divides the sample into equal parts showing the central value for a feature, while the mean is the arithmetic mean of the values ascribed to an organizational culture feature in a sample. It is assumed that the 1-3 modes and medians represent, respectively, a very low, low and moderate low level of a culture feature within a given dimension, 4 – moderate, and 5-7 – moderately high, high and very high level respectively. As far as the means are concerned, the 1-3.5 value consistently indicates a very low to moderately low level of a feature; 3.6-4.4 – moderate and 4.5-7 – a moderately high to very high level.

Characteristics of Organizational Cultures Features in Entire Sample

The first step of the analysis was the description of cultural features for the whole research sample within the four studied dimensions: power distance, individualism, uncertainty avoidance and long term orientation. For detailed descriptive statistics see Appendix 1.

Power Distance in an Organization

The analysis of the frequency of indications related to the power distance in an organization shows that the largest number of the surveyed firms assess the dimension as low or moderately low. The prevailing opinion is that subordinates and superiors are co-dependent, occupying top positions does not entail substantially higher salaries or special privileges while important decisions are made on different levels and do not require strict control in the course of their execution. The only exception is the prevailing belief that employees occupying lower positions have lesser abilities and skills than employees on higher levels, which suggests a greater power distance in the organization. Median values are between 3-4, which means that half of the firms report a moderately low to moderate level of the power distance organizational culture features. The highest mean denotes the way of making decisions by superiors without consultations with subordinates indicating a more authoritarian style of the firms' managers. The situation is similar for means within 3.53-4.08, which suggests a moderately low to moderate power distance in the entire sample. The highest mean denotes the way of making decisions by superiors without consultations with subordinates indicating a more authoritarian style of the firms' managers.

Individualism in an Organization

The analysis of survey data on individualism vs. collectivism in the studied firms shows the prevalence of opinions denoting a moderately high level of individualism. It is reflected by the indication that employees strive to act in their own interest, that everyone can have a different opinion and is expected to express it, that the execution of tasks is more important than interpersonal relations and that relations between the employer and the employee are reduced to the employment contract. It was only with regard to salaries that the largest number of respondents pointed at a moderately low level of individualism reflected by the fact that decisions concerning employee salaries and promotions depend on their membership in a group and achievements of the group rather than on their individual achievements. In spite of the prevalence of symptoms of a moderately high level of individualism in the firms, the median value ranges from 4 to 4.5 indicating a moderately high level of individualism in one half of the sample. The mean values describing the organizational culture range from 3.77 to 4.24 depicting a moderate level of individualism in the entire research sample.

Uncertainty Avoidance in Organization

The situation is similar for the level of uncertainty avoidance in the surveyed firms where prevalent responses are indicative of a moderately high uncertainty avoidance. It is pointed out that innovative and creative employees are limited by regulations, many matters are regulated in detailed regulations that are not always complied with. While few ideas/inventions are generated, most of them are implemented. In the case of the managerial focus, the largest number of respondents indicated a high level of uncertainty avoidance reflected by the fact the managers mainly focus on operational activities and, to a lesser degree, on strategic issues. Only the dominance of an indication that change is more desirable than the current situation might signal a lower level of uncertainty avoidance. As far as the median values are concerned, they suggest a moderately high and moderate level of uncertainty avoidance, which is also reflected in the mean values describing the organizational culture features within the range of 3.67-4.53, representing moderate and moderately high uncertainty avoidance in the studied firms.

Long-Term Orientation in an Organization

As far as the short-term vs. long-term orientation in organization is concerned, the dominance of indications of the long-term orientation suggests a high level of this dimension in the entire sample. The respondents point out that actions taken in a firm are evaluated from the perspective of their effects in many years' periods, relations with business partners are evaluated from the perspective of long-term profits, attaining an expected result is more important than meeting the deadline for a task completion and objectives of the managerial staff and employees converge. It was only in the case of the general aim of a firm described as the company building a strong market position gradually rather than striving to achieve a fast, spectacular market or financial success, that the largest number of firms supported it at a moderately high level. In most cases, median values report the moderately high level of long-term orientation as central in the sample, while the mean values of the organizational culture range from 4.17 to 4.68, representing the moderate to moderately high level of the long-term orientation dimension in surveyed firms – the

lowest one for the time perspective in business partners relationships assessment and the longest one in the evaluation of activities conducted within the firm.

To sum it up, research results for the entire sample of surveyed firms show that the power distance (PD) is at a moderate level with a tendency towards moderately low, the individualism (IDV) is moderate with a tendency towards moderately high, the uncertainty avoidance (UA) is also moderate towards moderately high and the long-term orientation (LTO) is moderately high with a tendency towards a high level of this dimension (Table 3).

Table 3. Evaluation of the organizational culture features within the Hofstede's dimensions (n = 130)

Organizational culture dimension	Evaluation of culture features		
	by dominant value (Mo)	by central value (Me)	by mean values (M)
power distance	low (3) moderate low (1) moderate high (1)	moderate low (4) moderate (1)	moderate low (2) moderate (3)
individualism	moderate low (1) moderate high (4)	moderate (4) moderate high (1)	moderate (5)
uncertainty avoidance	moderate low (1) moderate high (3) high (1)	moderate (2) moderate high (3)	moderate (4) moderate high (1)
long-term orientation	high (4) moderate high (1)	moderate (1) moderate high (4)	moderate (2) moderate high (3)

(1, 2, ...) – numbers in brackets represent the number of organizational culture features which are ascribed the particular assessment

Source: own study.

Having in mind that the degree of internationalization for the entire sample is low, the innovativeness is moderate and the networking – relatively high, the power distance (PD) and individualism (IDV) could be expected at least at a moderate level, uncertainty avoidance (UA) – at a high level and the long-term orientation (LTO) at a level that is not higher than moderate. The results go in line with the expectations regarding the individualism and uncertainty avoidance. However, the power distance is lower than expected and the most surprising results show that the long-term orientation is moderately high.

The results are not easy to discuss in the light of other researchers' findings as the scope of the study is very broad. This fact stands for the originality of the study but, on the other hand, it limits the comparative analysis. Furthermore, latent variables being the basis for calculation of the internationalization, innovativeness and networking indices are built on formative variables, which is not a common practise in studies concerning cultural determinants of firms' behaviour in the field of innovativeness or networking.

Characteristics of Organizational Culture Features in SOM Clusters

The second step of the exploratory study involved a description of the organizational culture features in all four dimensions separately for each of the identified clusters. The detailed descriptive statistics are provided in the Appendix 2.

International Network and Innovation High-Fliers (SOM1)

Firms belonging to SOM1 named “the international network and innovation high-fliers” are characterised by a moderate internationalization, high innovativeness, and high networking. In the case of the power distance (PD), firms from this cluster most often declare a moderately high or high level of power distance in their organizational culture. However, the median value predominantly indicates a moderate level of features describing this dimension and the same applies to the mean values pointing at a moderate power distance for all features constituting the power distance dimension. As far as individualism is concerned (IDV), there is a lack of consistency of the dominant values; each feature of culture has a different mode. Both the median and the mean range from moderately low to moderately high and most probably the moderate level would be the one that describes the level of individualism in SOM1 best. Uncertainty avoidance (UA) is described as moderate to very high, however, a moderate level may be considered most frequently related to the organizational culture features comprising this dimension. As for the long-term orientation (LTO), conclusions may be made on the basis of the medians and means most frequently reflecting a moderately high level of the features depicting this dimension of the firms’ culture (Table 4).

Table 4. Evaluation of the organizational culture features within the Hofstede’s dimensions in SOM1 ($n = 27$)

Organizational culture dimension	Evaluation of organizational culture features		
	by dominant value (Mo)	by central value (Me)	by mean values (M)
power distance	moderate high (1) high (1)	moderate (4) moderate high (1)	moderate (5)
individualism	low (1) moderate low (1) moderate (1) moderate high (1) high (1)	moderate low (2) moderate (1) moderate high (2)	moderate low (1) moderate (3) moderate high (1)
uncertainty avoidance	moderate high (2) high (1)	moderate (2) moderate high (3)	moderate (4) moderate high (1)
long-term orientation	moderate (1) very high (1)	moderate (1) moderate high (4)	moderate (2) moderate high (3)

(1, 2, ...) – numbers in brackets represent the number of organizational culture features which are ascribed the particular assessment; if in case of modes the numbers do not sum to 5 multimodal distribution appeared for some features of organizational culture

Source: own study.

Local Innovation and Network Front Runners (SOM2)

Firms constituting the SOM2 are described as “local innovation and network front runners” because they are characterised by low internationalization, moderate innovativeness and high networking. The power distance (PD) level in this cluster may be described by medians and means that show a moderately low to moderate level of the organizational culture features under study, with the prevalence of indications towards a moderately low power distance. Individualism (PD) is also moderate as suggested by the central values and means describing the level of cultural features within this dimension. Uncertainty avoidance (UA) is moderate or moderately high as regards most of the culture feature; however,

it is on a moderate level that prevails in these results. The last dimension, i.e. the long-term orientation (LTO) is characterized by a moderate and moderately high level of features constituting it and it is difficult to compare them; however, the frequency of answers may suggest that moderately high can be a better evaluation of this dimension level in the cluster (Table 5).

Table 5. Evaluation of the organizational culture features within the Hofstede's dimensions in SOM2 (n = 48)

Organizational culture dimension	Evaluation of organizational culture features		
	by dominant value (Mo)	by central value (Me)	by mean values (M)
power distance	low (4) moderate high (1)	moderate low (4) moderate high (1)	moderate low (2) moderate (3)
individualism	moderate low (1) moderate (1) moderate high (2) high (1)	moderate (4) moderate high (1)	moderate (5)
uncertainty avoidance	low (1) moderate high (4) high (1)	moderate low (1) moderate (2) moderate high (2)	moderate (4) moderate high (1)
long-term orientation	moderate low (1) moderate high (1) high (2)	moderate (1) moderate high (4)	moderate (4) moderate high (1)

(1, 2, ...) – numbers in brackets represent the number of organizational culture features which are ascribed the particular assessment; if in case of modes the numbers do not sum to 5 multimodal distribution appeared for some features of organizational culture

Source: own study.

Local Innovation and Network Commoners (SOM 3)

The third cluster – SOM3 – includes firms called “local innovation and network commoners” as they present low internationalization, moderate innovativeness, and a moderate degree of networking. Power distance (PD) is at a moderate low level in this sample, indicated by the majority of the descriptive statistics for the cultural features within this dimension. The Individualism (IDV) might be evaluated as ranging from moderate to moderately high with the prevalence of moderate indications. The level of uncertainty avoidance (UA) is more diversified when it comes to modes and medians but, in general, it may be assessed as moderately high. The long-term orientation clearly tends towards moderately high for the majority of organizational culture features comprising the dimension (Table 6).

Table 6. Evaluation of the organizational culture features within the Hofstede's dimensions in SOM3 (n = 39)

Organizational culture dimension	Evaluation of organizational culture features		
	by dominant value (Mo)	by central value (Me)	by mean values (M)
power distance	low (2) moderate low (2)	low (1) moderate low (4)	moderate low (4) moderate (1)
individualism	low (1) moderate low (1) moderate high (3)	moderate low (1) moderate (2) moderate high (2)	moderate (4) moderate high (1)
uncertainty avoidance	moderate low (1) moderate high (1) high (1)	moderate low (1) moderate (2) moderate high (2)	moderate (1) moderate high (4)
long-term orientation	moderate high (2) high (3)	moderate (1) moderate high (3) high (1)	moderate (1) moderate high (4)

(1, 2, ...) – numbers in brackets represent the number of organizational culture features which are ascribed the particular assessment; if in case of modes the numbers do not sum to 5 multimodal distribution appeared for some features of organizational culture

Source: own study.

Local innovation and network laggards (SOM 4)

The last cluster – SOM4 – embraces firms labelled “local innovation and network laggards” whose internationalization, innovativeness as well as networking are low. Firms in the cluster are characterized by moderate power distance (PD). The results for individualism (IND) offer a mixed picture ranging from moderately low to moderately high; hence, the moderate level might be a proper evaluation of the dimension. The uncertainty avoidance (UA) tends to be moderately high while the long-term orientation (LTO) that shows mixed results may be considered tending towards a moderately high level of the organizational culture features comprising the dimension (Table 7).

Table 7. Evaluation of the organizational culture features within the Hofstede's dimensions in SOM4 (n = 19)

Organizational culture dimension	Evaluation of organizational culture features		
	by dominant value (Mo)	by central value (Me)	by mean values (M)
power distance	low (2) moderate high (1)	moderate low (1) moderate (4)	moderate low (1) moderate (4)
individualism	moderate low (2) high (1)	moderate low (3) moderate high (2)	moderate (4) moderate high (1)
uncertainty avoidance	moderate low (1) moderate high (2) high (1)	moderate (1) moderate high (4)	moderate (2) moderate high (3)
long-term orientation	moderate high (3) high (2)	moderate (1) moderate high (4)	moderate (4) moderate high (1)

(1, 2, ...) – numbers in brackets represent the number of organizational culture features which are ascribed the particular assessment; if in case of modes the numbers do not sum to 5 multimodal distribution appeared for some features of organizational culture

Source: own study.

The analysis of results of the study for individual SOMs, i.e. clusters with different behaviours of firms in the area of internationalization, innovativeness and networking, shows few differences in the organizational culture dimensions depicted by the descriptive statistics of organizational culture features presented above. A summary of the findings is included in table 8.

Table 8. Comparative analysis of the organizational culture features evaluations for individual SOMs

Culture dimension	SOM1 <i>international network and innovation high-fliers</i>	SOM2 <i>local innovation and network front-runners</i>	SOM3 <i>local innovation and network commoners</i>	SOM4 <i>local innovation and network laggards</i>
	- moderate internationalization - high innovativeness - high networking	- low internationalization - moderate innovativeness - high networking	- low internationalization - moderate innovativeness - moderate networking	- low internationalization - low innovativeness - low networking
PD	moderate	moderate low	moderate	moderate
IDV	moderate	moderate	moderate	moderate
UA	moderate	moderate	moderate high	moderate high
LTO	moderate high	moderate high	moderate high	moderate high

Source: own study.

The comparative study shows that, for SOM1 and SOM2 that differ essentially with the degree of internationalization and innovativeness, a divergence appears in the case of the power distance only, which is higher for the international network and innovation high-fliers. Higher uncertainty avoidance is a distinctive organizational culture characteristic of local innovation and network commoners (SOM3) representing a lower degree of networking than in the case of firms belonging to SOM1 and SOM2. SOM4 comprised of local innovation and network laggards in the field of internationalization, innovativeness and networking shares the same level of the four culture dimensions as SOM3. And again, a moderately high level of the long-term orientation – the same for all four SOMs – is the most surprising feature here.

The findings of the study are satisfying to a degree. They show that a higher power distance is needed for a firm to become an international network and innovation high-flier. International high-fliers or local front-runners are characterized by lower uncertainty avoidance than local innovation and network commoners and laggards.

The long-term orientation as conceptualized in the study is not a dimension that differentiates the behaviour of firms in the area of internationalization, innovativeness and networking. One of the possible explanations of the fact is that it was much easier for the respondents to guess the “favoured answers” in the case of statements relating to the organization culture features constituting the long-term orientation dimension, which means that the social desirability bias might underlie the results.

CONCLUSIONS

The study as an explorative one may serve to pose two hypotheses for further research. The first one is that higher power distance may be conducive for dealing with moderate

individualism if the ambitious aims of the firms' internationalization and innovativeness are to be achieved. The second one is a presumption that a lower uncertainty avoidance may be indicative of a higher openness for new opportunities and risk acceptance leading to a higher degree of internationalization, innovativeness and networking in firms.

The study presented here has many limitations. Firstly, the analysis is based on a non-representative sample, which means that the findings only refer to the population under study. Secondly, there is the differentiation of the positions occupied in the firms by the respondents participating in the survey, which may have influenced certain answers and the achieved results. Thirdly, there is the construction of the research instrument that includes statements concerning organizational culture features giving inconsistent results within particular culture dimensions. The analysis of the three descriptive statistics shows a variety of answers appearing within individual culture dimensions representing very different or even opposite levels of the culture characteristics.

To make up for the inconsistencies, an attempt could be made in the further analysis of the organizational culture to create more consistent measures of organizational culture dimensions. Individual features of the firms' organizational culture could be considered formative variables constituting indices that can be measures of the organizational power distance, individualism, uncertainty avoidance and long-term orientation. Perhaps a change of the methodological approach would make it possible to obtain more sound results regarding the relationships between the organizational culture of firms and their behaviour as regards the internationalization, innovativeness and networking.

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Appendix 1: Descriptive statistics for organizational culture features within Hofstede's dimensions in the entire sample

Entire sample		Mo	Me	M	N=130
Power distance in organization	Subordinates and superiors are co-dependent	2	3	3.52	Subordinates are dependent on superiors
	Superiors consult their decisions with subordinates using their own experience and the experience of subordinates	3	3.5	4.08	Superiors make decisions without consultations with subordinates on the basis of the superiors' experience and formal regulations
	Occupying top positions does not entail substantially higher salaries and special privileges	2	3	3.52	Occupying top positions entails substantially higher salaries and special privileges
	Employees occupying lower positions perform different roles in the enterprise than employees on higher levels	5	4	3.95	Employees occupying lower positions have lesser abilities and skills than employees on higher levels
	Important decisions are made on different levels and do not require strict control in the course of their execution	2	3	3.69	Important decisions are made on top levels and require strict control in the course of their execution
Individualism in organization	Employees strive to act in the interest of the group they are part of	5	4	3.77	Employees strive to act in their own interest
	Decisions concerning employees' salary and promotion depend on their membership in a group and achievements of the group	3	4	4.24	Decisions concerning employees' salary and promotion depend on the regulations in force and their individual achievements
	Even if someone has a different opinion, she/he should adapt to the opinion of the collective	5	4.5	4.16	Everyone can have a different opinion and is expected to express it
	Interpersonal relations are more important than the execution of tasks	5	4	4.16	The execution of tasks is more important than interpersonal relations
	Relations between the employer and the employee resemble family ties	5	4	4.04	Relations between the employer and the employee are reduced to the employment contract
Uncertainty avoidance in organization	Change is more desirable than preservation of the current situation	3	4	3.67	Preservation of the current situation is more desirable than a change
	Innovative and creative employees have more freedom	5	5	4.42	Innovative and creative employees are limited by regulations
	Managers mainly focus on strategic issues and, to a lesser degree, on operational activities	6	5	4.53	Managers mainly focus on operational activities and, to a lesser degree, on strategic issues
	Few matters are regulated in detailed regulations and they are usually complied with	5	4	3.88	Many matters are regulated in detailed regulations but they are not always complied with
	Many ideas/inventions are generated but not all are implemented	5	5	4.36	Few ideas/inventions are generated but most of them are implemented
Long term orientation in organization	Actions taken are evaluated from the perspective of their effects in annual periods	6	5	4.68	Actions taken are evaluated from the perspective of their effects in many years' periods
	Relations with business partners are evaluated from the perspective of short-term profits	6	5	4.17	Relations with business partners are evaluated from the perspective of long-term profits
	Meeting the deadline for a task completion is more important than attaining an expected result	6	4	4.27	Attaining an expected result is more important than meeting the deadline for a task completion
	A fast, spectacular market or financial success is more important than the gradual building of a strong market position	5	5	4.47	Building of a strong market position gradually is more important than a fast, spectacular market or financial success
	Objectives of the managerial staff and employees diverge	6	5	4.45	Objectives of the managerial staff and employees converge

Source: own study.

Appendix 2: Descriptive statistics for organizational culture features within Hofstede's dimensions in SOMs

SOM1		Mo	Me	M	N=27
Power distance in organization	Subordinates and superiors are co-dependent	6	4	3.92	Subordinates are dependent on superiors
	Superiors consult their decisions with subordinates using their own experience and the experience of subordinates	x	4	4.11	Superiors make decisions without consultations with subordinates on the basis of the superiors' experience and formal regulations
	Occupying top positions does not entail substantially higher salaries and special privilege	x	4	3.93	Occupying top positions entails substantially higher salaries and special privilege
	Employees occupying lower positions perform different roles in the enterprise than employees on higher levels	5	5	4.04	Employees occupying lower positions have lesser abilities and skills than employees on higher levels
	Important decisions are made on different levels and do not require strict control in the course of their execution	x	4	4.04	Important decisions are made on top levels and require strict control in the course of their execution
Individualism in organization	Employees strive to act in the interest of the group they are part of	2	3	3.26	Employees strive to act in their own interest
	Decisions concerning employees' salary and promotion depend on their membership in a group and achievements of the group	6	5	4.59	Decisions concerning employees' salary and promotion depend on the regulations in force and their individual achievements
	Even if someone has a different opinion, she/he should adapt to the opinion of the collective	5	5	4.15	Everyone can have a different opinion and is expected to express it
	Interpersonal relations are more important than the execution of tasks	3	3	3.78	The execution of tasks is more important than interpersonal relations
	Relations between the employer and the employee resemble family ties	4	4	3.89	Relations between the employer and the employee are reduced to the employment contract
Uncertainty avoidance in organization	Change is more desirable than preservation of the current situation	5	4	3.85	Preservation of the current situation is more desirable than a change
	Innovative and creative employees have more freedom	x	5	4.30	Innovative and creative employees are limited by regulations
	Managers mainly focus on strategic issues and, to a lesser degree, on operational activities	6	4	3.96	Managers mainly focus on operational activities and, to a lesser degree, on strategic issues
	Few matters are regulated in detailed regulations and they are usually complied with	5	5	4.33	Many matters are regulated in detailed regulations but they are not always complied with
	Many ideas/inventions are generated but not all are implemented	x	5	4.59	Few ideas/inventions are generated but most of them are implemented
Long term orientation in organization	Actions taken are evaluated from the perspective of their effects in annual periods	x	5	4.59	Actions taken are evaluated from the perspective of their effects in many years' periods
	Relations with business partners are evaluated from the perspective of short-term profits	x	5	4.78	Relations with business partners are evaluated from the perspective of long-term profits
	Meeting the deadline for a task completion is more important than attaining an expected result	4	4	3.89	Attaining an expected result is more important than meeting the deadline for a task completion
	A fast, spectacular market or financial success is more important than the gradual building of a strong market position	7	5	4.93	Building of a strong market position gradually is more important than a fast, spectacular market or financial success
	Objectives of the managerial staff and employees diverge	x	4.5	4.35	Objectives of the managerial staff and employees converge

(x) – multimodal distribution

SOM2		Mo	Me	M	N=48
Power distance in organization	Subordinates and superiors are co-dependent	2	3	3.38	Subordinates are dependent on superiors
	Superiors consult their decisions with subordinates using their own experience and the experience of subordinates	2	3	4.00	Superiors make decisions without consultations with subordinates on the basis of the superiors' experience and formal regulations
	Occupying top positions does not entail substantially higher salaries and special privilege	2	3	3.54	Occupying top positions entails substantially higher salaries and special privilege
	Employees occupying lower positions perform different roles in the enterprise than employees on higher levels	5	4.5	4.08	Employees occupying lower positions have lesser abilities and skills than employees on higher levels
	Important decisions are made on different levels and do not require strict control in the course of their execution	2	3	3.56	Important decisions are made on top levels and require strict control in the course of their execution
Individualism in organization	Employees strive to act in the interest of the group they are part of	5	4	3.77	Employees strive to act in their own interest
	Decisions concerning employees' salary and promotion depend on their membership in a group and achievements of the group	3	4	4.23	Decisions concerning employees' salary and promotion depend on the regulations in force and their individual achievements
	Even if someone has a different opinion, she/he should adapt to the opinion of the collective	6	4.5	4.27	Everyone can have a different opinion and is expected to express it
	Interpersonal relations are more important than the execution of tasks	5	4	4.15	The execution of tasks is more important than interpersonal relations
	Relations between the employer and the employee resemble family ties	4	4	4.17	Relations between the employer and the employee are reduced to the employment contract
Uncertainty avoidance in organization	Change is more desirable than preservation of the current situation	2	3.5	3.65	Preservation of the current situation is more desirable than a change
	Innovative and creative employees have more freedom	6	5	4.40	Innovative and creative employees are limited by regulations
	Managers mainly focus on strategic issues and, to a lesser degree, on operational activities	5	5	4.81	Managers mainly focus on operational activities and, to a lesser degree, on strategic issues
	Few matters are regulated in detailed regulations and they are usually complied with	5	3	3.60	Many matters are regulated in detailed regulations but they are not always complied with
	Many ideas/inventions are generated but not all are implemented	5	4	4.17	Few ideas/inventions are generated but most of them are implemented
Long term orientation in organization	Actions taken are evaluated from the perspective of their effects in annual periods	3	4.5	4.40	Actions taken are evaluated from the perspective of their effects in many years' periods
	Relations with business partners are evaluated from the perspective of short-term profits	5	5	4.23	Relations with business partners are evaluated from the perspective of long-term profits
	Meeting the deadline for a task completion is more important than attaining an expected result	6	4	4.13	Attaining an expected result is more important than meeting the deadline for a task completion
	A fast, spectacular market or financial success is more important than the gradual building of a strong market position	x	5	4.33	Building of a strong market position gradually is more important than a fast, spectacular market or financial success
	Objectives of the managerial staff and employees diverge	6	5	4.45	Objectives of the managerial staff and employees converge

(x) – multimodal distribution

SOM3		Mo	Me	M	N=36
Power distance in organization	Subordinates and superiors are co-dependent	x	3	3.28	Subordinates are dependent on superiors
	Superiors consult their decisions with subordinates using their own experience and the experience of subordinates	3	3	3.19	Superiors make decisions without consultations with subordinates on the basis of the superiors' experience and formal regulations
	Occupying top positions does not entail substantially higher salaries and special privilege	2	2	3.22	Occupying top positions entails substantially higher salaries and special privilege
	Employees occupying lower positions perform different roles in the enterprise than employees on higher levels	3	3	3.86	Employees occupying lower positions have lesser abilities and skills than employees on higher levels
	Important decisions are made on different levels and do not require strict control in the course of their execution	2	3	3.36	Important decisions are made on top levels and require strict control in the course of their execution
Individualism in organization	Employees strive to act in the interest of the group they are part of	5	5	4.22	Employees strive to act in their own interest
	Decisions concerning employees' salary and promotion depend on their membership in a group and achievements of the group	3	3	3.92	Decisions concerning employees' salary and promotion depend on the regulations in force and their individual achievements
	Even if someone has a different opinion, she/he should adapt to the opinion of the collective	2	3.5	3.81	Everyone can have a different opinion and is expected to express it
	Interpersonal relations are more important than the execution of tasks	5	5	4.72	The execution of tasks is more important than interpersonal relations
	Relations between the employer and the employee resemble family ties	5	4	4.17	Relations between the employer and the employee are reduced to the employment contract
Uncertainty avoidance in organization	Change is more desirable than preservation of the current situation	3	3	3.56	Preservation of the current situation is more desirable than a change
	Innovative and creative employees have more freedom	5	5	4.44	Innovative and creative employees are limited by regulations
	Managers mainly focus on strategic issues and, to a lesser degree, on operational activities	6	5	4.50	Managers mainly focus on operational activities and, to a lesser degree, on strategic issues
	Few matters are regulated in detailed regulations and they are usually complied with	x	3.5	3.78	Many matters are regulated in detailed regulations but they are not always complied with
	Many ideas/inventions are generated but not all are implemented	x	4	4.36	Few ideas/inventions are generated but most of them are implemented
Long term orientation in organization	Actions taken are evaluated from the perspective of their effects in annual periods	6	6	5.11	Actions taken are evaluated from the perspective of their effects in many years' periods
	Relations with business partners are evaluated from the perspective of short-term profits	6	3.5	3.89	Relations with business partners are evaluated from the perspective of long-term profits
	Meeting the deadline for a task completion is more important than attaining an expected result	6	5	4.66	Attaining an expected result is more important than meeting the deadline for a task completion
	A fast, spectacular market or financial success is more important than the gradual building of a strong market position	5	5	4.67	Building of a strong market position gradually is more important than a fast, spectacular market or financial success
	Objectives of the managerial staff and employees diverge	5	5	4.76	Objectives of the managerial staff and employees converge

(x) – multimodal distribution

SOM4		Mo	Me	M	N=19
Power distance in organization	Subordinates and superiors are co-dependent	x	3.5	3.78	Subordinates are dependent on superiors
	Superiors consult their decisions with subordinates using their own experience and the experience of subordinates	2	4	4.00	Superiors make decisions without consultations with subordinates on the basis of the superiors' experience and formal regulations
	Occupying top positions does not entail substantially higher salaries and special privilege	x	3	3.47	Occupying top positions entails substantially higher salaries and special privilege
	Employees occupying lower positions perform different roles in the enterprise than employees on higher levels	5	4	3.68	Employees occupying lower positions have lesser abilities and skills than employees on higher levels
	Important decisions are made on different levels and do not require strict control in the course of their execution	2	4	4.16	Important decisions are made on top levels and require strict control in the course of their execution
Individualism in organization	Employees strive to act in the interest of the group they are part of	x	3	3.63	Employees strive to act in their own interest
	Decisions concerning employees' salary and promotion depend on their membership in a group and achievements of the group	6	5	4.37	Decisions concerning employees' salary and promotion depend on the regulations in force and their individual achievements
	Even if someone has a different opinion, she/he should adapt to the opinion of the collective	x	5	4.58	Everyone can have a different opinion and is expected to express it
	Interpersonal relations are more important than the execution of tasks	3	3	3.61	The execution of tasks is more important than interpersonal relations
	Relations between the employer and the employee resemble family ties	3	3	3.68	Relations between the employer and the employee are reduced to the employment contract
Uncertainty avoidance in organization	Change is more desirable than preservation of the current situation	3	4	3.68	Preservation of the current situation is more desirable than a change
	Innovative and creative employees have more freedom	6	5	4.58	Innovative and creative employees are limited by regulations
	Managers mainly focus on strategic issues and, to a lesser degree, on operational activities	5	5	4.68	Managers mainly focus on operational activities and, to a lesser degree, on strategic issues
	Few matters are regulated in detailed regulations and they are usually complied with	5	5	4.16	Many matters are regulated in detailed regulations but they are not always complied with
	Many ideas/inventions are generated but not all are implemented	x	5	4.53	Few ideas/inventions are generated but most of them are implemented
Long term orientation in organization	Actions taken are evaluated from the perspective of their effects in annual periods	6	5	4.68	Actions taken are evaluated from the perspective of their effects in many years' periods
	Relations with business partners are evaluated from the perspective of short-term profits	6	4	3.68	Relations with business partners are evaluated from the perspective of long-term profits
	Meeting the deadline for a task completion is more important than attaining an expected result	5	5	4,42	Attaining an expected result is more important than meeting the deadline for a task completion
	A fast, spectacular market or financial success is more important than the gradual building of a strong market position	5	5	3.79	Building of a strong market position gradually is more important than a fast, spectacular market or financial success
	Objectives of the managerial staff and employees diverge	5	5	4.05	Objectives of the managerial staff and employees converge

(x) – multimodal distribution

Source: own study.

Authors

The contribution of co-authors is 60% to 40%. M. Szymura-Tyc prepared the conceptual part of the paper together with literature review and conducted the preceding study referred in the study, while M. Kucia conducted the survey and prepared the statistical calculations.

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International Entrepreneurship Theory: Past, Present and Way Forward

Ikemefuna Allen

ABSTRACT

Objective: This paper recounts the historical development of International Entrepreneurship as a study field, and demonstrates how concepts brought forth contribute to a broader understanding of fundamental international business and entrepreneurship theories.

Research Design & Methods: The analytical work makes reference to the existing literature on International Entrepreneurship. Based on the categorisation of themes and sub-themes, the historical development of international entrepreneurship theory is recounted, creating a foundation for the assessment of its relationships and linkages with international business and entrepreneurship theories.

Findings: The findings indicate that International Entrepreneurship is still in a developmental stage. However, the field is rich with novel ideas and concepts that can give an impetus to researchers as they strive to explore themes such as international entrepreneurial orientation and entrepreneurial internationalization.

Implications & Recommendations: The lack of theoretical foundation presents challenges to researchers. Research must be directed at answering the fundamental questions that distinguish International Entrepreneurship from the two related, but more established fields; international business and entrepreneurship.

Contribution & Value Added: The paper provides a point of reference for scholars that want to attain a comprehensive insight into the state of international entrepreneurial research, and distinctions from, and relevance to the fields of international business and entrepreneurship.

Article type: conceptual article

Keywords: entrepreneurship; international entrepreneurship; international business; entrepreneurial internationalization; entrepreneurial orientation

JEL codes: L26, F23, M16

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INTRODUCTION

International entrepreneurship (IE) encompasses a new body of literature positioned at the interface of international business and entrepreneurship. Marked by novel and innovative activities that have the aim of creating value and growth in business organizations, IE is distinguished through elements of behavioural traits that drive entrepreneurial actions across-borders. Research in this new field has gained increased importance over the years, as unique ideas and concepts give an impetus to aspiring scholars.

To date, IE research examines the extent of entrepreneurship across national borders, evaluates national level patterns and cultural distinctions related to entrepreneurship, and compares entrepreneurial internationalization with focus on international venture types. When looking at entrepreneurial behaviour with a cross-border orientation, and international business distinguished by innovativeness, key questions arise for which answers can be derived through IE research.

This paper recounts the historical development of IE as a field of study, and demonstrates how its concepts help in answering fundamental questions of international business and entrepreneurship. Moreover, insight is provided for aspiring researchers interested in IE, as thematic areas for future exploratory research are discussed. The analytical work in this paper makes reference to the existing literature on IE, and uses Jones, Coviello and Tang (2011) categorization of themes and sub-themes to depict the historical development of IE, which creates a foundation for the analysis of how IE concepts relate to and link with fundamental international business and entrepreneurship theories.

The rest of the paper is structured as follows: The first section presents various definitions of the term international entrepreneurship with an analysis of the key aspects under consideration. The second section depicts the historical development of research conducted in the field and noteworthy results generated in the various thematic areas. Subsequently, concepts indicative of the IE framework are discussed with reference to their relationships and linkages with fundamental international business and entrepreneurship theories. The fourth section comprises of a summary of thought provoking areas for future research, after which the paper concludes.

MATERIAL AND METHODS

The goal of this paper was to recount the historical development of international entrepreneurship as a field of study, and demonstrates how concepts contribute to a broader understanding of international business and entrepreneurship theories. To this end, the analytical work makes reference to the existing literature on IE.

With the goal of providing a comprehensive overview on the past and present of IE research, the author strived to identify all relevant scientific journal on the subject, as well as pinpoint the articles most important for this research project. The literature search comprised thorough screening of two major academic databases, namely JSTOR and EBSCO Host. The search was limited to journal articles from peer review journals. With the exception of Schumpeter's work (1976), books, reports and conference papers were exempted from the literature search. In doing so, the author strived to ensure reli-

ability and currentness of the literature selected. In order to capture the entire score of IE research, key words used were derived from both the IE domain and the three other related areas; International Business, Entrepreneurship, and Strategic Management. Primary key words included (i) International Entrepreneurship, (ii) International Entrepreneurship Theory, (iii) International Entrepreneurial Orientation, (iv) Entrepreneurship, (v) Internationalization Strategy, (vi) International business. Recurrence of key words created the basis upon which available sources were included or omitted. In a second step, the author screened the abstracts of the selected journal articles and derived a pool of titles that were reviewed, validated, and if applicable used for this work. The method applied is derived from the approach established by Jones, Coviello and Tang (2011) of:

- creating a protocol for the comprehensive literature search,
- creating a protocol for thematic analysis,
- conducting further screening of the selected articles to determine whether their content fall into the scope of the study.

Thorough screening of the current literature created the foundation, upon which suggested topics for future IE research were critiqued and additional focal points presented for further exploratory work. Jones, Coviello and Tang (2011) categorisation of themes and sub-themes created the basis upon which the historical development of IE is depicting, creating a foundation for the analysis of how IE concepts relate to and link with fundamental international business and entrepreneurship theories.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Defining International Entrepreneurship

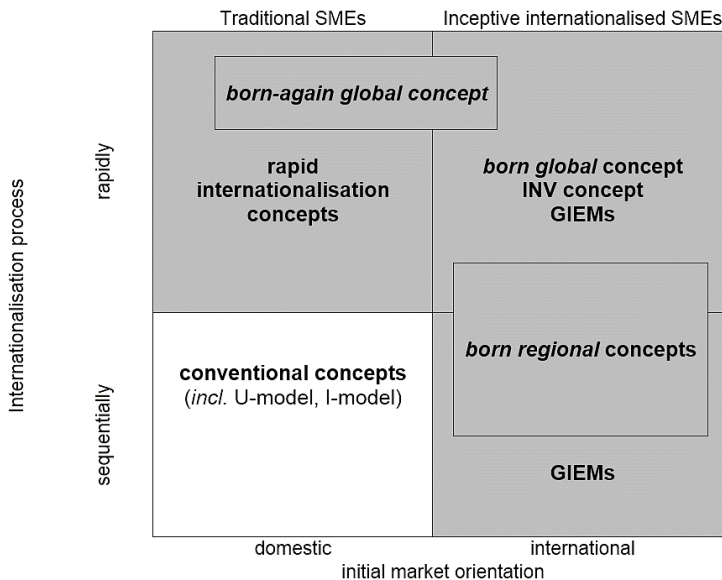
The term international entrepreneurship found its roots when Morrow (1988) suggested that technological advances and cultural awareness allowed new ventures to access untapped foreign markets (quoted in McDougall & Oviatt, 2003, p. 3). Although a generally accepted definition remains elusive, the current literature affords well-founded descriptions that provide valuable insight on the key areas of focus. McDougall and Oviatt (1997) offer a definition covering the aspect of comparative entrepreneurship, and the impacts of entrepreneurial actions on business. According to the scholars, IE comprise novel and innovative activities that crosses or is compared across national borders with the aim of creating value and growth in business organizations. This definition was later extended to incorporate elements of behavioural traits, which drive entrepreneurial actions, as well as put emphasis on the cross-border orientation of entrepreneurial business activities (McDougall & Oviatt, 2000, p. 903). More comprehensively, IE refers to innovative activities pursued by a firm across-borders. In this definition the term 'innovative' encompasses the value-seeking component, as firms leave their home country to seek out new opportunities in unknown or unexplored markets.

Oviatt and McDougall (2005) refined their definition to include the acts of discovering, enacting, evaluating, and exploiting opportunity abroad. With this, a process centric view on international entrepreneurship is given as the scholars present the core activities executed when value-seeking behaviour is geared towards foreign markets. Discovering in this sense implies obtaining insight or knowledge of a business opportunity for the first

time; while enacting refers to the practice of performing or acting out business activities across-borders. Entrepreneurs have the instinct to spot promising opportunity abroad and with a distinct skill, initiate entry into foreign markets. Evaluation comprises weighing, estimating, gauging, and valuing opportunity, which leads the entrepreneur to exploit it in the international sphere.

Some scholars believe that international entrepreneurship is at the crossroads of three academic disciplines, namely entrepreneurship, international business and strategic management (Wach & Whermann, 2014; Wach, 2015a). Although related to IE, international business differs in that the focus lies on internationalization theory, transaction cost theory, and economic factors leading to internationalization. The contrast between IE and entrepreneurship become evident when considering that the latter focuses on the entrepreneur’s role as an economic agent, who recognises and exploits opportunity. Strategic management covers assets, capabilities, and business strategy employed when doing business abroad, and in this regard, deviates from the scope of IE (Wach, 2015a, p. 12).

IE is said to be based on four concepts, namely (i) international new ventures; (ii) born globals (iii) rapid internationalization, and (iv) general models of international entrepreneurship. This grouping distinguishes the degree and form of a firm’s IE activities. Global firms are those that conduct business in at least three regions of the world with an intent to expand further. In contrast, international new ventures refer to those firms that internationalized quickly as a means capitalising on opportunity (Crick, 2009, p. 457). The illustration below (Figure 1) presents a comprehensive view on three generic concepts of IE, considering the speed of internationalization (sequentially vs. rapidly), and the initial geographic market orientation (domestic vs. international) of firms.



Note: Areas of international entrepreneurship studies are marked in grey colour.

Figure 1. Basic typology of IE concepts

Source: Wach (2014, p. 68).

Defining international entrepreneurship represents the first step in comprehending this new field of study. Doing so provides researchers a vital tool when attempting to distinguish IE from other well-established areas such as entrepreneurship and international business. When looking at entrepreneurial behaviour with a cross-border orientation, and international business distinguished by innovativeness, key questions arise for which answers can be derived through IE research.

Historical Development of International Entrepreneurship Research

The past two decades (1990s and 2000s) have witnessed substantial development in IE research. Jones *et al.* (2011) provide a well-founded categorisation by mapping out three major types of research, namely: (i) entrepreneurial internationalization, (ii) international comparisons of entrepreneurship, and (iii) comparative internationalization. These streams represent the central elements from which exploratory research has been conducted to investigate various thematic areas of entrepreneurship within the international sphere. The ensuing illustration (Figure 2) depicts the main themes and sub-themes of international entrepreneurship research.

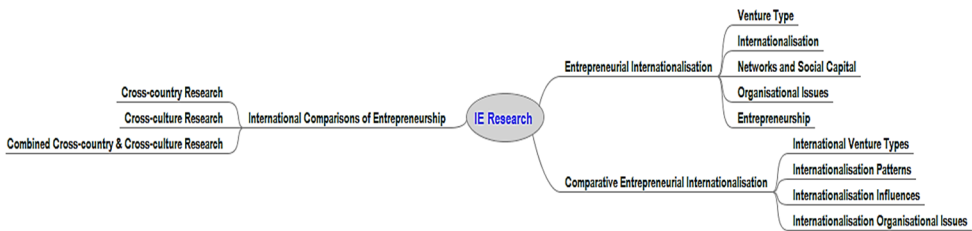


Figure 2. Thematic areas of international entrepreneurship research

Source: adapted from (Jones, Coviello & Tang, 2011, p. 636).

From 1989 to 1996 the research area labelled entrepreneurial internationalization emerged. It deals with entrepreneurship that crosses national borders; incorporating aspects of venture type, internationalization, networks and social capital, organizational issues, and entrepreneurship (Jones *et al.*, 2011, p. 635). A vital element in this sense is explaining why, how, and through what means (capabilities) organizations become engaged in cross-border business. Venture type explores the characteristics of an organization that enables it to compete internationally (Jones *et al.*, 2011, p. 636), while internationalization examines the patterns and processes of international expansion, and diversity of firm’s mode of entry, as well as the influences and outcomes of internationalization (Jones *et al.*, 2011, p. 638). Networks and social capital focus on how the firm’s network ties influence foreign market entry and entry modes, while research covering organizational issues and entrepreneurship incorporate studies on organizational performance, orientation, knowledge and capabilities from an entrepreneurial internationalization perspective, and international corporate entrepreneurship (Jones *et al.*, 2011, p. 640).

Research on entrepreneurial internationalization have shown positive relationships between international entrepreneurial orientation and several indicators of international performance, such as the extent to which a business organization actively seeks oppor-

tunity, and sells its products or services, in foreign markets (Covin & Miller, 2014, p. 19). This can imply that the zeal to engage in cross-border business is driven by the international entrepreneurial spirit.

Between 1990 and 2002 another research area dubbed international comparisons of entrepreneurship developed, which involves comparing data collected from different countries, with the goal of evaluating national level patterns and related cultural distinctions (Jones *et al.*, 2011, p. 644). Against this backdrop, researchers base their work on the thematic areas; cross-country research, cross-cultural research, and combined cross-country & cross-culture research. As can be derived from the terms, research conducted focus on behavioural differences of entrepreneurs across countries, and the assessment of cultural values to determine the impact culture has on entrepreneurial behaviour (Jones *et al.*, 2011, p. 645). Results generated in this stream have established the influential effect national culture has on individual entrepreneurial behaviour (Hayton, George & Zahra, 2002, p. 43).

Comparative internationalization is the most recent research area of international entrepreneurship. Since 2001, scholars have used cross-national data in comparing entrepreneurial internationalization. Related topics include international venture types, internationalization patterns, internationalization influences, and organization issues (Jones *et al.*, 2011, p. 646). In this vein, internationalization patterns at a firm's inception can be influenced by the global vision of the founder, the entrepreneur (Gabrielsson & Pelkonen, 2008, p. 56). Depending on the country of origin and related national culture distinctions, the entrepreneur who is the driving force of the organization at its inception, gravitates more towards the discovery, enactment, evaluation, and exploitation of business opportunity abroad. Clearly stated: internationalization patterns may depend on country of origin and national culture of the founding entrepreneur. Further findings derived from comparative internationalization research suggest that the entrepreneurial team, along with the entrepreneur, are relevant in fostering the cross-border orientation of business organizations (Andersson & Evangelista, 2006, p. 650). Reports have indicated that international entrepreneurial orientation (IEO) is a vital cultural attribute of so-called born global firms (Knight & Cavusgil, 2004, p. 129), however other researchers believe that IEO is an immanent element of international entrepreneurship theory in general (Wach, 2015b). Taken together, international entrepreneurial orientation is considered a behavioural trait shared by business entities that start out seeking to attain a competitive advantage by carrying out operations in various countries.

The historical development of IE research was presented in brief. The existing literature can be sorted in three categories namely, entrepreneurial internationalization, international comparisons of entrepreneurship, and comparative internationalization. The major aspects considered include examining the extent of entrepreneurship across national borders, evaluating national level patterns and cultural distinctions related to entrepreneurship, and comparing entrepreneurial internationalization with focus on international venture types. Research conducted to date provides evidence of positive relationships between international entrepreneurial orientation and international performance. Scholars have also argued that international entrepreneurial orientation is an essential cultural attribute of born global companies. Within business organizations, the

entrepreneurial team, along with the entrepreneur, have been cited as crucial parties in fostering international entrepreneurial activities.

Entrepreneurship as New Approach Towards International Business

IE is an intriguing field at the intersection of entrepreneurship and international business theories (Keupp & Gassmann, 2009, p. 600), and some scholars also add international management (Wach & Whermann, 2014). To demonstrate this, I revert to fundamental theories from two of the fields. Cantillon's theory of entrepreneurship positions the entrepreneur as an individual, who drives the manufacturing, circulation, and exchange of products within an economy, in an effort to satisfy consumer demands. Against this backdrop, entrepreneurial actions are based on perceived arbitrage opportunities; the hope for profit generation (Cantillon, 1931, p. 151; Brown & Thornton, 2013, p. 406). Bear in mind that perception of opportunity can differ depending on the knowledge of markets and/or the zeal to consider unknown or unexplored markets. Any theoretical assertion on the role of entrepreneurs, and the basis for entrepreneurial action, must implicate the cross-border element of perceiving opportunity. Nowinski and Bakinowska (2012) provided evidence as they identified arbitrage price opportunities as a vital driver of early internationalization of Small and Medium-sized Enterprises. Entrepreneurs may act on their knowledge of markets, and/or is driven by the willingness to explore unknown or unexplored markets. Such considerations are clearly in the realm on international entrepreneurship. In this context, IE research has shown that entrepreneurs in CEE economies can experience social and human capital constraints, since they lack international experience (Nowinski & Rialp, 2013, p. 221).

Assertions made by Schumpeter (1976) in his theory of economic growth offer another avenue to associate IE with traditional entrepreneurship theory. In his work, Schumpeter credits the growth of an economy to entrepreneurial innovations, as competition between market participants foster the desire to derive new means of improving technology and business operations. Note here that competition between market forces is stated as the trigger of entrepreneurial innovation. In today's global economy, market forces, and related impacts, extend beyond national borders. The trigger of entrepreneurial action therefore can result from foreign market developments and opportunities. Given this, an attempt to explain why entrepreneurial action is taken must implicate the cross-border element of business. This again falls under the umbrella of IE.

In an effort to depict the relationship and linkage between international business theories and concepts from IE, the author draws upon assertions rooted in 'the theory of the firm'. With the goal of maximising profits for their business organization, decision-makers assess opportunity costs of engaging in business across-borders (Grosse & Behrman, 1992, p. 99). The rationale for taking a decision on whether or not to enter a foreign market may be founded on behavioural traits of decision makers. When such actions involve discovering, enacting, evaluating, and exploiting business opportunity abroad; the international entrepreneurial orientation of the decision maker merits consideration. Knight (2001) suggests that three-dimensional international entrepreneurship is a vital success factor impacting international performance of firms, while Wach (2015a) stresses that the entrepreneurial decision making process is the most important factor in the entrepreneurial process.

Future Direction of International Entrepreneurship Research

Research on international entrepreneurial behaviour has gained increased importance over the years. In spite of the growing interest, IE as a field of study is still in a developmental stage, without solid theoretical foundation. Researchers have identified theoretical inconsistencies, opposing predictions and knowledge gaps (Keupp & Gassmann, 2009, p. 600), which hinder further development. Be it as it may, the field is rich with novel ideas and concepts that can give an impetus to researchers as they strive to investigate the drivers of entrepreneurial behaviour with a cross-border orientation, and other related interdependencies.

A thought provoking area for future research deals with new international market entry, as this is inherent and vital to the exhibition of international entrepreneurial behaviour (Covin & Miller, 2014, p. 27). In this sense, the key question to be posed here is whether behavioural traits exhibited for new international market entry correspond with those shown for new product entry. The challenge of such research lies in trying to characterise and capture the entrepreneurial process elements within the context of new international entry, and in this way demonstrate the distinctive nature of 'being entrepreneurial' in the international new entry frame of reference (Covin & Miller, 2014, p. 28). Another promising area for future work pertains to the previously discussed stream of research called international comparisons of entrepreneurship. Covin and Miller (2014) suggest exploring the drivers of new entry as culture specific phenomena. This can incorporate exploratory research that aims at distinguishing the act of being entrepreneurial in different cultural contexts, through examining the beliefs, preferences, and behaviours leading to new entry (Covin & Miller, 2014, p. 28).

Jones and Coviello (2005) recommend exploring how cognitive approaches may distinguish entrepreneurial internationalization from other traditional forms of internationalization patterns. In this regard, heuristic and analogical reasoning are two key cognitive approaches under consideration. Heuristic reasoning refers to a mental shortcut allowing decision making quickly and efficiently (Gigerenzer & Gaissmaier, 2011, p. 454), while analogical reasoning implies decision-making based on experiences from a similar situation (Gentner, 2003, p. 106). The premise for such research is that heuristic reasoning and analogical reasoning can serve as theoretical basis upon which innovative, proactive, and risk-seeking behaviour distinguishes entrepreneurial internationalization from other forms of internationalization (Jones & Casulli, 2013, p. 62). The process of analysing a business opportunity can uncover key differences and similarities that alert entrepreneurs to opportunities and challenges; requiring consideration in new international undertakings (Jones & Casulli, 2013, p. 62). Taken together, heuristic reasoning will drive entries into countries that are perceived as similar to those where business activities have been conducted, and analogical reasoning will fuel entrepreneurial internationalization based on familiarity and extensive experience of an industry or market (Jones & Casulli, 2013, p. 60).

Aspects to be considered when applying a cognitive approaches to IE include; the decision making process leading to entry into a foreign market, and the mode of entry employed. Relevant considerations are factors that influence the decision maker, such as behavioural traits. Taking this further, researchers can evaluate potential cultural associ-

ations that impact reasoning and in this way demonstrate the interplay between culture, decision-making, and entrepreneurial internationalization.

CONCLUSIONS

This paper was prepared with the goal of recounting the historical development of IE as a field of study, and demonstrating how concepts brought forth contribute to a broader understanding of fundamental international business and entrepreneurship theories. The analytical work makes reference to the existing IE literature, as Jones, Coviello and Tang (2011) categorisation of themes and sub-themes provided the foundation for depicting the historical development. On this basis, an assessment of how concepts from IE associate with fundamental international business and entrepreneurship theories was conducted.

The main themes of IE research include Entrepreneurial Internationalization, International comparisons of Entrepreneurship, and Comparative Internationalization. Key aspects considered are; examining the extent of entrepreneurship across national borders, evaluating national level patterns of entrepreneurship and their relationships with cultural and institutional differences, and comparing entrepreneurial internationalization with focus on international venture types. IE research provides evidence of positive relationships between international entrepreneurial orientation and international performance, and establishes the influential effect national culture has on individual entrepreneurial behaviour. Entrepreneurship theory stresses that entrepreneurial actions are based on perceived opportunities. Since perception of opportunity can differ depending on the knowledge of markets and/or the zeal to consider unknown or unexplored markets. Any theoretical assertion on the role of the entrepreneur, and the basis for entrepreneurial action, must implicate the cross-border element of perceiving opportunity. Moreover, the trigger of entrepreneurial action can result from foreign market developments and opportunities. These considerations are in the realm on IE.

There are several limitations to the results of this study. First, the analytical work is based on the categorization provided by Based on Jones, Coviello and Tang (2011). Using categorisations from other scholars may offer a different view on how IE has developed over the years. Second, the study is based on a literature review with no field research or data analysis conducted. More comprehensive research and analysis are required that take into account entrepreneurial behaviour of firm overtime.

Future research should be directed at distinguishing the act of 'being entrepreneurial' in different cultural contexts, through examining the beliefs, preferences, and behaviours leading to new entry. Studies applying cognitive approaches into IE research can include the decision making process, through which a selected foreign market is entered, and the mode of entry employed. Researchers may evaluate potential cultural associations impacting reasoning, and in doing so, manifest the interplay between culture, decision-making, and entrepreneurial internationalization.

The literature review in this study points to the fact that IE is still in a developmental stage. However, the field is rich with novel ideas and concepts. The lack of theoretical foundation presents challenges to researchers. Research must be directed at answering the fundamental questions that distinguish IE from the two related, but more established fields; international business and entrepreneurship. In this way, theories distinc-

tive to IE can be developed that highlight the influencers, motives, and impacts of entrepreneurial behaviour across borders.

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Youth Entrepreneurship in Visegrad Countries

Marian Holienka, Anna Pilková, Zuzana Jančovičová

ABSTRACT

Objective: The aim of our paper is to analyse the entrepreneurial activity drivers of youth and young adults in Visegrad countries, considering the opportunity/necessity motivation dichotomy.

Research Design & Methods: We employ the Global Entrepreneurship Monitor data for young individuals (18 to 34 years) from V4 countries for years 2011 to 2013. We use the binomial logistic regression modelling with logit transformation. Separate models are constructed for youth and young adults, as well as for opportunity- and necessity-driven entrepreneurial activity.

Findings: We found common drivers and distinctive attributes affecting involvement of young people in business start-up according to its motivation. Self-confidence and access to networks are universally important factors. In most examined cases, fear of failure and being a female reduces chance of business start-up. Especially among youth, being a student significantly inhibits involvement in enterprising efforts.

Implications & Recommendations: In order to support youth entrepreneurship, emphasis should be put on education and training to build skills and knowledge required for business start-ups, together with capacity to spot opportunities, and reduce fear of failure. Formal and informal networking plays an important role in youth entrepreneurship.

Contribution & Value Added: Based on empirical analysis, our findings point out the key drivers of entrepreneurial activity among young people in V4 countries. We show directions for policy makers aiming to foster entrepreneurship within young generation as both way to exploit available business opportunities, as well as reaction to necessity situations.

Article type: research paper

Keywords: entrepreneurship; Visegrad countries (V4); youth; opportunity; necessity; drivers

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INTRODUCTION

The issue of youth entrepreneurship is, from the macroeconomic perspective, aimed mainly on economic and societal dimensions of this phenomenon (Holiienka, 2014). Entrepreneurship is perceived as one of the potential solutions to youth unemployment, which has become a particularly hot topic throughout entire Europe. Its solution lies not only in self-employment, but also in potential for creation of other jobs. Especially regarding young individuals, the issue has also other important dimension. It is the age group in the beginning or in early stages of economic activity. If they decide for entrepreneurship as their career choice, they will hopefully become economically self-sufficient and will create their own jobs instead of looking for them, and potentially also create jobs for other people. Thus, such decision in early phases of economic activity is a good assumption (however, not a matter of course) that individuals will follow the self-sufficiency during the entire economic active age and contribute to the development of quantity as well as qualitative side of entrepreneurial activity in an economy.

Moreover, youth entrepreneurship is a highly important phenomenon also in the context of current development of economies. The immense growth of innovation brings trends such as constant dynamics and instability, rapid changes or increased cognitive complexity (Integral Assets Consulting, 2006). These lead to changing nature of labour, and to need for application of enterprising attributes not only for profit businesses, but also in the role of employee or in many other different social roles. Formation of such skills is therefore not only the way towards development of independent, profit-oriented entrepreneurship. On contrary, its role is to support creativity, innovativeness and ability to identify opportunities and bring ideas into life, thus equipping young people with “enterprising mindset” that can be utilized in many different activities.

To foster their involvement in entrepreneurship, policy makers need to understand the factors leading young individuals towards enterprising efforts. Former research has shown that, in relation to entrepreneurship, young people and mature people are different in several areas, including accumulation of resources and skills; psychological, cognitive and motivational attributes; and reaction to influences from the environment, culture and norms (Minola, Criaco & Cassia, 2014). However, generalising the drivers of youth entrepreneurship may be too oversimplifying. With this respect, at macro level, we need to consider at least two other dimensions – age cohorts and motivation. It is clear that the group referred to as young individuals is rather large and heterogeneous. One perspective on this divergence considers whether an individual is already economically active or still in the phase of preparation for future occupation. These two stages are substantially diverse, which implies their difference in relation to entrepreneurship. Regarding motivation, entrepreneurial activities may arise from wide variety of different motives. Generally, these motives can be well classified into two main categories – opportunity and necessity. By definition, these two types refer to different underlying life situations that may reflect potential drivers of business start-up in different way. Without specific preference to any of them, it is important to understand mechanism behind both these types of entrepreneurship.

The aim of our paper is to analyse the entrepreneurial activity drivers of youth and young adults in Visegrad countries, considering the opportunity/necessity motivation

dichotomy. To do so, we employ the Global Entrepreneurship Monitor 2011 to 2013 individual-level data in a pooled sample from V4 countries and perform a binomial logistic regression analysis in search for drivers significantly affecting individual involvement of youth and young adults in early-stage entrepreneurial activity out of opportunity and necessity.

The structure of our paper is standard. In the following section we provide a review of literature on youth entrepreneurship, its drivers, as well as nature and role of necessity and opportunity motivation to start a business. Section 3 describes the materials and methods employed in our analysis, while Section 4 presents and discusses its results and main findings.

LITERATURE REVIEW

What Does It Mean “Youth” in Entrepreneurship Context?

The first question that needs to be clarified when dealing with youth entrepreneurship is the definition of “youth”. In fact, there is no universal definition of youth neither generally nor in this specific context. For example, United Nations understands youth as individuals in the age of 15 to 24, but it also accepts the existence of definitions used by other countries of entities (United Nations, 2014). One of such is the definition used in the EU, where Eurostat considers youth as individuals in the age of 15 to 29 years (European Commission, 2009).

Especially in relation to entrepreneurship, Chigunta (2002) introduced definition and classification of youth entrepreneurship from qualitative perspective through “transitional categorization” based on structural differences between entrepreneurial activities of young people in different age. It recognizes three main phases of youth entrepreneurship. It also stresses that the transitional process is not necessarily linear, and the age categorization is not strict either, because the transfer between phases may differ in particular economies or industries. The first “pre-entrepreneurship” phase (15 to 19 years) represents a forming phase or some trial period. Young people usually find themselves in this phase during the transfer from “family nest” or educational process to the position of economically active individuals. The second “budding entrepreneurship” phase (20 to 25 years) reflects a growth phase in which young individuals can already possess certain experience, skills or capital, enabling them to run their own business activities. Finally, the third phase of “emergent entrepreneurship” (26 to 29 years) is the main phase where young entrepreneurs are, thanks to experience acquired (not only) in entrepreneurship, more mature than younger individuals, thus increasing the chance that they can successfully manage a vital business activity.

However, for the purpose of our analysis based on GEM data, we need to follow clearly defined age criteria. Thus, we incline to the GEM perspective, where youth entrepreneurship includes individuals in the age from 18 to 34 years (Kew, Herrington, Litovsky & Gale, 2013). Due to heterogeneity in such broad category, we further distinguish between the youth (18 to 24) and young adults (25 to 34), which also corresponds with the GEM perspective (Pilková, Holienka, Kovačicová & Reháč, 2014). This distinction reflects the specifics of these two groups and their position in an economy. Youth usually find themselves at the doorstep of economic activity. There, some individuals still remain

in the process of preparation for their occupation, while the others are fully involved among either workforce or self-employed, or they attempt to include into economically active life. On contrary, among young adults, the preparation to occupation has usually been completed, and an active participation in the economic activity within the society is anticipated.

Drivers of Youth Entrepreneurship

The research on youth entrepreneurship is mainly focused on factors influencing the entrepreneurial activity, both in its quantity as well as quality (Pilková *et al.*, 2014). The most frequently studied drivers of individual involvement in entrepreneurial activity are the individual entrepreneurship-related attributes, social capital and perception of societal attitudes, and individual demographic characteristics. Since former research indicates rather general validity than age-specific nature of these drivers, we will consider the full scope of these potential factors in our analysis.

Individual demographic characteristics studied for their influence on taking the entrepreneurial path are mainly gender, educational attainment and household income. Gender studies suggest that the entrepreneurial propensity of men and women may be influenced by differences attributed to gender-specific characteristics (Langowitz & Minniti, 2007). Most empirical studies found that, despite considerable recent growth in their inclusion, women still tend to be underrepresented in entrepreneur population (Davis, 2012; Bjerke, 2013). The assumptions about effect of educational attainment is related to the concept of human capital, representing a knowledge base determining the individual's capacity to recognize and pursue entrepreneurial opportunities (Ramos-Rodríguez, Medina-Garrido, Lorenzo-Gómez & Ruiz-Navarro, 2010). Previous empirical research proved human capital, partially operationalized through educational attainment, to be positively related to nascent entrepreneurship (Kim, Aldrich & Keister, 2006). Finally, the role of household income can be viewed through the financial resources perspective, especially with the opportunity costs of reducing this income. According to Kim *et al.* (2006), at lower income levels, individuals may consider the opportunity costs of starting business very low, while at higher income levels, individuals may perceive that the loss of their current income outweighs prospective (and still uncertain) gains from a new business (Kim *et al.*, 2006), thus abstaining from business start-up.

The most commonly investigated individual attributes related to the involvement in entrepreneurial activity are alertness to business opportunities, entrepreneurial self-confidence, and fear of failure. Alertness to business opportunities is related to individual subjective perception of good opportunities for starting up and running an enterprise. According to Kirzner (1979), such alertness is a key perceptual characteristic of entrepreneurial behaviour and a necessary precondition for entrepreneurial action. It has been proven as an important driver of engagement in enterprising efforts (Arenius & Minniti, 2005; Koellinger, Minniti & Schaded, 2007). Entrepreneurial self-confidence relates to the concept of self-efficacy, that represents one's judgement of own ability to execute an action and produce designated levels of performance (Bandura, 1994). Thus, it has been established as a reliable predictor of different goal-directed behaviours, including entrepreneurship. Self-efficacy is strongly related to perceived behavioural control and ability, which together with attitude toward behaviour and subjective norm influence the intention, that in turn affects the actual behaviour of an individual (Ajzen, 1991). In case of

entrepreneurship, the context-specific self-efficacy represents the self-confidence of an individual in having the required skills, experience and abilities to successfully start-up and run a business. Previous empirical studies have proven the positive relationship between high levels of self-efficacy and individual entrepreneurial activity (Arenius & Minniti, 2005; Lukeš, Zouhar, Jakl & Očko, 2013; Wong & Lee, 2005). Fear of failure represents a subjective perception regarding the risk of entrepreneurial failure and its possible consequences. Since the majority of individuals are supposed to be risk-averse by nature, increased fear of failure is expected to act as an inhibitor of entrepreneurial action (Arenius & Minniti, 2005). Empirical research has provided certain evidence supporting these assumptions considering entrepreneurial activity (Arenius & Minniti, 2005; Lukeš *et al.*, 2013; Wagner, 2007).

Social capital generally refers to social networks of an individual that enable to extract benefits from these social structures, networks and memberships through the social exchange (Portes, 1998). It represents an external knowledge provided by other people in the entrepreneur's environment (Ramos-Rodríguez *et al.*, 2010), which foster the discovery of opportunities, their exploitation as well as the identification, collection and allocation of scarce resources (Davidsson & Honig, 2003). One of the most relevant sources of social capital for early-stage entrepreneurs are other individuals with recent business start-up experience. Empirical research has already identified positive impact of knowing an entrepreneur on involvement in entrepreneurship (Lukeš *et al.*, 2013).

Perception of societal attitudes towards entrepreneurship represents an individual perception of social norms, values, beliefs and assumptions socially carried by individuals within the society and influencing their behaviour. In other words, we speak about institutions (North, 1990). They shape the entrepreneurial activity of individuals who try to adjust their actions to achieve conformity in the environment shaped by these institutions. One of them is the status of successful entrepreneurs in a society. If an individual believes successful entrepreneurs enjoy high levels of social status and respect, he will be generally more likely to find entrepreneurial activity desirable. He would perceive that by joining an entrepreneurial path he would achieve legitimacy by conforming to norms and values within society (Lonsbury & Glynn, 2001).

Opportunity and Necessity Motives and Entrepreneurship Drivers

There is a wide range of different motives behind the decision to start a business. Simply, within the GEM perspective, they are divided into the two main categories – opportunity and necessity motives (Reynolds, Camp, Bygrave, Autio & Hay, 2001). The question is, how these motives moderate the generally expected relationship between the above described factors and individual involvement in entrepreneurial activity. Verheul, Thurik, Hessels and van der Zwan (2010) argue that distinction between opportunity and necessity entrepreneurs is important for several reasons, one of them being the difference between determinants of opportunity and necessity entrepreneurship. In this respect, former empirical research provided some evidence, but it is rather ambiguous. For example, there are no consistent findings on effects of age or educational level (Bergmann & Sternberg, 2007; Giacomini, Janssen, Guyot & Lohest, 2011; Verheul *et al.*, 2010; Wagner, 2005). Also, while Giacomini *et al.* (2011) identified negative effect of having entrepreneurial relatives on necessity entrepreneurship, Verheul *et al.* (2010) and Wagner (2005) found positive effect of role models on opportunity entrepreneurs, and Morales-

Gualdrón and Roig (2005) found positive influence of knowing an entrepreneur on both types. Finally, both Wagner (2005) and Morales-Gualdrón and Roig (2005) found fear of failure acting as inhibitor of necessity as well as opportunity entrepreneurial efforts, while Verheul *et al.* (2010) found no significant effect of this attribute at all.

MATERIAL AND METHODS

Data and Variables

The aim of our paper is to analyse the entrepreneurial activity drivers of youth and young adults in V4 countries, considering the opportunity/necessity motivation dichotomy.

Our analysis is based on Global Entrepreneurship Monitor (GEM) data. GEM is the largest academic study dealing with entrepreneurship in the world that annually monitors entrepreneurial attributes and activities (Singer, Amorós & Arreola, 2015). It uses two main primary data collection instruments – Adult Population Survey (APS) and National Expert Survey (NES). The APS is annually executed in all participating countries and collects individual-level data through a standardized survey instrument administered to representative samples from adult populations (18 to 64 years old). Due to its focus on individuals, representativeness by age and gender on country level, and specific focus on entrepreneurial activity and entrepreneurship-related attributes of individuals, GEM APS data are the most appropriate material to be used in our analysis.

We created a pooled sample using GEM APS individual level data for V4 countries from three consecutive years 2011 to 2013, with age of respondents between 18 to 34 years as the only selection criterion. This resulted to a sample of 9 290 young individuals: 2 473 (26.6%) from Czech Republic, 2 114 (22.8%) from Hungary, 2 388 (25.7%) from Slovakia and 2 315 (24.9%) from Poland. This sample contained 313 youth (18 to 24) early-stage entrepreneurs (out of them 231 opportunity-driven and 81 necessity-driven) and 781 young adult early-stage entrepreneurs (out of them 548 running their businesses based on opportunity, and 218 out of necessity). The main sample was further divided into four subsamples – two for analysing the opportunity-driven entrepreneurship (containing non-entrepreneurs and entrepreneurs out of opportunity) among youth and young adults, and other two for the analysis of necessity-driven activity (comprising of non-entrepreneurs and entrepreneurs starting out of necessity) among youth and young adult population.

We employed standard GEM variables in our analysis. The dependent variables indicated involvement of respondents in opportunity- or necessity-driven early-stage entrepreneurial activity. In GEM, total early-stage entrepreneurial activity (TEA) includes individuals actively involved in setting up a business (nascent entrepreneurs) or owning-managing new firms that are less than 3.5 years old (new entrepreneurs). TEA individuals are further classified according to the reported dominant reason for involvement in business start-up. Those who indicated having no better choices for work are considered as necessity-driven entrepreneurs, while those whose reason was mainly/partially to take advantage of business opportunity, or who were seeking for better opportunities than in their recent jobs, are classified as opportunity-based entrepreneurs.

The explanatory variables employed in our analysis include the following: (1) entrepreneurial self-confidence (belief in having knowledge, skill and experience required to

start a new business; yes=1, no=0), (2) alertness to opportunities (belief in good opportunities for starting a business in the area where respondent lives in the close future; yes=1, no=0), (3) fear of failure (having a fear of failure that would prevent respondent from starting a new business; yes=1, no=0), (4) knowing an entrepreneur (knowing personally someone who started a business in recent two years; yes=1, no=0), (5) perceived status of new entrepreneurs (indicated agreement with statement that in respondent's country, successful new entrepreneurs possess high levels of status and respect; yes=1, no=0), (6) gender (male=1, female=2), (7) education (highest educational attainment), (8) student ("student" indicated as employment status; yes=1, no=0), and (9) household income (total annual household income classified into lowest/middle/upper 33%-tile for each country). Finally, we also included age and proxies for country and year of survey as control variables.

Hypotheses

We propose the following hypotheses on entrepreneurial activity drivers among youth and young adults in V4 countries, considering the opportunity/necessity motivation dichotomy:

- H1:** Entrepreneurial self-confidence is positively related to involvement in both types of entrepreneurship.
- H2:** Alertness to opportunities is positively related with opportunity entrepreneurship, while it has no significant relation with necessity entrepreneurship.
- H3:** Fear of failure is negatively related to involvement in both types of entrepreneurship.
- H4:** Knowing an entrepreneur is positively related to involvement in both types of entrepreneurship.
- H5:** Perceiving high social status of successful new entrepreneurs is positively related to involvement in both types of entrepreneurship.
- H6:** Involvement in both opportunity and necessity entrepreneurship is domain of men, i.e. gender is significantly related to involvement in both types of entrepreneurship.
- H7:** Educational attainment is positively related to involvement in both types of entrepreneurship.
- H8:** Student status is negatively related to involvement in both types of entrepreneurship.
- H9:** Household income is negatively related to involvement in both types of entrepreneurship.

Methods

To identify the drivers of involvement in either opportunity- or necessity-based early-stage entrepreneurial activity among youth and young adults we used a binomial logistic regression modelling. This model estimates the probability of an event happening. In our case this event was owning-managing a business activity based on necessity or opportunity by youth or young adult individuals. Thus, we conducted four regression models

with two different dependent variables (opportunity-driven and necessity-driven early-stage entrepreneurial activity) for each both age categories. To estimate the parameters of each model we used statistical software R, namely its build-in function for Generalized Linear Models (GLM) which was set on binomial family with logit transformation. The significance of parameters was tested using Wald z-statistics. Maximum likelihood estimations were used to calculate the logit coefficients denoting changes in the log odds of the dependent variable. Correlations between independent variables were tested and proved not to be problematic. The selections of final models were conducted through a stepwise regression function `drop1` using Chi-square goodness of fit test, log-likelihood ratio function and Akaike Information Criterion. The selected final models were then compared to the real observation using Hosmer and Lemeshow goodness of fit (GOF) test, which indicated that the models are well fitted.

RESULTS AND DISCUSSION

Drivers of Opportunity-based Entrepreneurship

The results of binomial logistic regression conducted to identify the drivers of opportunity-based early-stage entrepreneurial activity among youth and young adult population suggest that nine out of twelve analysed variables are significant (Table 1). Interestingly, except of only two out of the variables that proved significance, all remaining variables were significant in case of both youth as well as young adults.

The estimated coefficients in Table 1 describe the effect of a variable on the odds of engagement in opportunity-driven entrepreneurial activity relative to not being involved in early-stage business at all. If the coefficient value is positive, holding all other variables equal, an increase in a variable raises the likelihood of involvement in business out of opportunity. Therefore, as can be seen from the results, the odds of getting engaged in opportunity-driven early-stage entrepreneurial activity among both youth and young adults are positively related to self-confidence about having entrepreneurial skills (with the highest coefficient value in both models), alertness to good business opportunities, knowing an entrepreneur with recent start-up experience and income level (belonging to middle 33% tile in case of youth, and to upper 33% tile in both categories, compared to the lower 33% tile which was set as a base category). On contrary, in cases of both youth and young adults, having a fear of failure is negatively related to the odds of involvement in opportunity-based business start-up. Moreover, both age categories exhibit significant effect of gender, where being female is negatively related to odds of starting a business based on opportunity. In addition to the common drivers, we have identified also two factors that are specifically significant to individual age categories. In case of youth, student status was found to be significantly reducing the odds of getting engaged in starting an opportunity-based business (with the second strongest influence in the model). In case of young adults, we found significant positive relationship between the odds of starting an opportunity-based early-stage entrepreneurial activity and perception of high societal status of successful new entrepreneurs. As for our control variables, we found positive effect of country affiliation (with Hungary set as a base category) in two cases, with no specific pattern. Age and year of survey were not significant and they were dropped from the final model.

Table 1. Opportunity-driven entrepreneurial activity drivers (logistic regression results)

Variable / Measure	Model: Youth				Model: Young adults			
	Estimate	Std. Error	Z value	Pr(> z)	Estimate	Std. Error	Z value	Pr(> z)
(Intercept)	-3.4773	0.3417	-10.1770	< 2e-16	-4.3758	0.2823	-15.4990	< 2e-16
Self-confidence	1.6611	0.2158	7.6960	< 1e-14	1.6673	0.1758	9.4860	< 2e-16
Alertness to opportunities	0.6155	0.1874	3.2850	0.0010	0.4723	0.1225	3.8540	0.0001
Fear of failure	-0.7639	0.2019	-3.7840	0.0002	-0.6342	0.1267	-5.0040	< 5e-7
Knowing an entrepreneur	1.1392	0.1959	5.8160	< 6e-9	1.1829	0.1336	8.8550	< 2e-16
Gender	-0.7456	0.1984	-3.7580	0.0002	-0.6214	0.1290	-4.8170	< 1e-6
Student	-1.4296	0.3112	-4.5930	< 4e-6	–	–	–	–
Status of entrepreneur	–	–	–	–	0.2655	0.1253	2.1190	0.0341
Income: mid 33% tile	0.5669	0.2687	2.1100	0.0349	0.1935	0.1817	1.0650	0.2869
Income: up 33% tile	0.6838	0.2556	2.6760	0.0075	0.4982	0.1685	2.9560	0.0031
Poland	-1.2179	0.3024	-4.0270	0.0001	-0.0002	0.2000	-0.0010	0.9994
Czech Rep.	-0.2811	0.2675	-1.0510	0.2933	0.4628	0.1905	2.4290	0.0152
Slovakia	-0.4801	0.2647	-1.8140	0.0697	0.1841	0.1892	0.9730	0.3304
Res. dev.	865.1				1932.6			
df	2 040				3 632			
Akaike	889.1				1956.6			
Log-likelihood	< 1e-4				9.7050			
p (Chi-sq.)	0.9992				0.0018			
HL GOF	0.9747				0.6288			

“–” = variable dropped from the model

Source: own calculations in statistical software R.

Drivers of Necessity-based Entrepreneurship

As shown in Table 2 below, the results of binomial logistic regression analysis conducted to identify the drivers of youth and young adult involvement in early-stage entrepreneurial activity out of necessity prove significance of seven out of twelve variables. However, the two examined age cohorts have only two common significant drivers, while the remaining variables were found to be significant always for one of the categories only.

As can be seen from the results presented in Table 2, the odds of becoming engaged in necessity-driven entrepreneurial activity in both analysed age categories are positively related to entrepreneurial self-confidence (with strongest effect among all significant variables in both models) and knowing an individual with recent start-up experience. In addition to these two common drivers, we have identified several factors relevant specifically to one of the analysed cohorts. Regarding the youth, we have found that having a fear of failure and being a student significantly inhibit odds of involvement in early-stage business activity out of necessity. Also, we found a significant relationship between income category and odds of starting a business out of necessity (especially for belonging to middle 33% tile compared to lower 33% tile which was set as a base category). On contrary, regarding the young adults, we have identified the significant effect of gender, with being female exhibiting negative relationship to the odds of becoming involved in

necessity-driven entrepreneurial activity. As for the control variables, we have found significant effect of country affiliation (with Hungary set as a base category) in case of young adults, but with no specific pattern. Age and year of survey were found not significant and were dropped from the final model.

Table 2. Necessity-driven entrepreneurial activity drivers (logistic regression results)

Variable / Measure	Model: Youth				Model: Young adults			
	Estimate	Std. Error	Z value	Pr(> z)	Estimate	Std. Error	Z value	Pr(> z)
(Intercept)	-4.5885	0.4224	-10.8620	< 2e-16	-4.6854	0.3109	-15.0690	< 2e-16
Self-confidence	1.7457	0.3224	5.4140	0.0000	1.5000	0.2359	6.3600	< 2e-10
Fear of failure	-0.7863	0.2888	-2.7230	0.0065	–	–	–	–
Knowing an entrepreneur	0.6774	0.2701	2.5080	0.0121	0.8298	0.1845	4.4980	< 6e-6
Gender	–	–	–	–	-0.2474	0.1770	-1.3980	0.1621
Student	-1.5523	0.5254	-2.9550	0.0031	–	–	–	–
Income: mid 33% tile	0.9019	0.3608	2.4990	0.0124	–	–	–	–
Income: up 33% tile	0.0857	0.3899	0.2200	0.8261	–	–	–	–
Poland	–	–	–	–	0.4215	0.2730	1.5440	0.1226
Czech Rep.	–	–	–	–	-0.2114	0.3040	-0.6960	0.4867
Slovakia	–	–	–	–	0.5431	0.2677	2.0290	0.0425
Res. dev.				457.2				1 106.8
df				1 945				3 416
Akaike				489.2				1 120.8
Log-likelihood				1.8640				2.8200
p (Chi-sq.)				0.1722				0.0931
HL GOF				0.5407				0.9033

“–” = variable dropped from the model

Source: own calculations in statistical software R.

Synthesis, Comparison and Discussion of Findings

Our findings on significant drivers of opportunity and necessity early-stage entrepreneurship among youth and young adult individuals in V4 countries identify several common drivers together with certain distinctive attributes. Summary of our findings on significance of the hypothesized drivers is provided in Table 3 below. It points out some interesting key findings. First, having the entrepreneurial self-confidence as well as an access to entrepreneurial network (through personally knowing someone who recently started a business) are significantly related to both types of entrepreneurship in both age categories. Moreover, self-confidence exhibits the strongest relation among explanatory variables with similar strength in all four models. On contrary, knowing an entrepreneur was found to have considerably higher strength in case of opportunity-driven entrepreneurial activity. Second, fear of failure significantly inhibits all examined types of entrepreneurship (with very similar strength of the relationship), except of the necessity-driven efforts among young adults. Third, being a female was found to be negatively associated with involvement in opportunity-driven activity in both age cohorts, as well as with involvement in necessity-driven efforts in young adult age category. Fourth, we found that being a student in youth age category significantly inhibits involvement in

early-stage entrepreneurial activity, irrespective its predominant motivation. Moreover, this factor had the second highest strength in both models. Finally, we found significant positive relationship between income category and all examined alternatives, except of entrepreneurship out of necessity among young adults.

Table 3. Significance of the hypothesized youth entrepreneurship drivers (summary)

Variable	Opportunity		Necessity	
	Youth	Young adults	Youth	Young adults
Self-confidence	Yes (+)	Yes (+)	Yes (+)	Yes (+)
Alertness to opportunities	Yes (+)	Yes (+)	No	No
Fear of failure	Yes (-)	Yes (-)	Yes (-)	No
Knowing an entrepreneur	Yes (+)	Yes (+)	Yes (+)	Yes (+)
Status of entrepreneur	No	Yes (+)	No	No
Gender	Yes	Yes	No	Yes
Education	No	No	No	No
Student	Yes (-)	No	Yes (-)	No
Income	Yes (+)	Yes (+)	Yes (+)	No

(+) = positive relationship; (-) = negative relationship

Source: own elaboration.

Self-confidence about having skills, knowledge and experience required to start a business was found the most important driver leading both youth and young adults towards engagement in business start-ups, irrespective the motivation in behind. Important role of self-confidence corresponds with the theory establishing it as a component affecting, together with opportunity recognition, the perceived feasibility of entrepreneurial act (Krueger, Reillyb & Carsrudc, 2000). Also, our findings are in line with empirical research among general entrepreneurial population (Arenius & Kovalainen, 2006; Koellinger, 2008). Especially related to youth entrepreneurship, our results correspond with findings by Ceptureanu (2015) who identified that almost 8 in 10 young entrepreneurs reported to have strong self-confidence. Moreover, universality of this driver is suggested also by very similar strength of relationship in all our models. Thus, we can conclude that this generally proven driver of entrepreneurial propensity is also valid for young individuals, whether they face opportunity or necessity start-up motivation.

Alertness to good business opportunities was identified as a factor significantly related only with opportunity-driven activity, but both among youth and young adults. In our opinion, this result is rather self-explanatory, since opportunity recognition is an important precondition for involvement in opportunity-based business start-up (e.g. Krueger *et al.*, 2000). Also, previous empirical research has proven the role of opportunity perception as significant business involvement driver (Ramos-Rodríguez, Medina-Garridoa & Ruiz-Navarro, 2012; Langowitz & Minniti, 2007). Regarding young entrepreneurs, study by Ceptureanu (2015) found three quarters of young entrepreneurs positively self-assessing their ability to identify opportunities.

Fear of failure that would prevent one from starting a business was found to be a significant inhibitor of involvement in entrepreneurial activity. The only exception are young adult necessity-driven businesses. To explain this finding, we assume that under the pressure of necessity, young adults (who are usually already economically active and have certain responsibilities to secure income for themselves and their families) are

more likely to overcome the existent fear of failure and make a step out of their comfort zone towards starting a business activity, than in case they would not be pushed and would consider starting a business based on recognized opportunity, or than their younger counterparts with (generally) no economic responsibilities are. Previous empirical findings related to fear of failure are quite ambiguous, showing significant (Ramos-Rodriguez *et al.*, 2012) as well as no effect (Driga, Lafuente & Vaillant, 2008), alongside with moderating effect of gender (Koellinger, Minniti & Schade, 2013; Wagner, 2007). Thus, our results that decompose population of entrepreneurs according to age category and start-up motivation may contribute to explaining the reason for such ambiguity.

Knowing personally an individual with recent start-up experience (our proxy for entrepreneurship-relevant social capital) was found to have significant positive relationship with propensity to both necessity- and opportunity-driven entrepreneurial activity among both youth and young adults, which corresponds with previous empirical findings (Lukes *et al.*, 2013; Ramos-Rodriguez *et al.*, 2012). Interestingly, this relationship is stronger in case of opportunity-driven entrepreneurship. Thus, in our opinion, the nature of this relationship may have different origins in the two types of motives. In case of opportunity, we assume that individuals benefit from their entrepreneurial network mainly in terms of broadening horizons for recognition and creation of business opportunities, and capacity to their exploitation. On contrary, when individuals face the necessity, entrepreneurial network may encourage them to pursue the business start-up path as one of the ways out of necessity, or help them to acquire required resources.

Perceived high societal status of entrepreneurs was found to be significant only in case of opportunity entrepreneurship among young adults, but with rather low strength (as the factor with the lowest strength in the model). Thus, we assume, unlike we hypothesized, that there is no general pattern in relationship between this particular societal attitudes perception, and involvement in business start-up efforts.

Gender was identified as factor significantly influencing the both types of young adults' entrepreneurial activity, as well as the opportunity-based activity of youth. In particular, being a female is negatively related to becoming an early-stage entrepreneur. This is in line with previous findings on uneven representation of women in business activities (Holiienka, Jančovičová & Kovačičová, 2016). However, the exception in case of youth necessity-driven activity suggests that female youth individuals consider entrepreneurship as way out of necessity in similar extent as their male counterparts.

Education was found not to be significantly related to business start-up in none of our models, irrespective the type of motive. Thus, we assume that formal educational attainment is not a relevant human capital component influencing the ability to recognize and exploit business opportunities (therefore fostering opportunity-driven activities), or providing other sufficient occupational options in the necessity situation (thus inhibiting necessity-based business start-ups) among young individuals. Similar findings have been presented by previous empirical studies (Lukeš *et al.*, 2013; Van Der Sluis, Van Praag & Vijverberg, 2008).

Student status was identified as significant inhibitor of youth involvement in early-stage entrepreneurial activity, irrespective its motivation. In our opinion, this result can be explained by the fact that, generally, youth individuals participating in the educational process do not consider opportunities around them to start a business, nor they are in

necessity situations, since they do not yet need to be economically active and self-sufficient, and can generally rely on support of their families.

Finally, regarding household income, we found its significant positive relationship to involvement in entrepreneurial activity of young individuals in all cases, except of necessity-driven young adult entrepreneurship. While opportunity-driven entrepreneurship exhibited stronger relationship with the upper income category, it was middle income category in case of necessity-based youth entrepreneurship. Generally, in our opinion, there might be a logical explanation for this situation. We suppose that this relationship does not mean causality from income to entrepreneurial activity, but rather in the opposite direction. In simple words, young individuals probably do not start businesses because of high income of their household, but, vice versa, they rather achieve higher income thanks to being involved in opportunity-based entrepreneurship.

CONCLUSIONS

Our findings suggest there are several similarities together with certain differences in opportunity- and necessity-driven entrepreneurship drivers among young individuals. According to our results, entrepreneurial self-confidence and access to entrepreneurial network are significantly related to both types of entrepreneurship in both age categories. While fear of failure significantly inhibits all examined types of entrepreneurship except of the necessity-driven efforts among young adults, being a female was found to be negatively associated with involvement in opportunity-driven activity in both age cohorts, as well as with involvement in necessity-driven efforts in young adult age category. Also, being a student was found to be significant inhibitor of enterprising effort of youth irrespective its motivation, and alertness to opportunities was identified as important driver of opportunity-based businesses in both age categories.

Regarding the limitations of our analysis, since all analysed items originate from the same survey, as well as due to the testing method employed, an argument that our findings cannot be unambiguously interpreted as causal relationships could occur (Bosma, 2013). However, the evidence coming from our data is rather strong and based on solid theoretical arguments, so we argue that qualitative nature of our results is correct. Also, due to the nature of our data, we were not able to inquire deeper into the nature of opportunity or necessity, or possibility of their combination. Thus, we recommend these directions to be followed by future entrepreneurship research devoted to the opportunity/necessity perspective. Also, further directions could expand research on youth entrepreneurship from individual to social and institutional levels, using multi-level analytical techniques.

From a policy perspective, our results identify the important factors in relation to support of entrepreneurial activities considering the motivation behind business start-up. We show directions for policy makers aiming to foster entrepreneurship within young generation as both a way to exploit available business opportunities, as well as reaction to necessity situations.

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Student Entrepreneurship in Hungary: Selected Results Based on GUESS Survey

Andrea S. Gubik, Szilveszter Farkas

ABSTRACT

Objective: This study investigates students' entrepreneurial activities and aims to answer questions regarding to what extent do students utilize the knowledge gained during their studies and the personal connections acquired at universities, as well as what role a family business background plays in the development of students' business start-ups.

Research Design & Methods: This paper is based on the database of the GUESS project investigates 658 student entrepreneurs (so-called 'active entrepreneurs') who have already established businesses of their own.

Findings: The rate of self-employment among Hungarian students who study in tertiary education and consider themselves to be entrepreneurs is high. Motivations and entrepreneurial efforts differ from those who owns a larger company, they do not necessarily intend to make an entrepreneurial path a career option in the long run. A family business background and family support play a determining role in entrepreneurship and business start-ups, while entrepreneurial training and courses offered at higher institutions are not reflected in students' entrepreneurial activities.

Implications & Recommendations: Universities should offer not only conventional business courses (for example, business planning), but also new forms of education so that students meet various entrepreneurial tasks and problems, make decisions in different situations, explore and acquaint themselves with entrepreneurship.

Contribution & Value Added: The study provides literature overview of youth entrepreneurship, describes the main characteristics of students' enterprises and contributes to understanding the factors of youth entrepreneurship.

Article type: research paper

Keywords: entrepreneurship education; higher education; youth entrepreneurship; self-employment; family business background

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INTRODUCTION

Business enterprises have become indispensable institutions of modern market economies because they stimulate economic and social development through innovation and job creation. As early as 1980s small-sized enterprises started to play an outstanding role in lowering the rate of unemployment, which had considerably increased due to downsizing and restructuring activities in large companies (Audretsch & Thurik, 2001). Currently, decision-makers are also attempting to seek solutions for the problem of unemployment which grew considerably during the financial crisis of 2008 and the following economic recession. They believe that entrepreneurship as a career opportunity can be a viable solution to youth unemployment.

Although the moderate economic recovery after the crises has improved the rate of youth employment to some extent, a real breakthrough in reducing the unemployment rate has not been achieved yet. Statistical data clearly show that the rate of youth unemployment has increased in most countries, which resulted in difficult to manage economic and social problems. The rate amounted to 21.6% in the EU member states in 2014 (Eurofound, 2015). An important element of managing this problem is the promotion of self-employment and youth entrepreneurship (Eurofound, 2015). Research studies also show that there is some transition of young unemployed people into self-employed (Shutt & Sutherland, 2003).

There are several documents dealing with youth entrepreneurship and its fostering. The Entrepreneurship 2020 Action Plan identifies three areas of intervention. One of these areas is entrepreneurial education and training. Both the Youth Entrepreneurship Strategies (YES), a project stimulating entrepreneurial aspirations of young people, and Erasmus for Young Entrepreneurs (EYE), a business exchange programme, aim at fostering entrepreneurship.

These important documents have come to a common conclusion, namely, that students studying in higher educational institutions must be provided complex assistance to be able to create new businesses. They should be taught good practices, offered reformed entrepreneurial education and given access to financial support.

This study investigates students' entrepreneurial activities. We are seeking an answer to questions such as how much students utilise the knowledge gained during their studies and the personal connections acquired at universities, as well as what role a family business background plays in the development of students' entrepreneurial aspirations, intentions and business start-ups. Also, students' objectives and motivations in becoming entrepreneurs as well as their success and growth orientations are investigated. In order to answer these questions, the Hungarian database of the international research project GUESSS (Global University Entrepreneurial Spirit Students' Survey) is used. After giving a literature overview, this study describes the main characteristics of the database and analyses student-entrepreneurs and their businesses in detail based on the survey of 2013, as this is the last available database.

LITERATURE REVIEW

Main Definitions

Entrepreneurship is a complex concept. It is “the mindset and process to create and develop economic activity by blending risk-taking, creativity and/or innovation with sound management, within a new or an existing organisation” (European Commission, 2003, p. 5). The definition of youth entrepreneurship also attempts to highlight this complexity: youth entrepreneurship is defined as a “practical application to enterprising qualities, such as initiative, innovation, creativity and risk-taking into the work environment (either in self-employment or employment in small start-up firms), using the appropriate skills necessary for success in that environment and culture” (Schnurr & Newing, 1997) quoted in (Eurofound, 2015, p. 11).

The term ‘youth entrepreneurship’ constitutes an integral part of the general definition of entrepreneurship. Half a dozen or so common elements of youth entrepreneurship and entrepreneurship (opportunity recognition, risk-taking, commitment, etc.) indicate that there are only age differences between the two concepts. As for the age of ‘youth entrepreneurship’, the United Nations (UN) uses the age band of 15-24 years. Eurostat includes people who are 15-29 years old in the group of ‘youth entrepreneurs’. The Global Entrepreneurship Monitor (GEM) defines young entrepreneurs as people between the ages of 18-34 years. Although students studying in tertiary education make up only a special subset of the youth population, they are the target audience of this study. This study considers self-employed students to be young entrepreneurs in order to comply with the methodology used by the European data sampling.

Importance of Youth Entrepreneurship

Fostering entrepreneurship of students in higher education results not only in improving unemployment prospects of students, but also has some further benefits. According to GEM findings, the levels of entrepreneurial intentions of respondents belonging to this age group are 1.6 times higher than those of adults (Schot, Kew & Cheraghi, 2015), whereas the proportion of respondents pursuing actual entrepreneurial activities is significantly lower. In addition, businesses run by young entrepreneurs have lower survival rates than those of older entrepreneurs (OECD, 2015). The surviving businesses are more growth oriented. The questionnaire survey on Factors of Business Success conducted by Eurostat shows that enterprises run by people under the age of 30 more than doubled their growth during the examined period of three years, whereas entrepreneurs aged 40 and over achieved only an average growth of 131% (Schrör, 2006).

As for levels of education, the proportion of respondents with tertiary education background established more businesses in higher added-value industries (high-tech) and with higher initial capital (Richert & Schiller, 1994) quoted in (Lüthje & Franke, 2002). According to Autio (2005), enterprises run by well-qualified young entrepreneurs with a solid financial background who are motivated to utilise good business opportunities show higher growth potential.

In the 28 EU member states the rate of self-employed young people amounts to 6.5%, which translates into 2.67 million people. There are considerable differences between countries. Greece with its 16% shows the highest self-employment activity and

Luxembourg the lowest with 3.5%. As for the rate of self-employed respondents, Hungary takes the middle position among 28 EU member states. Studies limited to investigating self-employment came to the same conclusion as above, and state that there is a correlation between higher levels of education and self-employment rate, which means that the knowledge, competences and skills gained in higher educational institutions considerably contribute to entrepreneurship and business start-up intentions (Blackburn, 1997; Green, 2013). Generation role models are also significant in terms of self-employment because a high rate of children follow in their parents' footsteps (Mungai & Valemuri, 2011). 'Older' young people, especially males, are more likely to become self-employed than others (Dolton & Makepeace, 1990).

Who Will Become an Entrepreneur?

Since the threshold of active enterprises is entrepreneurial intention, a great number of business models can be adopted (Ajzen, 1991; Bandura, 1977; Shapero & Sokol, 1982). All of the models focus on complexity of decision-making processes. Numerous attempts have been made to understand the role of entrepreneurial attitudes, activities, conditions, characteristics and aspirations in entrepreneurship (GEM, 2014; YBI, 2011).

Several individual factors (personality traits and attitudes) and institutional factors affect the respondents' decisions to become an entrepreneur. Research studies differ in terms of factors included in the models and in the level of importance assigned to factors. Here are a few examples to show the diversity of coexisting findings. Willingness to take risks and striving to become independent are considered to be of extremely important individual factors (Meager, Bates & Cowling, 2003). Autio and Wennberg's (2010) findings are very surprising. They believe that norms and attitudes of the social group have a stronger impact on entrepreneurial behaviour than the personal attitudes and perceived self-efficacy of the individual herself¹. According to Bartha (2015), institutional factors, such as the taxation system, the level of transaction costs and the administrative burdens might have a significant effect on growth orientation of companies and lead to diverse business structure.

There is a consensus among academics and researchers that education and training provide the knowledge and competencies that are indispensable for entrepreneurship. Particular entrepreneurial knowledge and competencies can be taught and improved by effectively incorporating some subjects in the standard curricular (business studies, marketing, etc.), while others can further be developed by applying innovative teaching methodology (entrepreneurial thinking) (Borsi & Dóry, 2015; Imreh-Tóth, 2015). Universities have not only teaching tasks and responsibilities, but they also play a determining role in shaping opinions and building relationships.

Our previous papers dealt with modelling of students' entrepreneurial intention in detail. The database was analysed with multinomial logistic regression, based on Ajzen's theory of planned behaviour (Gubik, 2013; Gubik, 2015).

¹ Self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations.

Hypotheses

After reviewing the available literature and previous research findings, it turned out that there are still some questions that remained unanswered in the field of student entrepreneurship. Also, a gap in the research literature has been identified since student entrepreneurs' motivation by company size and their effect on students' long-term career plans are to be investigated. That is why the authors of this study formulated and tested the following hypotheses:

- H1:** The rate of self-employment among Hungarian students who study in tertiary education and consider themselves to be entrepreneurs is high.
- H2:** A great majority of self-employed students do not intend to make an entrepreneurial path a career option in the long run. They prefer working as employees in companies.
- H3:** A family business background and family support play a determining role in entrepreneurship career and business start-ups.

MATERIAL AND METHODS

GUESSS (Global University Entrepreneurial Spirit Students' Survey) investigates entrepreneurial intentions and activities of students. The survey explores the students' career intentions immediately after graduation and several years later, examines families' and students' own businesses and investigates their future entrepreneurial visions.² Systematic and long-term analyses help to identify the processes and factors that can have a decisive impact on entrepreneurial intentions.

The first survey was conducted in 2003 with the participation of two countries. Ten years later (in 2013) 34 countries had joined the project and 109,026 students from 759 higher educational institutions sent their responses to the questionnaire. In Hungary 8,839 students completed the questionnaire. Only the institutions where over 1000 students studied were selected for the survey in Hungary.

The distribution of respondents in our database partially represents the distribution of students by higher institution in Hungary. The distribution by the level of study and gender corresponds to the country ratios. As for the field of study, 41.5% of the respondents studied business and economics, 35.5% of them studied humanities and natural sciences, and the remaining 16.2% studied social sciences. The average age of the respondents was 23. About 27.0% of all respondents were younger than 20 and 88% were younger than 30 when they completed the questionnaire.

Mainly descriptive statistics were used to answer the stated hypotheses and the stochastic relationships among the variables were tested. We consider these methods appropriate for highlighting the main differences between different groups of entrepreneurs.

We used SPSS software to analyse the database. The structure of the tables follows the logic of the output tables of the software.

² See project and partners at <http://www.guesssurvey.org>. For more information on the Hungarian database and methodology see Gubik (2015).

RESULTS AND DISCUSSION

Main Characteristics of the Students' Enterprises

In the sample 7.4% of the respondents (658 students) indicated that they ran a business of their own. Over 25% of the respondents running their own businesses were nascent entrepreneurs and had established their businesses in the year when the survey was conducted (2013) (Table 1). The rate of enterprises that were 3 years old or younger amounted to over 50%. Since a major part of enterprises were new or established not long ago, the students did not have much experience.

Table 1. Student enterprises by year of establishment

Answers	Year of establishment	Frequency	%	Valid %	Cumulative %
Valid	2013	152	1.7	25.2	25.2
	2012	84	1.0	14.0	39.2
	2011	89	1.0	14.8	54.0
	2010	64	0.7	10.6	64.6
	2009	30	0.3	5.0	69.6
	2008	29	0.3	4.8	74.4
	2007	16	0.2	2.7	77.1
	2006	18	0.2	3.0	80.1
	2005	20	0.2	3.3	83.4
	Earlier	100	1.1	16.6	100.0
Total	602	6.8	100.0	–	
Missing	left unanswered	56	0.6	–	–
	System	8181	92.6	–	–
	Total	8237	93.2	–	–
Total		8839	100.0	–	–

Source: own elaboration.

Over half of the students running their own businesses were self-employed, 38.4% owned micro enterprises and 3.5% small-sized enterprises. The sample included only three medium-sized enterprises, which will be analysed only in an aggregate form, but they are not included in the comparative analysis of companies by size.

Table 3 shows the distribution of students' enterprises by activity areas and company size. The most popular sectors are 'Trade' (14.9%), 'Education and training' (14.4%) and 'Other services' (18.5%). In the sample 11.7% of respondents listed their activities as 'Other services', where such sectors as food industry, sports and media were the most popular.

The self-employed students were the most active in 'Other services' (including finance and insurance) and 'Education and Training' (18.3%). The indicated services were very varied: cosmetic beauty advisor, insurance advisor, amateur artistic activities and so on. These illustrative examples of performed activities show that students established enterprises to supplement their income in order to finance their studies, and the performed activities contain very few real entrepreneurial elements that would differ from employee elements.

Most micro-enterprises operated in 'Trade' (17.2%) and 'Other services' (16.7%). In the sample businesses out of the 21 small-sized enterprises three operated in 'Trade', three in 'Education and training', three in 'Tourism and catering' and three in 'Other' sectors.

Table 2. Student enterprises by company size

Answers		Frequency	%	Valid %	Cumulative %
Valid	Self-employed (0 employees)	350	4.0	57.7	57.7
	Micro enterprises (1-9 employees)	233	2.6	38.4	96.0
	Small enterprises (10-49 employees)	21	0.2	3.5	99.5
	Medium enterprises (50-249 employees)	3	0.0	0.5	100.0
	Total	607	6.9	100.0	–
Missing	System	8232	93.1	–	–
Total		8839	100.0	–	–

Source: own elaboration.

Table 3. Student enterprises by sector (in %)

Answers	Self-employed	Micro enterprise	Small enterprise
Information technology and communication	9.2	9.5	9.5
Trade (wholesale/retail)	12.9	17.3	14.3
Consulting (law, tax, management, HR)	9.2	10.4	0.0
Advertising / Marketing / Design	4.9	4.8	9.5
Education and training	18.4	9.1	14.3
Tourism and catering	1.7	6.9	14.3
Health services	4.6	2.6	0.0
Other services (including finance, insurance, etc.)	20.4	16.9	9.5
Architecture and engineering	3.7	3.5	9.5
Construction and manufacturing	1.4	4.3	4.8
Agriculture	3.2	2.2	0.0
Other	10.3	12.6	14.3
Total	100.0	100.0	100.0
<i>n</i>	348.0	231.0	21.0

Source: own elaboration.

A considerable proportion of the students cannot be viewed as entrepreneurs if we define an entrepreneur as a person, who takes risks, explores opportunities, is willing to experiment and is performance and future-oriented. Although most students are engaged in different types of enterprises, they perform activities that are very similar to activities performed by employees (e.g. insurance advisors and Avon advisors working on commission bases). It is obvious that these activities are very beneficial for entrepreneurship and entrepreneurial activities, because they allow students to gain an insight into the administrative burden related to entrepreneurship and specificities of entrepreneurial lifestyles (autonomy and working hours).

The high rate of self-employed students indicates how valuable this student group is. However, self-employed students rarely become entrepreneurs who operate ventures with substantial growth rates.

Company Foundation Process

More than half of the respondents started their businesses alone, without co-founders. The rate of respondents with one co-founder amounted to 31%, another 10% had 2 co-founders and the remaining respondents founded ventures with 3 or more co-founders (Table 4).

Table 4. Number of co-founders in student enterprises

Answers		Frequency	%	Valid %	Cumulative %
Valid	No Co-Founders	325	3.7	53.3	53.3
	1 Co-Founder	189	2.1	31.0	84.3
	2 Co-Founders	61	0.7	10.0	94.3
	3 Co-Founders	24	0.3	3.9	98.2
	>3 Co-Founders	11	0.1	1.8	100.0
	Total	610	6.9	100.0	–
Missing	left unanswered	48	0.5	–	–
	System	8181	92.6	–	–
	Total	8229	93.1	–	–
Total		8839	100.0	–	–

Source: own elaboration.

As for co-founder persons, they were mostly family members, as indicated by 189 respondents. A lower rate of co-founders (70 responses) came from non-university and non-college friends, 66 respondents had co-founders from professional networks and only 51 entrepreneurs founded their companies together with peers from higher institutions.

Questions related to company formation (Table 5) clearly show that students did not really express planned behaviour in the process of company formation. The table contains the mean values of the students' answers. Calculating mean of the scale values is also often used in the literature dealing with entrepreneurial intention and student entrepreneurship to aggregate different attributes of attitudes and other Likert scale statements (Ozaralli & Rivenburgh, 2016; Sieger, Fueglistaller & Zellweger, 2014; Zellweger, Sieger & Englisch, 2012; Lüthje & Franke, 2002; Szerb & Márkus, 2007).

The company size significantly affected the assessment (business strategy, target and market analyses, competitiveness analyses and marketing). The larger the enterprise the students owned, the more thoughtful answers they gave to the questions related to company formation. Surprisingly, business family background did not really affect the evaluation of the statements with the exception of two statements 'I was careful not to commit more resources than I could afford to lose' and 'I was careful not to risk more money than I was willing to lose'. Hence, even respondents with family business backgrounds did not make any serious preparations before forming a company. Neither the respondents' age, nor their field of education had any impact on the variables. Thus it is clear that the business and economics knowledge gained during studies is not incorpo-

rated in students' entrepreneurships. The analyses of enterprises by year of their establishment show the same results. It means that enterprises formed during students' studies also show an insignificant relationship with these variables.

Particular variables correlate with each other, which indicates that the respondents either considered themselves to be considerate and thoughtful or they did not.

Table 5. Company foundation process

Answers	Self-employed	Micro enterprises	Small enterprises
I designed and planned business strategies.*	4.06	4.56	5.25
I researched and selected target markets and did meaningful competitive analyses.*	3.93	4.42	4.60
I designed and planned production and marketing efforts.*	4.09	4.48	5.05
The product/service that I now provide is substantially different from the one I first imagined.	3.37	3.36	3.60
I tried a number of different approaches until I found a business model that worked.	3.94	4.08	4.67
I was careful not to commit more resources than I could afford to lose.	4.96	5.27	4.25
I was careful not to risk more money than I was willing to lose.*	4.96	5.06	4.05
I allowed the business to evolve as opportunities emerged.	5.16	5.18	5.20
I adapted what I was doing to the resources we had.	5.11	5.31	5.00
I was flexible and took advantage of opportunities as they arose.	5.28	5.39	5.71

(1=strongly disagree, 7=strongly agree)

*Significant effect of company size

Source: own elaboration.

The Role of Parental Support

A family business background plays a significant role in students' career aspirations (Gubik, 2013; Gubik & Farkas, 2014). In the sample 38.1% of respondents had parents or other family members who were entrepreneurs compared with 28% of students with non-family business backgrounds.

The positive effect of family business background favourably influenced students' entrepreneurial aspirations and was also experienced in the provision of parental support. Parental support was measured on the Likert scale from 1 to 7. Table 6 clearly shows that parents with business experience provided substantial support to their children in all areas. Students had access primarily to contacts and networks. Also, knowledge and advice were highly valued.

Table 6. Parental support

Answers	<i>n</i>	Without a family business background	<i>n</i>	With a family business background
Materials (equipment, facilities)	383	2.45	228	4.25
Contacts and networks	382	2.60	228	4.42
Knowledge and advice	384	2.89	228	4.54
Idea generation / evaluation	380	2.49	225	4.29
Financial resources (e.g., debt and equity capital)	383	2.43	226	4.21

(1=not at all, 7=very much)

Source: own elaboration.

Performance

The responses to the question relating to hours spent at work showed that students worked 25.8 hours per week on average, but there were significant differences. In larger companies respondents worked more than the average (Table 7). There was a significant correlation between company sizes and the invested amount of work ($r = 0.149$, $p = 0.000$). Students studying economics and business worked more than those studying social sciences ($\text{Eta} = 0.152$, $p = 0.004$).

Table 7. Hours worked per week by company size

Answers	Mean	<i>n</i>	Std. Deviation
Self-employed	21.33	315	19.341
Micro-enterprises	31.00	226	20.281
Small enterprises	32.14	21	17.289
Medium enterprises	58.00	3	11.357
Total	25.79	565	20.308

Source: own elaboration.

The average age of respondents involved in business activities (27.5) was higher than the age of those without enterprises (23.4). In the sample two-thirds of student running enterprises had regular jobs in addition to their studies, which may indicate that they were part-time students studying within the framework of correspondence or distance learning programmes (this was not part of the questionnaire). They are likely to have an established living standard and have an operating enterprise, when they decide to develop themselves. It was not their studies that inspired them to get engaged in entrepreneurial activities.

The surveyed entrepreneur students had to compare themselves with their competitors. The analyses of average scores provided only a limited basis for making any conclusions about competitors because respondents gave average scores to almost all questions (an average value of 4 on a 7-point Likert Scale) except to the question related to job creation. The majority of respondents generally considered that they lagged behind their competitors. When the company sizes were analysed, it turned out that the respondents who owned larger companies (and invested more efforts in their businesses)

compared favourably with their competitors. This correlation is significant at $p=0,000$, Eta values are between 0.164 and 0.300 (Table 8).

Table 8. Company performance compared to competitors

Performance type	Mean	Self employed	Micro enterprise	Small enterprise
Sales growth	4.05	3.81	4.32	4.63
Market share growth	3.73	3.43	4.06	4.47
Profit growth	3.97	3.73	4.22	4.65
Job creation	3.01	2.56	3.42	4.84
Innovativeness	3.99	3.67	4.25	5.62

(1=worst, 7=best)

Source: own elaboration.

Future Plans

In the sample 33.8% of the respondents did not plan any increase in the number of employees, 2.8% intended to decrease the workforce and the remaining entrepreneurs indicated growth intentions in the next five years. The company size had a significant impact on expansion plans since owners of larger companies had more positive visions regarding their growth potential. Some respondents (14 students) seemed to have unrealistic expansion plans. Owners of micro-enterprises intended to transfer into middle-sized companies within a couple of years. Half of these respondents were involved in 'IT/communication' and 'Other' sectors of industry. It was difficult to judge whether the surveyed students gave these responses to the questions in the questionnaire because of the anonymity and confidentiality guaranteed or because they really thought that there was a huge potential in their business ideas.

The same differences in the responses were experienced in students' intended career paths. Among active entrepreneurs 54.5% of students intended to work as employees after graduation. This rate among self-employed was the highest accounting to 62.3% and decreased with company size (Figure 1).

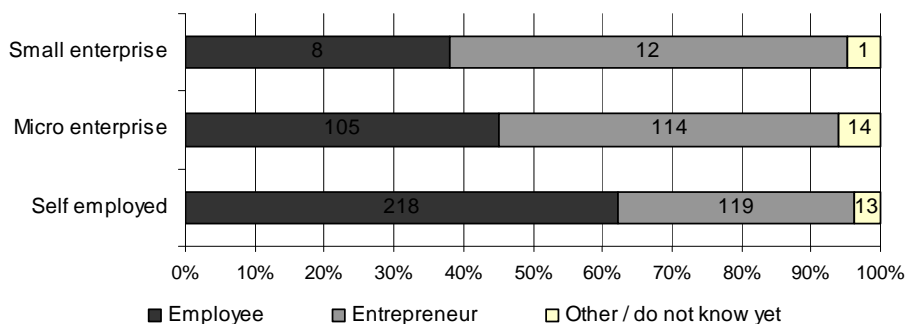


Figure 1. Career aspirations right after graduation by company size

Source: own elaboration.

This correlation is also significant (Cramer $V = 0.148$, $p = 0.000$) and is related to the higher performance and longer working hours. Both long working hours and high performance are also experienced in major companies.

Motivations

'Making money and becoming rich' appeared to be the most important goal of entrepreneurial students (mean 5.0 on the Likert scale from 1 to 7). Respondents considered 'to advance my career' to also be important (4.8). The types of motivation such as solving social problems, changing the conditions or changing the way the world works belonged to the least popular motives (Table 9).

Table 9. Motivations and goals

I created my firm in order...	<i>n</i>	Mean	Std. Deviation
... to make money and become rich	613	5.00	1.781
... to advance my career in the business world	612	4.80	1.877
... to solve a specific problem for a group of people that I strongly identify with (e.g., friends, colleagues, club, community)	611	4.34	2.034
... to play a proactive role in shaping the activities of a group of people that I strongly identify with	613	4.18	2.035
... to solve a societal problem that private businesses usually fail to address (such as social injustice, destruction of environment)	618	3.74	2.169
... to play a proactive role in changing how the world operates	611	3.84	2.210
Valid <i>n</i>	605	–	–

(1=strongly disagree, 7=strongly agree)

Source: own elaboration.

Table 10 shows that the level of importance of different elements of motivations and goals decreased with the increase in age of entrepreneurs. Similar changes were experienced in the case of the companies' age (the significant correlation between the two variables, namely the age of entrepreneurs and the age of companies may provide an explanation for this). Money and success appear to be the driving force of young people. They would like to be powerful shapers of their environment. This idealism decreases with the age of the company.

The analysis of company sizes show significant relationship only in case of the motivation of 'to advance my career in the business world'.

Table 10. Effect of entrepreneurs' age and company characteristics on motivations and goals (correlation matrix)

Answers	1	2	3	4	5	6	7	8	9
1. Your age?	1								
2. When did you found your firm (year)	0.492** (0.000)	1							
3. How many employees do you have today (full-time equivalent)?	0.056 (0.254)	0.063 (0.125)	1						
4. to make money and become rich	0.198** (0.000)	0.124** (0.002)	0.058 0.156	1					
5. to advance my career in the business world	0.205** (0.000)	0.162** (0.000)	0.135** (0.001)	0.563** (0.000)	1				
6. to solve a specific problem for a group of people that I strongly identify with (e.g., friends, colleagues, club, community)	0.084 (0.086)	0.111** (0.007)	0.071 (0.084)	0.084* (0.038)	0.331** (0.000)	1			
7. to play a proactive role in shaping the activities of a group of people that I strongly identify with	0.032 (0.519)	0.118** (0.004)	0.075 (0.068)	0.065 (0.109)	0.316** (0.000)	0.833** (0.000)	1		
8. to solve a societal problem that private businesses usually fail to address (such as social injustice, destruction of environment)	0.110* (0.024)	0.110** (0.007)	0.035 (0.390)	0.034 (0.395)	0.294** (0.000)	0.658** (0.000)	0.673** (0.000)	1	
9. to play a proactive role in changing how the world operates	0.123* (0.012)	0.139** (0.001)	0.033 (0.427)	0.067 (0.099)	0.280** (0.000)	0.585** (0.000)	0.620** (0.000)	0.770** (0.000)	1

**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

Spearman's rho values were calculated.

Source: own elaboration.

CONCLUSIONS

The composition of entrepreneur groups is very heterogeneous, starting from Avon advisors through advisors selling financial products to owners of small processing businesses. Particular activities require different amounts of time, money and other investments, involve different risks and show specific characteristics of entrepreneurship. Major conclusions of this study are as follows:

- The vast majority of entrepreneurial students work under conditions that are more characteristic of the status of employees and are considered to be students. Only a small group of respondents comply with the status of 'entrepreneurs' so it is they who make up the student-entrepreneur group.
- A significant part of students are self-employed. They invest less time in their work, are less considerate and growth-oriented than students with larger enterprises and prefer to work as employees after graduation. However, entrepreneurial activities of students who view entrepreneurship as a temporary source of living or supplementary income can also be beneficial because they have to resolve various entrepreneurial tasks and problems, make decisions in different situations and explore and acquaint themselves with entrepreneurship. Students belonging to this group are more likely to become entrepreneurs and are less uncertain about their career path than students who do not pursue entrepreneurial activities at all.

- Entrepreneurial training and courses offered at higher institutions are not reflected in students' entrepreneurial activities. To simplify the survey results, there are two extreme situations: a self-employment form that finances studies and studies that are accompanied by mature entrepreneurship.
- As for the size of enterprises, respondents who owned larger enterprises had a more serious approach to entrepreneurship. They worked longer hours and achieved better performance. The majority of them intended to be entrepreneurs and own enterprises with growth potential.
- Family business background plays a determining role in shaping the entrepreneurial intentions of students. Start-up intention highly depends on the amount of the financial support offered by parents and on a planned and proactive approach towards founding an enterprise.

Based on the research results of the paper we accept the hypotheses of H1, H2 and H3. The results of the survey are useful for training, education and enterprise development. In the training and education context, teaching and learning forms that comply with particular education levels and may be useful in entrepreneurial processes should be developed. Universities should offer not only conventional business courses (for example, business planning) but also new forms of education. This does not necessarily require a substantial investment from educational institutions if they are willing to support the elaboration of new programmes within the current inflexible regulatory environment (for example, higher education training and certification requirements) and finance the development work performed by academic and teaching staff from project resources.

As this database contains more than 8000 answers from more than 30 higher education institutions, the results of the analysis can be generalised in terms of Hungarian students. At the same time, further econometric calculations and qualitative techniques are required to be carried out in order to identify the reasons for the existing differences between the analysed groups.

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Metaphors of Entrepreneurship among Polish Students: Preliminary Research Findings

Michał Chmielecki, Łukasz Sułkowski

ABSTRACT

Objective: In Poland entrepreneurship is often perceived as an extremely risky process and entrepreneurs are often portrayed in a negative light. The research goals of our exploratory study is to identify the entrepreneurship metaphors among Polish management students.

Research Design & Methods: Authors decided to run both qualitative and quantitative research. In the first part we addressed 124 management students on three levels BA, MA and MBA. The respondents were asked to give their metaphorical expressions on paper. The next step was to prepare a questionnaire based on 7 point Likert scale. This questionnaire was run among BA management student group composed of 82 students.

Findings: Our results suggest that there are several major entrepreneurial narratives evident among all three groups including creativity and innovation, competition, war, journey, risk, adventure and exploitation.

Implications & Recommendations: The empirical findings serve as a starting point for further in-depth research on entrepreneurship metaphors. It is recommended that in order to gain a complete picture of the issues underlying the results, both qualitative and quantitative research on a bigger sample should be undertaken.

Contribution & Value Added: The originality of this work lies in studying some aspects of entrepreneurship metaphors among non-entrepreneurs in Poland. With regards to the research limitation, it must be highlighted that it was a pilot study and the results cannot be generalized.

Article type: research paper

Keywords: metaphors of entrepreneurship; entrepreneurship; metaphors; research; entrepreneurship education; Poland

JEL codes: M12, L26

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INTRODUCTION

Entrepreneurship, has always been at the heart of economy's dynamics. Entrepreneurship continues to gain momentum as a significant and relevant research field. Policy makers in the rush to stimulate entrepreneurship in various countries, CEOs and company owners are looking for entrepreneurial employees (Chmielecki, 2013). Focus on entrepreneurship has been spurred by enormous popularity of start-up firms in high technology industries, the expansion of venture capital financing, successes of regional clusters, notably Silicon Valley and possibilities of crowdfunding. Some management scholars and social scientists interested in entrepreneurship focused their attention on studying metaphors of entrepreneurship. Unfortunately not much on this subject have been written in Polish context. As culture influences entrepreneurship, different nations have their own concepts of entrepreneurs and entrepreneurship.

The objective of this article is to identify the existing entrepreneurship metaphors among Polish management students, and this is an exploratory study at the very initial stage.

The article is divided into three main parts. At first literature is discussed, and the special attention was paid to metaphors in economic discourse. The second part briefly presents the methodological assumptions and the survey design. Finally, the articles elaborates on the survey results conducted among Polish students.

LITERATURE REVIEW

Defining Entrepreneurship

Entrepreneurship has always been a dominant force in economy. It changes the way we work, the way we communicate, the way we live. It generates Innovation, improves the quality of goods and services. Since the early 1980s, entrepreneurship has emerged as a topic of growing interest among social scientists and numerous management scholars (Cooper, 2003). Literature on entrepreneurs and entrepreneurship has stemmed from three main sources (Deakins, 1999):

1. economic authors who stress the role of the entrepreneur in economic development;
2. social and business authors who stress the influence of the social and business environment on entrepreneurship;
3. psychologists who focus on the personality traits of entrepreneurs.

A bit more detailed typology of entrepreneurship was proposed by Wach (2015), who tried to combine both economics and business studies, which resulted in distinguishing four primary and three secondary functions of entrepreneurship (Figure 1).

What is more, entrepreneurship is one of the most studied topics in economics and business research (Table 1). Concepts of entrepreneurship have been changing overtime.

Table 1. Definitions and variables that describe entrepreneurship

Author	The concept of entrepreneurship	Variables describing entrepreneurship
Schumpeter (1934)	Recognising opportunities for implementation of ventures that are profitable and risk-taking to implement them.	1. The tendency to operate in conditions of uncertainty 2. Exploration and exploitation of market opportunities
Churchill (1983)	The process of discovery and development of capabilities to create new value through innovation, acquisition of necessary resources and managing the process of value creation.	1. Technological and organizational innovation 2. Exploration and exploitation of market opportunities
Timmons (1990)	The process of creating or identifying opportunities and using them despite of their current resources (...). It is an creative act of an entrepreneur who finds in him and devotes enough energy to initiate and build a company or organization, rather than just observe, analyse and describe it.	1. The tendency to operate in conditions of uncertainty 2. Exploration and exploitation of market opportunities 3. Entrepreneurial personality of a manager
Hisrich & Peters (1992)	The process of creating something different, because of its value in the framework of which necessary time and effort is devoted to achieve this goal, assuming the accompanying financial, psychological and social risk, and expecting obtaining financial rewards and personal satisfaction.	1. Technological and organizational innovation 2. The tendency to operate in conditions of uncertainty 3. Exploration and exploitation of market opportunities 4. Entrepreneurial personality of a manager
Frey (1993)	Starting a venture and (or) its growth, which occurs through the use of innovation, by management assuming the risk.	1. Technological and organizational innovation 2. The tendency to operate in conditions of uncertainty
Piasecki (1998)	Entrepreneurship is the process: - which includes the action taken for the analysis of opportunities of start and development (or just development) of the venture, its financing and the possibility of meeting the effects of such action; - which can take many different forms and shapes, including initiation of a venture, creativity and innovation in developing new products or services, managing an existing venture in such a way that it develops quickly and continuously, seeking financial and material supply sources for potentially growing number of ventures, accepting risk in the development of new or expansion of existing ventures (these elements are the part of the entrepreneurial process, although not all of them must participate in each activity).	1. Technological and organizational innovation 2. The tendency to operate in conditions of uncertainty 3. Market and intraorganizational flexibility 4. Exploration and exploitation of market opportunities 5. Entrepreneurial personality of a manager
Kraśnicka (2001)	Entrepreneurship is an activity that stands out by: activity and dynamism, innovation, looking for changes and reacting to them, perceiving opportunities and their use, regardless of the resources (at the moment), willingness to take risks, which main motive is to multiply the capital.	1. The tendency to operate in conditions of uncertainty 2. Technological and organizational innovation 3. Market and intraorganizational flexibility 4. Exploration and exploitation of market opportunities
Sudoł (2008)	Feature (way of behaving) of entrepreneurs and companies, that means the willingness and ability to undertake and solve creative and innovative new problems, while taking into consideration its risks, the ability to use the available opportunities and flexibility to adapt to changing conditions	1. Technological and organizational innovation 2. Market and intraorganizational flexibility 3. Exploration and exploitation of market opportunities 4. Entrepreneurial personality of a manager

Source: own compilation based on the cited references.

As Sułkowski (2012) noticed “in many of the listed definitions, the following variables describe entrepreneurship as:

1. a process of innovative and creative markets activities or organizational changes (technological and organizational innovation);
2. taking risks in business or tolerance of uncertainty aiming at the development of the venture (the tendency to act under uncertainty);
3. flexibility in relation to strategy and market activities and the willingness to change and intraorganizational flexibility (market and organizational flexibility);
4. exploration and exploitation of opportunities inherent in the environment of the organization and the unique competitive advantages of having support in the organizational resources (exploration opportunities);
5. a set of entrepreneurial characteristics such as innovation, creativity, willingness to take risks, and orientation to change (the entrepreneurial personality).

Summarizing the above definitions we can agree that entrepreneurship is the transformation of an innovation into an enterprise generating value.

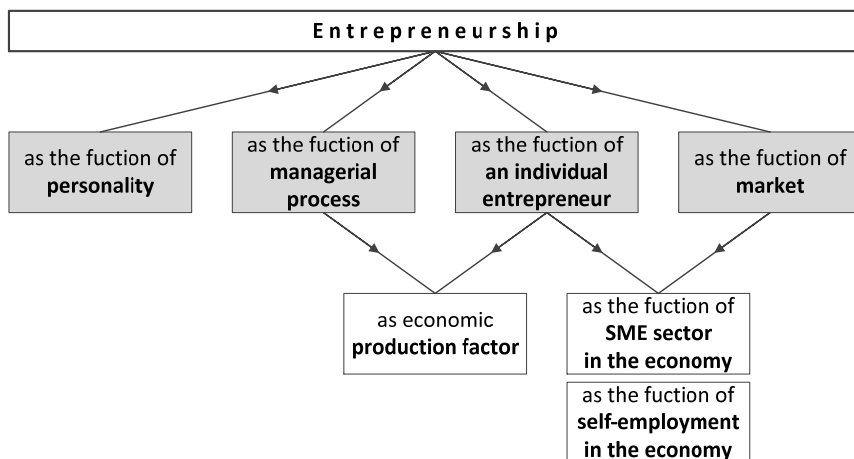


Figure 1. Basic functions of entrepreneurship in economics and business studies

Source: Wach (2015, p. 14).

Metaphors in Economic Discourse

Metaphors have been an important object of interest along centuries. It has been the focus of various studies, research, analysis and theory, starting from Aristotle and going on till now. Contrary to standard thought, metaphors pervade our thinking and conceptualization rather than serving a poetic and rhetorical device. In the field of communication and to be more precise, linguistics, it has been accepted that our thoughts and cognitive processes are highly metaphorical i.e. metaphors constitute and construct human thoughts (Lakoff & Johnson, 1980; 2003). Deignan (2005, p. 18) believes that language is hardly metaphor-free suggesting that people think in metaphors and become familiar with new domains due to metaphorical thinking (Lakoff & Johnson, 1980; Gentner

& Jeziorski, 1993), since analogical reasoning leads to new insights in either a new or familiar concepts (Schön, 1993; Walsh, 1995).

Metaphor is common in economic discourse (McCloskey, 1995). Many terms in economics such as inflation, depression or expansion, are metaphorical in their very own nature. However, it was 1982, when W. Henderson opened the discussion of metaphor in economics, emphasizing the scarcity of analyses of metaphor in economics, in spite of the wide and deliberate use of metaphor in economic texts. Finally, the 1980s brought the emergence of metaphors from the closet. Lakoff and Johnson (1980) were the pioneers in this field. They demonstrated the pervasiveness of metaphorical reasoning. According to them, metaphors were necessary for humankind's understanding. In the twenty-five years since the Peters and Waterman's triumph, the use of metaphors gained strength. Every imaginable academic discipline started using metaphors (Knowles & Moon, 2006). This was more so in the business and management fields.

This "metaphoromania" of the last three decades resulted in a lot of research, which deals with the following processes: identification, comparison and juxtaposition, and the two dimensions of metaphor, i.e. the instrument of thinking used to shape a certain discipline and, paradoxically, the outcome of the light shed upon the metaphorical process itself. Thus, metaphor is considered both a tool of forming various sciences and a result of the way in which these sciences developed (Vasiloiia, Gaisoa, & Vergara, 2011).

Metaphors of Entrepreneurship

Charteris-Black (2004) emphasizes that metaphors involve a transfer of meanings. The use of a metaphor allows people to map a schema, well-known to them onto a new domain and assess the fit of relationships between variables from one to another (Wickman, Daniels, White & Fesmire, 1999). This facilitates understanding of complex and abstract ideas (Palmer & Dunford, 1996), such as entrepreneurship. Metaphors are known to capture experience and emotions better than literal discourse (Palmer & Dunford, 1996).

Research concerning metaphors is well established within the entrepreneurship field. Scholars have studied the metaphors for entrepreneurship used by entrepreneurs (Hyrsky, 1999; Dodd, 2002) and non-entrepreneurs (Koiranen, 1995). Many have studied the metaphors media use to portray entrepreneurs (Nicholson & Anderson, 2005). The use of metaphors for sense-making and sense-giving among entrepreneurs was also a subject of research (Hill & Levenhagen, 1995). However, the use of metaphors for entrepreneurship in Poland is still heavily under-researched.

MATERIAL AND METHODS

The research goals of our exploratory study is to identify entrepreneurship metaphors among Polish management students. This research will focus on metaphors of entrepreneurship used by non-entrepreneurs. The research procedure employed was qualitative in nature. We reached students of the University of Social Sciences in Łódź in late 2015. We reached the students we had classes with, so it was not a random sample. Thus, the presented results are not representative, but they can illustrate the basic image in the undertaken theme among students from Poland.

We had two stages of the investigation. We addressed 124 management students on three levels, namely bachelor (BA), master (MA) and post-graduate (MBA) and they constituted the first research group. The second research group consisted of 82 students at the bachelor level only. The first group was used for experimental phase of research and the second group was used for the survey questionnaire.

RESULTS AND DISCUSSION

The first research group consisted of 124 students. The respondents were asked to give their metaphorical expressions on paper. As far sex is concerned the group was diversified as 54% of the respondents were female and 46% were male. The average age of respondents was 29 years and the average number of years of employment among respondents was 6.8. 33% of the respondents said that either their parents or close relatives were or had been business owners. None of the respondents had any experience either in setting up or in running their own business.

Student respondents were asked to create the metaphors of their own accord. They were encouraged to follow their first instincts in forming lexical associations depicting the essential characteristics of a entrepreneurship. Metaphors were grouped into 8 different clusters based on their semantic properties (Table 2). Our results suggest that there are several major entrepreneurial narratives evident among all three groups including creativity and innovation, competition, war, journey, risk, adventure and exploitation.

The next step was to prepare a questionnaire based on 7-point Likert scale. This questionnaire was run among BA management student group composed of 82 students only (the second research group).

As for sex the sample was diversified as 50 of the respondents were female and 32 were male. The average age of respondents was 27 years and the average number of years of employment among respondents was 5.6. 12 respondents said that either their parents or close relatives were or had been business owners. None of the respondents had any experience either in setting up or in running their own business.

Based on 7-point Likert scale, in order to generalize results we calculated the basics descriptive statistics – mean and standard deviation. Although some statisticians negate such solutions, numerous studies published even in the top-ranking journals of business studies accept such an approach (Ozaralli & Rivenburgh, 2016; Wach & Wojciechowski, 2016). The results are depicted in Table 3.

Hayton, George and Zahra (2002) stress that cultural values serve as a filter for the degree to which a society considers certain entrepreneurial behaviours as desirable. Moreover, numerous authors have emphasized the importance of understanding the impact of cultural norms on entrepreneurship. Several researchers acknowledge the importance of the cultural context for career decisions as entrepreneurs (Flores, Robitschek, Celebi, Andersen & Hoang, 2010; Leong, 2010).

Table 2. The content analysis of the metaphors of entrepreneurship among surveyed students

No.	Metaphor Category	Examples
1.	Creativity or innovation	The respondents provided for example the following expressions to emphasize the ideas of creativity and innovations: "Entrepreneurship is building something out of elements which are initially not connected" "Entrepreneurship is like constant problem solving exercise" "Entrepreneurship is creating solutions" "Entrepreneurship is building a fast path to the future you want."
2.	Competition	The metaphors indicating competition: "Entrepreneurship is a race for money" "Entrepreneurship is a track race" "Entrepreneurship is like wrestling" "Entrepreneurship is a marathon race" "Entrepreneurship is a competition"
3.	Journey	The metaphors indicating journey: "Entrepreneurship is like conquering a steep hill, one after another" "Entrepreneurship is a never ending journey full of new people, places and situations"
4.	War	The metaphors indicating war: "Entrepreneurship is a war" "Entrepreneurship is a war game against taxes and taxcouncil" "Entrepreneurship is a constant battle" "Entrepreneurship is a survival game" "Entrepreneurship is like being on a battlefield, every day, all day long"
5.	Adventure	The metaphors indicating adventurers: "Entrepreneurship is blazing new trails" "Entrepreneurship is swimming across a stormy seas"
6.	Exploitation	Metaphors indicating exploitation of others: "Entrepreneurship is exploiting other people" "Entrepreneurship is taking advantage of employees" "Entrepreneurship is squeezing as much as you can form others"
7.	Risk	Metaphors indicating risk: "Entrepreneurship is like walking on a tightrope" "Entrepreneurship is like skating on thin ice" "Entrepreneurship is like a Russian roulette"
8.	Miscellaneous	Some miscellaneous metaphors were used, such as: "Entrepreneurship is the key to success in life" "Entrepreneurship is dreaming big, and getting big" "Entrepreneurship is like workaholism but in a positive way" "Entrepreneurship as a style of living" "Entrepreneurship is like harvesting – you reap what you sow" "Entrepreneurship is hunting for clients"

Source: own study based on open questions ($n = 124$).

Table 3. Entrepreneurship metaphors among surveyed students

Metaphor	Mean	Std. Dev.
Creativity/innovation	3.353	1.399
Competition	5.061	1.390
Journey	2.902	1.384
War	5.695	1.038
Adventure	3.975	1.333
Exploitation	2.353	1.115
Risk	5.195	1.261

Source: own study based on the survey ($n = 82$).

Metaphors of entrepreneurship are under the influence of certain well-established patterns and stereotypes in Polish culture. There were numerous negative metaphors indicating exploitation of others. “Exploiting other people” or “taking advantage of employees” were just a few examples of metaphors with negative, cynical or downgrading undertones.

However, findings illustrate the change in the perception of entrepreneurship among non-entrepreneurs in Poland. Although as we have expected in our introductory research most of the metaphors would reflect competition (“a race for money”, “a marathon race”), war (“war against taxes and tax council” and risk (“skating on thin ice” or “Russian roulette”), we may observe many optimistic metaphors. According to this perception entrepreneurship is oftentimes viewed a “key to success in life” or “building a fast path to the future you want”. It’s very often associated with good and innovative ideas, creativity, freshness and breaking stereotypes.

Some metaphors illustrate the approach to entrepreneurship as part of a lifestyle providing self-direction and self-control. Here comes the tendency to escape from competing and fighting, and move towards balancing and harmonizing own life in relation to business.

CONCLUSIONS

The metaphorical statements revealed the paradoxical nature of respondents' perceptions of entrepreneurship. A majority of the metaphors contained quite negative images. Especially in the least educated group sample they seemed to conjure up most negative images of entrepreneurship as some kind of modern day “slave owners” or exploiters.

We believe that metaphors play an important role in popularizing business and business related concepts and enhance our understanding in the nature of the different metaphors used in economics discourse. Because metaphors shape the way we think, our choices of metaphors are important. Gartner (1993) has suggested that “the words we use to talk about entrepreneurship influence our ability to think about this phenomenon”. Subsequently these thoughts are able change the discourse about entrepreneurship and direct actions toward entrepreneurial activities which ultimately affect culture and support the activation of entrepreneurial attitudes in social circles.

The main research limitation is the non-representativeness of the sample as well as small sample size ($n = 124$ at the first stage and $n = 84$ at the second stage). The results

presented in the article are very preliminary and further investigations in this field are needed. It seems necessary to conduct a survey among a larger sample of students and to include more explaining variables.

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Work-life Balance Decision-making of Norwegian Students: Implications for Human Resources Management

Remigiusz Gawlik, Gorm Jacobsen

ABSTRACT

Objective: The paper aims at identifying and assessing the significance of work-life balance determinants between the Youth of highly developed societies and its implications for human resources management on the example of Norway.

Research Design & Methods: The research target group consists of 236 respondents recruited among Norwegian tertiary education students. It employed literature analysis, two-stage exploratory research: direct individual in-depth interviews, survey based on a self-administered, web-based questionnaire with single-answer, limited choice qualitative & quantitative, as well as explanatory research (informal moderated group discussions).

Findings: The research on perceptions of determinants of quality of life and attractiveness of life strategies shows that in a country with relatively high socio-economic development level, such as Norway, differences in rankings do exist. They can be observed in relevance to both material and non-material QoL determinants.

Implications & Recommendations: The study revealed a need for deeper research on individually driven early decision-making of future employees and entrepreneurs. This will result in closer modelling of socio-economic phenomena, including more accurate adaptation to trends on the labour market and creation of new business models.

Contribution & Value Added: Research value added comes from the comparison of perceptions of quality of life determinants between countries at various stages of socio-economic development and its implications for human resource management.

Article type: research paper

Keywords: determinants of quality of life; work-life balance; qualitative-quantitative research; human resources; decision-making

JEL codes: I31, J22, J24, O15

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INTRODUCTION

The presented paper is a continuation of research on multicriteria decision-making processes of young people at the verge of entering what is commonly called “adult life”. Main stratification criterion was the stage of actual socio-economic development of respondents’ country of residence. Former stages have been described in (Gawlik, 2013, 2014; 2015; Gawlik, Titarenko & Titov, 2015). The importance of the topic lies in the fact that an early elaboration of individual hierarchy of determinants of human life quality, including work-life balance, can enhance the ability of Youth to make conscious choices about their professional careers and personal development. Most possibly it will result in improving their future work-life balance, which in turn bears implications for human resources management (HRM).

The objective of the paper is to present the perceptions of Norwegian respondents in the field of research mentioned above. It covers a well-developed country (both economically and socially), with high legal and societal standards, relatively low level of discrepancies in the division of welfare and corruption, strongly developed social services, relatively high level of safety, etc.

The research methodology employed included (i) literature analysis; (ii) two-stage exploratory research: direct individual in-depth interviews with groups of students (stage one); survey: self-administered, web-based questionnaire with single-answer, limited choice questions of qualitative & quantitative nature; two questions asked for ratings of significance of particular determinants of quality of life (QoL determinants), with hierarchy derived from the Likert-type scale (stage two); (iii) explanatory research (informal moderated group discussions). The research target group has been composed of 236 respondents recruited between Norwegian tertiary education students.

The following sections will present the results of literature analysis, research methodology, target group and sample, research findings and their discussion, as well as conclusions, suggestions for future deepening of the research and its possible limitations.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Quality of Life & Work-life Balance

Quality of life (QoL) studies derive from medical science, where they have been present for past 2 centuries. In Western psychological research the idea of balancing various aspects of one’s activity has first appeared in the works of Perls (1942; 1969) and Perls, Hefferline & Goodman (1951). Economic researchers acknowledged the problem quite early, starting from Smith pointing at the happiness of human beings coming from such qualitative determinants as health, wealth and conscience (Smith, 1759, p. 45). Recently, Anand, Krishnakumar & Tran (2011) searched for a generalisation of the understanding of the term welfare economics in Sen’s (1979; 1985; 1992; 1993; 1999) Capability Approach. They underline that additionally to the importance of happiness “so are the opportunities to do things that people have reason to value and these capabilities should be integral to the assessment of a person’s welfare” (Anand, Krishnakumar & Tran, 2011, p. 205). This broadened definition served as a base for one of currently most popular measures of economic development, which is the United Nations’ Human Development

Index (HDI). Numerous research aims to link individual human perceptions of QoL with various fields of economics, just to name Maslow (1954), Abel-Smith and Townsend (1965), Atkinson (1983; 2003), Sen (1985; 1992), Schuessler and Fisher (1985), Layard (2005), Stiglitz, Sen and Fitoussi (2009), Alkire and Foster (2011), Șerban-Opreșcu (2012), Chang, Travaglione and O'Neill (2015), Tang and Hornung (2015), Ulman and Šoltés (2015), Neumark and Muz (2016), Simkins and Peterson (2016), Uysal, Sirgy, Woo and Kim (2016) and others. Recently a growing number of publications with focus on combining private and professional life, i.e. work-life balance, can be observed (e.g. Adame, Caplliure & Miquel, 2016; Ren & Caudle, 2016; Russo, Shteigman & Carmeli, 2016; Zheng, Kashi, Fan, Molineux & Shan, 2016).

Socio-economic Development

Despite the presence of the term in economic literature since at least three decades, it is hard to find one consistent definition of socio-economic development. Many attempts focus rather on defining the term through its various aspects, without proposing a consistent synthetic definition. Stec, Filip, Grzebyk and Pierscieniak (2014, p. 505) state that socio-economic development is “a series of changes in a country’s socio-economic life that leads to improvements in human life as well as a better organization of structures and processes taking place in a given country”. Although many measures of singular aspects of socio-economic development level can be found in literature (Khan, 1990), the researchers still argue about the composition of an aggregate index. Again, an interesting attempt in this field has been presented by Stec *et al.* (2014).

As most reflections on socio-economic development mention its sustainability as an important factor, it is justified to explain this term as well. Urbaniec (2015, p. 120) quotes the definition of sustainable development by the World Commission on Environment and Development, which says that “sustainable development is defined as one that seeks to meet the needs of the present generation without compromising the ability to meet the needs of future generations”. Ginevičius, Gedvilaitė and Bruzė (2015, p. 142) state that: “the sustainability of (...) any (...) social-economic system is usually analysed in terms of three aspects: economic, social and environmental. (...) Each of these aspects can only be defined by multiple indicators since each aspect constitutes a complex and integrated process which in practice manifests multiple characteristics, features, etc.”

Socio-economic development can be operationalised as a set of features that is assured by a country. Signals of its high level in Norway came from the following: (i) general efficiency of the socio-economic system (i.e. private and public sector give efficient solutions to citizens – private sector in market goods, public sector in social services); (ii) high societal standards (awareness of value of democracy and freedom, high transparency in public and private sectors, confidence-based children education, critical attitude towards information and individual happiness perceived as important values); (iii) high material standard of living (high level of income and business capitalization, but also relatively flat distribution of income; transparency); (iv) feeling of security provided by the welfare state (easily accessible education and healthcare, reliable retirement pension system, developed infrastructure, support in case of unemployment or business failure); (v) equal opportunities for all citizens in various fields of professional activities all over the country (balanced regional development outside the Capital, similar income level regardless of branch of industry, entrepreneurship support with focus on business,

not on field of activity – industry neutral policy); (vi) accessibility of public service to all citizen (regardless the age, race, religion, gender, disabilities, etc.); (vii) tolerance for limited occasional waste of resources, including human ones (not laziness, but acceptance of human fallibility); (viii) different expectations from public and private sector (e.g. private sector should rise the efficiency in use of resources, public should focus on quality of service); (ix) different measures of efficiency for private and public sector (e.g. in public sector, the role of material element is to keep sustainability of public service, but quality of service lies elsewhere – in private sector growth of material resource is the main aim; customer satisfaction not always credible in public sector; the ratio of public/private providers differs between sectors – e.g. education could be partially privatised, health care much less); (x) coexistence of traditional and social forms of entrepreneurship; (xi) acceptance of changeability of social preferences in time.

Last two determinants need clarification. While discussing entrepreneurship Žur (2015, p. 77) explains that: “the major difference (between traditional and social entrepreneurship) 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”.

Jungeilges and Theisen (2008, p. 1110) notice that: “social preferences (of individuals, e.g. work-life balance decision-making) are not necessarily stable. Rather, they may evolve over time as a complicated function of socio-economic conditions experienced in the past and future socio-economic prospects”.

Human Resources Management

Pocztowski (2008, p. 33) defines Human Resources Management (HRM) by explaining the notion of human resource: “people are not a resource, but dispose of a resource – an entity of embodied features and characteristics, which allow them to perform various roles in an organization”. Huselid, Jackson and Schuler (1997, pp. 172-173) divide HRM into technical and strategic, where: “technical HRM activities (...) include recruiting, selection, performance measurement, training, and the administration of compensation and benefits, (whereas) strategic HRM activities (...) involve designing and implementing a set of internally consistent policies and practices that ensure a firm’s human capital contributes to the achievement of its business objectives (...) and include team-based job designs, flexible workforces, quality improvement practices, employee empowerment, studies designed to diagnose a firm’s strategic needs, and planned development of the talent”.

Jackson, Schuler and Jiang (2014, pp. 3-5) see the main qualities of strategic HRM in focusing on HRM Systems, which are collectively managed and developed by managers, HR professionals and company employees; this in turn provides a contextualization of whole HRM; additionally, assessment of HRM effectiveness is provided from various angles by internal, multiple stakeholders. In technical HRM effectiveness evaluation comes from external stakeholders, such as the government and professional organiza-

tions (Huselid, Jackson & Schuler, 1997, p. 172; Baron, Jennings & Dobbin, 1988; Tolbert & Zucker, 1983). This study refers rather to the strategic HRM concept.

Between most important elements of the human resource Pocztowski (2008, p. 33) enumerates: “the knowledge, capacities, abilities, health, attitudes, values and motivation (and underlines further that) the owners of human resource are particular employees and this is for them to decide about the level of involvement of this resource at work”.

This limits the power of an organization over human resources, which in turn increases the role of individual motivation of particular employees in overall success of endeavours of their business organization. Alfes, Shantz, Truss and Soane (2013, pp. 330-331) enumerate four areas where HRM interferes with favourable individual and organizational level outcomes, by saying: “first, it has been suggested that firm-level outcome variables may in fact be too distal to assess the impact of micro-level HRM interventions (...); second, in order to examine the influence of HRM practices on employee behaviour (...) it is important to focus on how employees perceive those practices, rather than relying on accounts of the intentions behind HRM practices at a strategic level (...); third, further research is needed to unearth the mechanisms through which HRM practices impact upon individual behaviours (...); fourth, (...) research has yet to take into account how moderating variables might affect the relationship between engagement and individual behaviours”.

At the same time Kehoe and Wright (2013, p. 367) mention that: “studies of the HR-performance relationship have provided limited insight into the effects of high-performance HR systems on the more proximal employee outcomes that they are likely to affect most directly”. Finally, Gries and Naudé (2011) propose a model linking entrepreneurship and human development, in which they derive the occupational choice of owners of human resource from their individual assessment of entrepreneurial functioning, including the ratio between entrepreneurial and non-entrepreneurial activities.

Recently, a growth of interest in assuring the sustainability of human resources by linking HRM with social well-being (including QoL and work-life balance) can be observed (e.g. Boreham, Povey & Tomaszewski, 2016; Kirk, 2016; Lub, Bal, Blomme & Schalk, 2016; Parakandi & Behery, 2016; Presbitero, Roxas & Chadee, 2016). As individual perceptions and human capabilities are being increasingly perceived as crucial for effective HRM, HR managers should focus on motivations, perceptions and preferences of their future employees. It is though crucial to analyse their decision-making patterns, including work-life balance and preferred life strategies.

MATERIAL AND METHODS

The presented research was carried out in Norway in order to provide data for the model from a socio-economically developed society (former research focused on countries at different stages of socio-economic development – Russia and South Africa). The target group of the research was young people permanently living in Norway, that are in the final period of their education and are planning to start their professional life in the nearest future or recently did so. The research sample has been composed of 236 respondents recruited among Norwegian tertiary education students. Respondents were affiliated as regular students of the University of Agder (from Kristiansand and Grimstad

Campuses) and of Lillehammer College. Their background education varied, although economics and social sciences were predominant. The questionnaire has been addressed to all students of mentioned institutions, but the participation in the research was voluntary. A clear request about a serious and in-depth approach to the questionnaire has been formulated. No participation incentives of any kind have been proposed.

The main research hypothesis states that an early elaboration of individual hierarchy of QoL determinants, including work-life balance, can enhance the ability of Youth to make conscious choices about their future professional careers and personal development.

The research methodology consisted of three consecutive steps. Firstly a search for available scientific literature on the matter has been performed, with a special focus on socio-economic development, QoL determinants, work-life balance and specifics of HRM decision-making. In second step a two-stage exploratory research has been performed. Direct individual in-depth interviews with groups of students aimed at providing the authors with general ideas on their perceptions of social, economic and geopolitical environment they live in. In order to obtain a more structured knowledge, a self-administered, web-based questionnaire followed. The survey was composed mostly of single-answer, limited choice questions. In order to provide a possibly large insight, as well as data for future application of Analytic Hierarchy Process modelling some of them were of qualitative, other of quantitative nature. Two of the questions asked for ratings of significance of particular QoL determinants. In one case the answer gradation was based on a Likert-type scale, in the other it requested to group answers in a hierarchy of descending order. Finally, explanatory research followed. Informal moderated group discussions on particular questions and predominant answers aimed at deepening authors' understanding of respondents' motivations and decision-making patterns. This part of research allowed to deepen the answers to the questionnaire and place them in a wider societal context, which is the main strength of the presented research.

The main limitation of applied research methodology is the mixed nature of decision-making determinants, which are both qualitative and quantitative. In order to overcome this problem the AHP methodology, which allows to transpose qualitative criteria into quantitative data has been selected for future elaboration of the model. Another weakness is the composition of research sample from University students, which can limit the findings to questioned part of the population. Explanatory research stage repeatedly undertook this issue to discover whether one can extrapolate the findings on a larger Youth sample that the one investigated here.

Findings limitations can be explained by a quote from Jungeilges and Theisen (2008, p. 1092) who observe that: "it may be very hard to describe the multitude of differences between societies, differences in social background, and differences in future prospects, by a manageable set of constraints on individual policy choices (and therefore) a coherent theoretical framework is needed for designing experiments of individual choices between different policies, and for interpreting the results from such experiments".

Throughout the presented research the authors were aware of the specifics of individual preferences on socio-economic conditions in multicriteria decision-making, i.e. differences in constraint (unconstrained preferences and meta-preferences), stability of preferences over time, the role of socialization and internal or external influences in the

process of formation of preferences, social choice capability and limitations and others (Jungeilges & Theisen, 2008, pp. 1092-1094). These issues have been discussed in a study on the formation of social preferences by Jungeilges and Theisen (2008).

RESULTS AND DISCUSSION

Outcome from Exploratory and Explanatory Research

Out of 236 respondents 44% of the students were males (103 respondents – “r.”) and 56% were females (133 r.). Their age varied from under 20 (61 r. = 26%), through 20-25 (140 r. = 59%) and 26-30 (11 r. = 5%), until above 30 (24 r. = 10%) – therefore the biggest number of answers have been obtained from students aged between 20 and 25. This can be explained by the countrywide availability of tertiary education system for alumni of secondary education. The prevailing majority of respondents were from Norway (233 r. = 99%), with 1 from Russia, 1 from a non-EU country and 1 who skipped this question).

Almost 6% (13) of respondents finished secondary level of education, close to 3% (6 r.) finished additional vocational training, 24% (57 r.) held a Bachelor title and 1% (2 r.) had a Master. 55% of respondents (130 r.) were still students of a Bachelor Programme and 12% (28) were Master Programme students. No respondents held a Doctor title. Most of respondents were part-time employed (50% = 118 r.), 41% (97 r.) were unemployed, an equal number was self-employed and permanently employed (4% = 10 r.). One person skipped that question. The distribution of function of work experience in time was quite flat, with 27% (63 r.) with no work experience at all, 12% (28 r.) with less than 1 year, 25% (58 r.) with 1-3 years, 18% (42 r.) between 3-5 years and 19% (44) with more than 5-year work experience. One respondent skipped that question. A quite high level of students with work experience (around 73%) can be explained by a relatively high availability of work posts for young people. Another explanation comes from a general willingness of Norwegian Youth to cover at least a part of their maintenance costs when studying on their own. It is important to underline that this need is rarely coerced by the income level of their parents (provided easy accessibility of educational grants), it comes rather from the need for independence, understood *inter alia* as responsibility for one's own keep.

The housing situation of the respondents was the following: 9% (21 r.) lived in rural areas, almost 31% (72 r.) in cities below 50.000 inhabitants, 55% (129 r.) in cities between 50 000 and 100 000 inhabitants, close to 6% (13 r.) in cities between 100 000 and 500 000 inhabitants and 1 person (less than 0,5%) in a city above 500 000 inhabitants. 15% (35 r.) still lived with their parents, 23% (55 r.) with their partner, surprisingly only 12% (29 r.) in their own flat, 3% (7 r.) were sharing their own flat with other people. Co-renting an apartment with other people was most popular (40% = 95 r.), University hostel was inhabited by 6% (14 r.). One person skipped that question.

Questions about the income gave the authors a first insight into perceptions of respondents. The monthly income of 16% (37 r.) was below 300€, 12% (29 r.) earned between 300 and 500€, 50% (117 r.) between 500 and 1000€ and 22% (52 r.) above 1000€. One respondent skipped that question. Interesting to notice was that at very high daily upkeep in Norway income satisfaction of Norwegian Youth seemed to be quite reasonable: 1% (2 r.) assessed their monthly income as very high, 9% (22) as rather high, 45%

(106 r.) as appropriate, 32% (76 r.) as rather low and 12% (29 r.) as very low. 1 respondent skipped that question. This means that however 44% of respondents assessed their monthly income as not sufficient, 56% stated the opposite. This in turn means that despite high costs of living and a general tendency for understating income perceptions, the majority of respondents were happy with their earnings.

Additional information pointed at sources of income: for close to 6% (13 r.) it was respondent's parents, for the same amount it was their partner, around 50 % received a scholarship and a government educational loan from Lånkassen (118 r. altogether), 10% (24 r.) a bank loan, 25% (60 r.) were living on their own savings and 3% (8 r.) pointed at combinations of the above (with two single mothers receiving additional state aid). Also the income expectations after graduating were reasonable (taking into account their education, market conditions and salary levels): 1% (2 r.) were expecting a salary below 500€ per month, same amount targeted at 500-1000€, 6% (15 r.) at 1000-2000€, and a similar amount of 47% (110 r.) and 45% (106 r.) would be happy respectively with 2000-4000€ and more than 4000€ per month. One respondent skipped that question. At the same time 8% (19 r.) saw their income level as of utmost importance for their QoL, 41% (97 r.) as highly important, 44% (103 r.) as important and 7% (17 r.) as not important. Nobody marked "not at all important" option.

Insight into respondents' perceptions followed with individual assessment of their free time. Also here the majority of respondents showed satisfaction, with almost 78% being happy in this area. 9% (22 r.) declared to have a lot of free time, 11% (25 r.) rather a lot, 58% (137 r.) enough and only 17% (40 r.) rather little or very little (5% = 12 r.).

The future professional position was important to the outstanding majority of the respondents (almost 95%), with 12% (29 r.) declaring it to be most important, 47% (112 r.) as highly important, 36% (84 r.) as important and only for 4% (9 r.) as of little importance or not important at all (1% = 2 r.). Another strong preference has been observed for the place of family in respondents' lives. 26% (61 r.) perceived family as of utmost importance for them, 61% (144 r.) as one, but not unique, most important parts of their lives, 10% (24 r.) declared its importance as equal to other areas and almost 3% (6 r.) declared themselves as not family oriented. Nobody stated absolute indifference about family, although one person skipped that question.

Respondents' observations about the society proved to be interesting, too. 4% (10 r.) felt confident only inside the Norwegian society. The vast majority could consider living in another society (almost 94%), although for 34% (80 r.) it could prove to be difficult. 53% (122 r.) could easily change their society, 7% (16 r.) did not see society as important to their QoL and for 2% (4 r.) did not define themselves as part of any society. It has to be explained, that the term "society" has been freely defined by the respondents, with a general guideline as their living environment, including their entourage, customs, tradition, culture, language and anything else that could help determining it.

The core of presented research were the rankings of significance of QoL determinants by Norwegian students. The respondents have been asked to rate the relevance of each QoL determinant with regard to its relevance to their QoL. The rankings were based on a 5-point Likert-type scale, where 5 is very important and 1 is not important at all. The sample size was n=236, but not every question has been answered by every respondent. Therefore a total score has been calculated for each determinant. Its calculation modus

was the sum of products of the number of students that attributed this particular determinant with a certain rank and its value. Results of significance ranking of QoL determinants by Norwegian Youth can be found in Table 1 below (sorted in descending order). Optional additional answers of four respondents that ranked as most important their relationship with God, love, wealthy spouse or gender equality have not been mentioned.

Table 1. Significance of quality life determinants in the eyes of Norwegian Youth

Determinants of quality of life	Distribution of answers (in %) along the established rank scale					Total score
	1	2	3	4	5	
Keeping contact with family and friends	0.93	3.74	7.01	22.90	65.42	959
Having a stable job	0.93	1.87	8.88	26.64	61.68	955
Having an interesting job	0.93	0.93	10.28	28.50	59.35	951
Ability to obtain a well-paid job	0.47	1.88	14.08	39.91	43.66	904
Living without fear about the future	1.40	2.80	14.95	34.58	46.26	902
Being able to develop professionally	1.88	1.41	16.90	43.19	36.62	876
Ability to save money	1.88	4.23	15.02	40.38	38.50	872
Free and safe travelling in an open World	2.35	3.76	21.60	27.23	45.07	871
Being able to pursue self-development	0.93	3.27	21.03	40.19	34.58	865
Being able to combine private & professional life	3.29	6.10	22.07	26.29	42.25	848
Having free time	0.93	6.54	22.43	35.51	34.58	848
Having basic access to information	1.41	4.23	22.07	40.38	31.92	846
Predictability of consequences of own actions	2.83	2.36	21.23	42.45	31.13	841
Retirement pension level in the future	3.29	4.23	22.54	34.74	35.21	840
A proper work-life balance	2.80	3.74	23.36	38.32	31.78	840
Working accordingly to own qualifications	1.87	5.61	21.03	45.33	26.17	831
Geopolitical safety and stability	2.82	6.10	28.17	27.70	35.21	823
Level of income	0.47	3.27	26.64	50.93	18.69	822
Living accordingly to high legal and societal standards	4.27	4.27	28.91	31.75	30.81	803
Being useful to the society	4.67	7.48	24.30	40.19	23.36	792
Cost of living	2.35	7.04	50.23	30.52	9.86	721
Not being victim to "information overload"	5.61	9.81	45.79	30.84	7.94	697
Level of debt to pay back after graduating	7.98	19.72	37.56	25.35	9.39	657
Level of risk related to financial investments	11.68	16.36	45.79	20.56	5.61	625

Source: own elaboration based on research results.

Interpretation of the results: after a minutious analysis some groups of factors can be derived from the general set. Although a general division between material and non-material determinants seems to be the most obvious, respondents' opinions obtained in explanatory research persuaded the authors to adopt thematic grouping criterion. Groups of determinants have been presented in descending order respectively to the average ranking of a single determinant from each group, calculated as the sum of total scores of determinants from the given group and divided by their amount (values in brackets). These are: (i) safety, stability and certainty (891,8); (ii) continuous self-

development (876,5); (iii) work-life balance (845,3); (iv) freedom and society (784,5); (v) finance (773,3). Grouping of determinants that could be attributed to more than one group finally occurred on basis of group discussions with respondents lead in explanatory research phase.

In the first group, “safety, stability and certainty”, “Keeping contact with family and friends” has been ranked as most important. 2nd highest importance has been granted to “Having a stable job”. A correlation can also be observed with “Living without fear about the future” that has been ranked 5th. Other determinants from this group have been ranked lower: “Free and safe travelling in an open World” as 8th, “Predictability of consequences of my actions” 13th, “Geopolitical safety and stability” 17th. Nevertheless, the average individual ranking of determinants from this group makes it the most relevant for respondents’ QoL. This can be due to the phenomenon brought up in explanatory research – a general feeling of safety omnipresent in Norwegian society. Respondents pointed at the welfare state as its cause.

The group ranked as second, “continuous self-development”, consisted of such determinants as “Having an interesting work” (ranked 3rd), “Being able to develop professionally” – 6th, “Being able to pursue self-development” – 9th, and “Working accordingly to my qualifications” – 16th. A high level of self-awareness of Norwegian society can be backed by statistical data, putting Norway on the very top of 2015 Human Development Index (HDI) list and at the same place of Inequality-adjusted HDI by the United Nations Development Programme (UNDP, 2015).

“Being able to combine private and professional life” (10th), “Free time” (11th) and “A proper work-life balance” (15th) composed the third group, “work-life balance”. Average individual ranking of determinants keep it closer to groups (i) and (ii), than to groups (iv) and (v). In 2015 Norway opened the Legatum Prosperity Index list as the country that provides the highest aggregated level of wealth, economic growth, education, health, personal well-being and QoL out of 142 countries (Legatum Institute, 2015).

“Freedom and society” was composed of “Having basic access to information” (12th), “Living accordingly to high legal and societal standards” (19th), “Being useful to the society” (20th) and “Not being victim to information overload” (22nd). The highest ranked determinant in this group falls in the middle of ranking only, which justifies the low average-based overall rating of this group of determinants. It can be explained by the fact that freedom and societal values tend to be underestimated until their lack becomes visible. Norway placed also 2nd in 2015 Press Freedom Index ranking (Reporters Without Borders, 2015).

Last in ranking was “finance”, composed of “Ability to obtain a well-paid job” (4th), “Ability to save money” (7th), “Retirement pension level in the future” (14th), “Level of income” (18th), “Cost of living” (21st), “Level of debt to pay back after graduating” (23rd) and “Level of risk related to financial investments” (24th). The lowest grade of income-related QoL determinants can be explained by a very high financial standard of living in Norway, with high income per capita, low income distribution discrepancy and a multitude of social mechanisms preventing poverty. In World Bank’s GDP per capita based on purchasing power parity 2015 ranking Norway reached 8th position with 65 614,5 USD of yearly PPP-based per capita income (World Bank, 2015). Moreover, respondents pointed

also at non-stigmatization of business failures as being part of the entrepreneurial mechanism.

It was interesting to notice, that although some material QoL determinants have been ranked quite high, generally their individual average ranking was the lowest. At the same time, in a similar survey lead in Russia, even though determinants linked with stability, certainty and confidence have been ranked very high, income related factors were perceived as more significant for high QoL. Figure 1 shows the above ranking in a graphical way (in descending order of total scores).

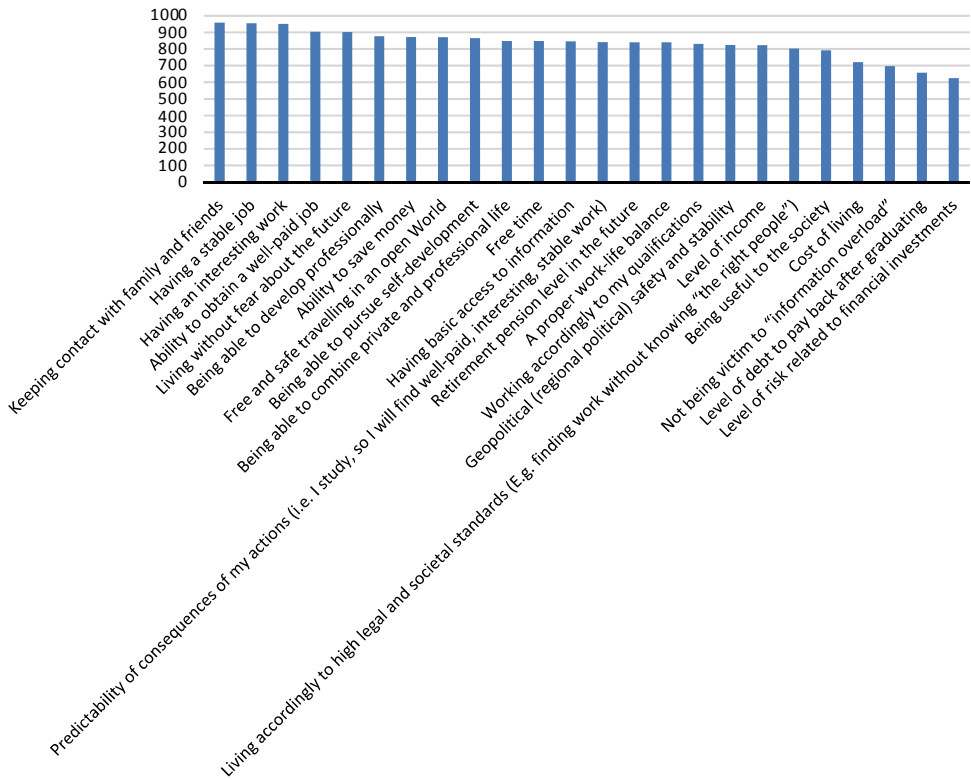


Figure 1. Ranking of quality of life determinants – graphical presentation
 Source: own elaboration based on research results.

In the last step the respondents had to sort alternative life strategies accordingly to their attractiveness in relation to their rankings of QoL determinants from Table 1. The distribution of answers presented in Table 2 has been based on total grade of life strategy attractiveness, calculated similarly to total scores above. The scale has been reversed, though, as the lowest grade means the most attractive life strategy. It can be seen that the family-oriented strategy is perceived as the most attractive, whereas income-oriented comes only second, almost at the same level as the career-oriented one. Time-oriented strategy, targeted at maximizing the amount of respondent's free time has been ranked fourth in attractiveness. Apparently only singular respondents felt attracted by living outside the societal mainstream. Explanatory research

gave some insight into the reasons for such a grading. In fact, Norwegian Youth on their way to independence feel a strong financial, substantive and psychological support from various parties, including family, friends, public institutions and private sector. Norwegian respondents clearly stated that the multitude of opportunities creates a societal pressure (at home, at school, but also from their friends) to profit of it at any cost – because everybody does, because it is available. Strangely enough, respondents underlined that this rises the fear of failure and deepens the feeling of defeat in case of one. This in turn explains the attractiveness of the family-oriented strategy (where success usually is not the decisive measure), but also of the “opting-out” strategy – as an escape solution for some respondents. A relatively low attractiveness of free-time strategy can be partially explained by the fact that this resource starts becoming valuable with its growing scarcity – and it has been ranked only 11th in terms of relevance for QoL. In explanatory research most respondents assessed their actual amount of free time as sufficient.

Table 2. Attractiveness of life strategies for Norwegian Youth

Life strategies	Distribution of the answers (in %) along the established grade scale					Total grade
	1	2	3	4	5	
Income-oriented (constantly increasing your salary)	47.00	24.50	14.50	11.00	3.00	397
Family-oriented (working only until your job is not interfering with your family obligations)	16.16	28.28	31.82	19.19	4.55	530
Career-oriented (becoming “somebody important”)	25.37	19.90	21.89	17.41	15.42	558
Time-oriented (maximizing the amount of your free time)	10.66	24.37	24.37	35.03	5.58	592
Opting – out from the entire socio-economic system (living outside the mainstream)	3.11	3.63	7.25	16.06	69.95	861

Source: own elaboration based on research results.

Graphical presentation of these results can be found on Figure 2 (in ascending order of total grades, from most to least attractive).

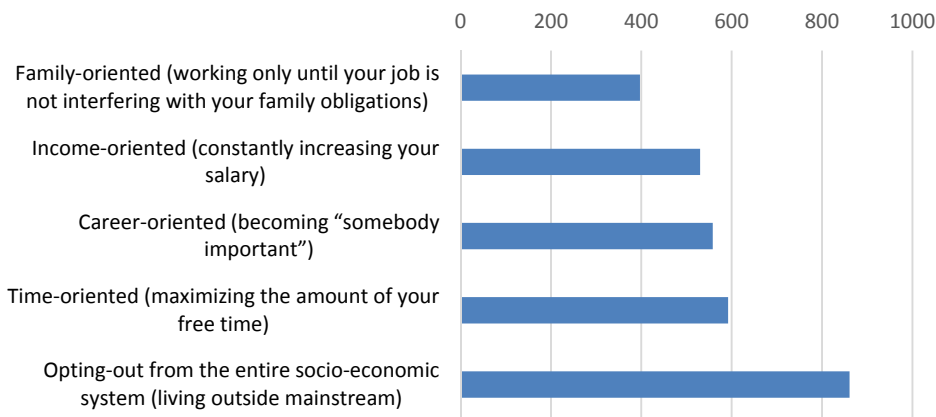


Figure 2. Total grades of life strategy attractiveness (from most to least attractive)

Source: own elaboration based on research results.

The authors are aware of the fact that presented research results can be perceived as relevant for the questioned target group only. Nevertheless, if perceived in frames of weak signal approach, obtained answers (especially from explanatory research) can point at possible features of the whole generation of actual Youth. Holopainen and Toivonen (2012, p. 198) summarize Ansoff's (1975) weak signals approach as: "an alternative or supplement to strategic planning (...) that (...) is reasonable in the case of incremental development of historical trends, but it is not successful when dealing with surprises".

In fact, the phenomena actually forming the employees and entrepreneurs of the nearest future are not linear anymore, their rather bear a non-linear, shock-susceptible characteristic, that indeed could be defined as a recurring set of "surprises" in decision-making micro- and macro-environment. In the opinion of Holopainen and Toivonen, (2012, p. 198): "in circumstances where the rate of change is continuously accelerating, a more reasonable approach is to increase strategic flexibility and determine which actions will be feasible when the detailed information becomes available. This kind of approach can be called response to weak signals". Adopting the weak signals logics to work-life balance implies the need for adaptation of company's HRM practices.

Implications for Human Resources Management

Presented research on QoL determinants has brought us to conclude that higher levels of motivation, entrepreneurship and responsibility at work can be achieved by providing young people with: (i) freedom in their decision-making; (ii) a working environment that allows the employees to develop their natural capabilities and abilities; (iii) safe-landing mechanisms for potential failures; (iv) fair salaries with reasonable discrepancies between highest and lowest income levels; (v) fair treatment in working environment; (vi) support (or do not discouragement) of entrepreneurship.

Obtained research results confirmed the hypothesis saying that an early elaboration of individual hierarchy of QoL determinants, including work-life balance, can enhance the ability of Youth to make conscious choices about their future professional careers and personal development and as such contribute to higher efficiency of their professional activities. Therefore HR managers should consider a more individualistic approach in their search for independent and effective personnel. Especially explanatory research responses pointed at the need of Norwegian Youth to be approached individually, leaving space for particular combinations of work-life balance determinants as a strong motivation mechanism at work.

Conducted research has also shown that preferred levels of above factors are individual specific, therefore managers, including HR specialists, should adopt a more individual-focused approach to their actual employees, as well as to the candidates for work posts. It definitely is more resource consuming that a standardized approach to human resource management, but allows to expect a higher efficiency in solving unconventional tasks. Future research could determine to which extent this general remark stands for various working environments and for different positions.

In parallel, at societal level the policy-making should focus on: (i) assuring an optimal balance between activities assured by private and public sectors; (ii) improving the societal standards by educating on democracy and freedom, exacting transparency in state institutions and private companies, fighting corruption, building confidence in citizens since early childhood through positive cognitive education, supporting independent and

reliable media; (iii) creating development opportunities for entrepreneurs; (iv) preserving equality in access to public services, but at the same time guard the system from misusers; (v) assuring the sustainability and quality of public services by grading the priorities in distribution of public goods and amounts to be distributed to each individual (re-defining the equality rule); (vi) creating service-specific efficiency measurement models, including both material and non-material determinants of service quality; (vii) providing space for all forms of development (in business and public sphere, oriented on material and non-material added value).

CONCLUSIONS

The presented research was the next step towards creation of a multicriteria AHP-based model that would support young people in their early-career decision-making. Research methodology consisted of a literature analysis, exploratory and explanatory research with application of direct interviews, a web-based survey and moderated group discussions.

The research target group has been composed of 236 respondents recruited between Norwegian tertiary education students. Research placement in Norway aimed at giving insight into the significance of QoL determinants and attractiveness of various life strategies in a socio-economically developed society. Obtained rankings allowed to draw following implications for HRM practice: (i) a potential for growth of employees' efficiency and motivation exists, but in Norwegian reality requires a more individualized, person-oriented managerial approach; (ii) it can be achieved by offering each employee a suitable, individual specific combination of work-life balance determinants, based on his/her preferences; (iii) better results can be achieved if internal HRM processes in companies find support in economic and social policies of the government.

The substantial research limitation came from the research sample, although if perceived through Ansoff's (1975) weak signal approach, it can still provide some directions for future research. It should concentrate on analysing whether the individualistic HRM approach described in the present paper benefits the employees and their employer similarly at different work posts.

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The Changing Structure of Retail Industry: Case Studies on Competitive Advantage of Small Companies in Croatia

Blaženka Knežević, Dora Naletina, Mate Damić

ABSTRACT

Objective: There are two key trends in retail industry since 1990s till nowadays: rapid internationalization and intensive retail concentration. In such a dynamic environment, small companies are striving to preserve their markets and to maintain their business activity. The objectives of the paper are twofold: (1) to explain trends of retail internationalization and concentration and (2) to highlight the possibilities for improving the competitive ability of small retailers.

Research Design & Methods: The paper is based on analysis of secondary data available in research papers, studies and official statistics. Firstly, the consequences of retail internationalization and concentration are described. Then, the literature on competitive advantage creation is systemized. In addition, the case study method is used to illustrate successful strategies of competitive advantage creation.

Findings: In a changed retail market, small retailers seek the way to improve their competitiveness. As suitable competitiveness strategies, authors describe: (1) retail alliances and (2) differentiation by assortment.

Implications & Recommendations: The key trends and their impact on small companies in retail industry are scrutinized. Recommendations to small retailers how to adjust to new market conditions, together with some practical examples, are given.

Contribution & Value Added: The paper gives an insight into dynamics of changes in retail structure. Retail alliances and differentiation by assortment are described as two key streams of competitiveness improvement suitable for small retailers.

Article type: research paper

Keywords: retail internationalization; market structure; competitiveness; small retailers

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INTRODUCTION

In their definition of retailing, Kent and Omar (2003, p. 8) emphasize that retail industry consists of business activities relating to selling goods and services to final consumers. There are numerous forms, formats and organizational set-ups observed in retailing industry from a factory outlet and outdoor market sales, via convenience stores, supermarkets, chain stores and hypermarkets to the vending machines and electronic or mobile (virtual) retailing, including multichannel retailing as well.

Gilbert (2003, p. 2) pointed out that since 1960s retailing has become an important business activity in national economies that has an increasingly greater impact on the society due to its increasing role in employment and GDP creation.

In the EU retail industry is an important source of employment and influential factor of GDP creation. In addition, Knežević, Renko and Knego (2011) point out that almost a fifth of all companies registered in the EU operate in retail industry.

Tjordman (1995), Alexander (1996) and Dawson (2001; 2006) in their studies emphasize several trends that are influencing the overall retail industry and other industries as well. There are two dominant trends that influence the dynamics and structure of retail markets. First is internationalization, and the second is concentration of retail markets. Both trends have a detrimental influence on the position of small retailers.

In this paper, based on secondary data, we are going to explain both mentioned trends and their impact on small retailers. Then we will address possibilities of improvement of their competitive position. And, finally, we will describe good practices where application of the theory on competitive positioning brought small retailers to positive business results. For this purposes, the case study method is going to be applied on small, but successful, retailers' practices in Croatia.

LITERATURE REVIEW

Sources of Competitive Advantage

The key element of each firm is the pursuit of competitive advantage, especially today when firms are faced with increasing global competition and decreased growth (Vrdoljak Raguz, Jelenc & Podrug, 2013). Tipurić (1999) points out that the competitiveness is a function of at least two groups of variables: favorable local, national and industrial conditions in which firms originate and develop, and effort to achieve results better than the competition. What is more, Wach (2014b) concludes that the firm-level international competitiveness is a very important research topic in business studies because even an internationalized local firm can compete with foreign or global competitors.

Competitive advantage exists if the following conditions are accomplished (Tipurić, 1999):

1. Customers are firstly noticing a constant difference in the important characteristics of a product/service and product/service competition.
2. The difference between the important features of the firm's product/service and product/service competition is a direct consequence of the gap firm's capabilities and its rivals.

3. The difference between the important characteristics of the firms' product/service and products/services of competitors and skills gap between the firm and its competitors can be expected in the future.

Competitiveness of a firm in the world market is bound with its ability to respond to immediate changes of the market and to hold out the position of the enterprise in it. The idea of the competitive advantage starts from creation and distribution of value. A firm has achieved competitive advantage when its influence predetermines economic changes in the market (Lazauskas, Bureika, Valiūnas, Pečeliūnas, Matijošius & Nagurnas, 2012).

In the last few decades in the literature of strategic management we differ industrial organization economics and resource based view (Kamasak, 2013). While the industrial organization economics theory states that performance variation of firms should be attributed to the structural characteristics of industries in which they operate, resource theory states that performance differences among firms are in relation with their internal resources.

Resource-based view (RBV) of the firm has been successfully used to explain long-run differences in firm performance that cannot be attributed to industry or economic conditions. RBV defines that firms are heterogeneous and that idiosyncratic, immobile, inimitable and intangible bundle of resources gives the firm an opportunity for competitive advantage (Habbershon & Williams, 1999). Firms' strategy and success is based on its resource profile (Coates, 2002). Resources that are forming the base of an existing firm's competitive advantage are rarely easy to identify from the outside, and even if identified, they are difficult to replicate (Lockett & Thompson, 2001). There are three reasons for imperfect imitability (Barney, 1991):

1. unique historical conditions,
2. casual ambiguity,
3. complex social phenomena.

Barney (1991) defines that firms obtain sustained competitive advantages by implementing strategies that exploit their internal strengths, through responding to environmental opportunities, while neutralizing external threats and avoiding internal weakness. A firm has achieved competitive advantage when it implements a value creating strategy not simultaneously being implemented by any other competitor (Barney, 2001). When competitive advantage can last for a longer period, then it is considered sustained competitive advantage. If firm's resources are valuable, rare, and imperfectly imitable and there are no strategically equivalent substitutes for them, then they hold potential for achieving sustained competitive advantage (Barney, 2001).

Competitive advantage is achieved through a combination of unique resources and capabilities that allow firms to establish nearly monopoly positions in their markets (Hamel & Prahalad, 1994). Competitive advantage is achieved through being ahead of your competition on price/cost, quality, delivery, product innovation and time to market dimensions (Li, Ragu-Nathan, Ragu-Nathan & Rao, 2006). With growing global competition it is difficult for companies to differentiate themselves solely on the traditional aspects of product and price. Therefore companies are forced to search for innovative ways to do business and adding value to their products (Pan & Nagi, 2009).

The central question in competitive strategy is the relative position of the firm within the industry. Positioning determines whether the firm's profitability is above or below

the industry average. Therefore, a firm that is well positioned can earn higher rates of return, even if the industrial structure is unfavorable (Porter, 2008). Firms must choose a strategy in order to create a unique and defendable position in the industry. Porter (2008) distinguishes two basic types of competitive advantage a firm can have: low cost or differentiation. The two basic types of competitive advantage combined with the scope of activities for which a firm seeks to achieve them, lead to three generic strategies for achieving above average performance in the industry: cost leadership, differentiation and focus (Porter, 1985). In addition to Porter, Miles, Snow, Meyer and Coleman (1978) identified three types of strategic direction that may be effective for a small business, referred to by the authors as the defender, the prospector, and the analyser. The defender-type involves the developing of a narrow product/market niche and the erection of barriers to protect it. Unlike the defender, the prospector is constantly scanning the environment for new opportunities, be their new products, services or markets. Finally, the analyser is a combination of the defender and prospector in that it simultaneously defends its niche while scanning for new opportunities.

While the strategy of cost leadership and differentiation refer to finding competitive advantage in a wide range of industrial segments, the focus strategy is based on a competitive advantage within a narrow industry segment (Porter, 2008).

If a firm wants pursue cost leadership, it must find and exploit all sources of cost advantage. Low prices cannot be sustained unless a firm maximizes its operational efficiency. Firm has to perform similar activities better than rivals and one way of doing so is to pursue a rigorous and relentless policy of cost cutting. The opening up of Eastern European markets and the integration process for Balkan countries has brought radical changes in service industry. In such a dynamic market in service sector, the low cost models in retail are changing from year to year due to changes in costs (rise and fall of oil price), regulatory laws from the EU to domestic countries and increase in competition (Rexhepi & Stringa, 2010). Murray (1988) stated that the client demand for products and services need to be price sensitive. The high cost of investment will act as barrier of entry and it will prevent small companies to follow cost leadership strategy (Wright, 1987). In the service sector, the low cost advantages could come from new process innovations, better learning curve, new service design, less time, less costs and fully reengineering activities based on economics of scale (Allen & Helms, 2004).

Rexhepi and Stringa (2010) defines that firms that follow cost leadership strategy in service sector should analyse the environment, target mass market, target price sensitive clients, then use control and coordination tools amongst leadership and middle managers combined with new information technology facilities to standardize services and then gradually expand.

Based on the above analysed theoretical concepts from the literature, we are going to discuss which strategies turned out to be successful for small retailers in Croatia, as Wach (2014a, pp. 42-43) concludes that strategies and strategic thinking is very important not only for big players, but also for small business.

MATERIAL AND METHODS

The analytical part of this study is divided into two parts. Firstly, we will explore the basic trends of the retail industry in Europe by using the quantitative approach based on sec-

ondary data. Secondly, we will identify strategies used by small retailers in Croatia by using the quantitative approach based on the case study method. Therefore, the objectives of the paper are twofold:

1. to explain trends of retail internationalization and concentration,
2. to highlight the possibilities for improving the competitive ability of small retailers.

Industry Analysis

As mentioned earlier, there are two rapid trends in contemporary retailing. One is retail internationalization and another is retail concentration. Those two trends bring many issues in front of small retailers who are trying to survive and to success in the market. In this paper we will give some definitions and data on those trends and we will explain key challenges for small retailers in given market conditions.

We will use the secondary data. The first source of data will be the websites of the selected retailers, where we will collect the info on their revenue, number of stores as well as mission and vision of the company. The other source of data will be direct observation in the retailers' stores, their product mix and how they are in line with their company's mission and vision.

Case Study

In the quest for recommendation to small retailers, in this part of the paper we will analyse the sources of competitive advantage. Furthermore we will discuss and explain two basic strategies of achieving competitive advantage successfully implemented in operation of small retailers in Croatia. The analysis will be conducted through case study research method. The case study research method is an empirical inquiry that investigates a contemporary phenomenon in its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 2013).

The advantage of the case study method is the understanding of a complex issue or object through detailed contextual analysis of a limited number of events or conditions and their relationships. The critics of the method regard the small number of cases as a problem when establishing a generality of findings, while some regard it useful only as an exploratory tool. On the other hand, a key strength of the case study method is the usage of multiple sources and techniques in the data gathering process. Researchers from many disciplines use the case study method to build upon theory, to produce new theory, to dispute or challenge theory, to explain a situation, to provide a basis to apply solutions to situations, to explore, or to describe an object or phenomenon. The advantages of the case study method are its applicability to real-life, contemporary, human situations and its public accessibility through written reports (Soy, 1997). For this case study evidence will be taken from the websites of small retailers and small retailers' associations and through direct observation in the small retailers stores.

RESULTS AND DISCUSSION

Changes in Retail Industry and their Impact on Small Retailers

Retail Internationalization

Retail internationalization is a process that can be observed in two dimensions (Knežević & Szarucki, 2012): (1) internationalization of retail activities such as sourcing and logistics, and (2) internationalization of retail formats or outlets in order to approach customers at non-domestic markets.

Despite the long history of retail internationalization in sourcing and logistics, since relatively recent times the European retail sector has seen substantial expansion of international operations towards consumers at foreign markets. The rapid increase in international activity of European retailers and the expansion in Europe of non-European retailers is one of several structural changes that have taken place since the late 1980s. In this period large firms have grown at a substantially faster rate than the sector as a whole (for more details refer to Knežević, Delić & Knego, 2014).

Knežević, Delić and Knego (2014) analyse data on Top 250 European retailers and discuss the present situation and trends at selected Central Eastern European markets. Upon given analysis, they claim that till 2000 at Visegrad markets (Poland, Czech Republic, Slovakia and Hungary) there were more than 10 large foreign retailers present per each country, while in Croatia the number of 10 large foreign retailers is exceeded with the delay of 5 years. In addition, they found that the number of large foreign retailers at given markets has grown since 2006 (Figure 1).

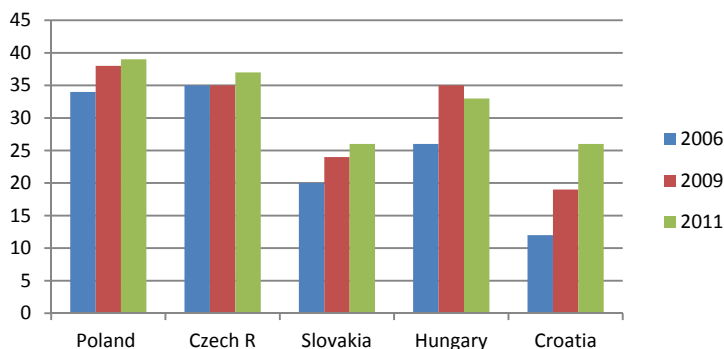


Figure 1. Total number of Top 250 global retailers present at selected Central and Eastern European countries

Source: adapted according to data at (Knežević, Delić & Knego, 2014, p. 119).

Retail Concentration

Concentration takes a place if one or a couple of leading companies grow above average growth rates within the industry. As Dawson (2006) points, leading retailers in the EU are growing above average comparing to other market players in this industry. According to the analysis of Knežević, Renko and Knego (2011), in the newest EU members retail concentration is one of key market trends taking a place in last two decades.

Knežević, Knego and Delić (2014) explain that concentration can be the outcome of the (a) rapid organic growth of one or several companies in the given market, or (b) mergers and acquisition taking place in a given market. Throughout the process of concentration one or several companies acquire larger and larger market share. This way they are getting better negotiation position towards suppliers and customers, better market position in comparison to competitors, their productivity per employee and per outlet grows, they have increased possibility to implement innovations and new technologies etc.

Concentration of a certain market can be measured. In EU literature, usually concentration CR n ratio is used to highlight how large market share is held by a certain number of companies (n). For instance CR5 concentration ratio indicates the market share held by the five largest companies at the market.

Several studies show that larger and larger proportion of the retail market is controlled by a small number of companies. For instance, Data given by the European Commission (2014, pp. 51-52) show that from 2000 till 2011 concentration ratios of EU grocery market grew significantly (Figure 2). Nonetheless, EU countries differ in the level of concentration of retailing market; the trend of the concentration growth is obvious in all countries with no exception (European Commission 2014, p. 50).

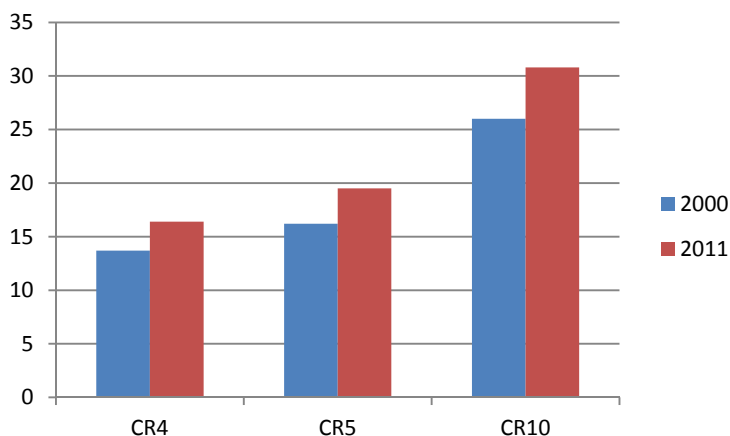


Figure 2. EU grocery retailing concentration ratios – comparison year: 2000 and 2011

Source: own calculation according to data available in (European Commission, 2014, pp. 51-52).

In Croatia, one of the newest members of the EU, the trend of retail concentration is expressed even more. Figure 3 shows concentration ratios for Croatian grocery retail market.

Not only large retailers are taking more and more retail market, but also, there is a change in the structure of retail formats. Smaller formats such as convenience stores are losing market proportion comparing to supermarkets and hypermarkets. This trend is observed around the EU (for more details refer to European Commission, 2014). For an illustration in Figure 4 we show data for Croatia grocery retail comparing years 2006 and 2012.

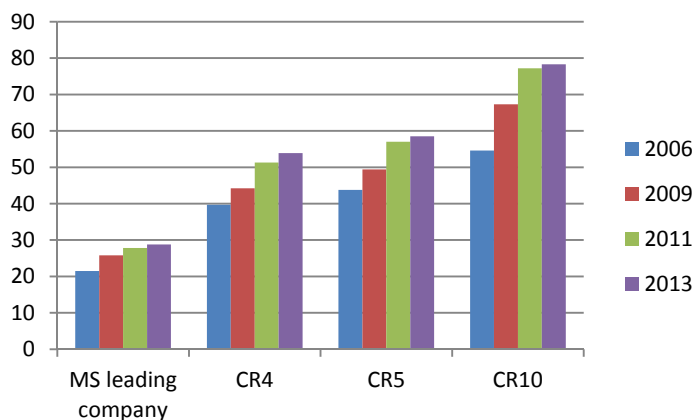


Figure 3. Grocery market shares in Croatia from 2006 to 2013

Source: adapted from (Knežević, Knego & Delić, 2014, p. 42).

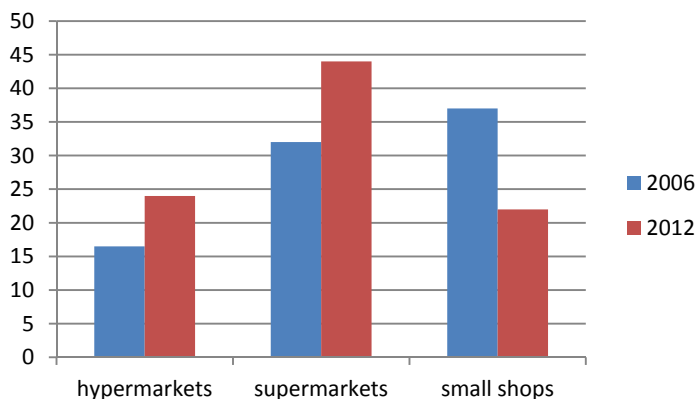


Figure 4. Market shares of grocery retail formats in Croatia (%)

Source: adapted from (Knežević, Knego & Delić, 2014, p. 45).

Key Challenges for Small Retailers

In the previously described market conditions where international retailers control larger and larger proportion of the market and where leading companies are taking larger and larger market shares, the average size of companies measured by the number of employees per a company is growing respectively in all EU countries, especially in newer EU members (Knežević, Knego & Renko, 2011). In addition, the number of small and medium retailing companies diminishes. Knežević, Knego and Renko (2011) analyse the situation in Croatia and draw a conclusion that, according to the number of enterprises classified by their size, the retail structure is becoming polarized. Namely, in Croatia out of all enterprises in retailing industry 42% are micro companies (less than 10 employees), 35%

are large companies (more than 250 employees); there are 16% of small companies (10 to 50 employees) and only 7% medium companies.

While overall productivity in retailing industry grows, in terms of revenues per employee for large retailers, small retailers are experiencing various issues in their operation and are forced to seek for survival strategies and policies. Knego and Knežević (2011) point to following issues faced by small retailers (Figure 5): (a) unfavorable procurement conditions, (b) lower turnover rate, (c) lower labor productivity, (d) lower gross margins and (e) higher sales prices.

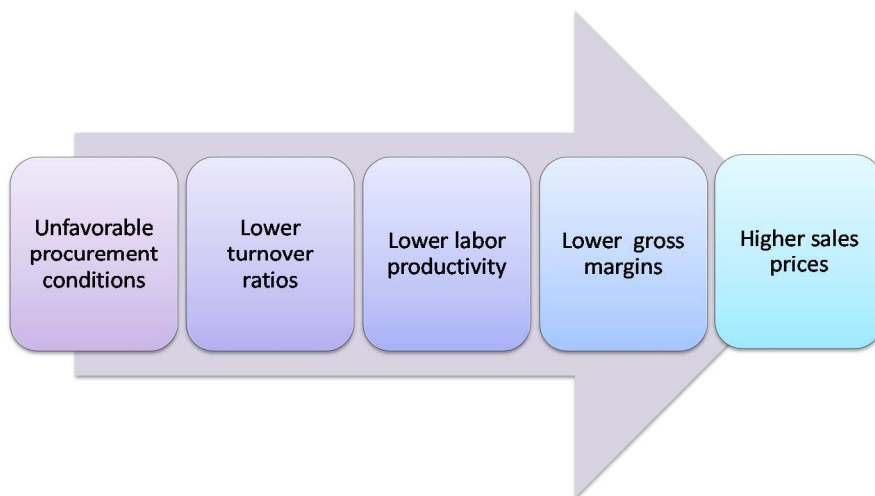


Figure 5. Problems of Small Retailers

Source: adapted from (Knego & Knežević, 2011, p. 3).

The unfavorable procurement condition of small companies is the result of their low negotiation power because of small quantities being purchased. Therefore, comparing to the large retailers they cannot negotiate with suppliers well and the consequences are higher input prices of goods and services and higher transport and warehousing costs comparing to large retailers. In addition, their negotiating skills are lower due to the fact of lower knowledge capacities of their employees because the majority of retailers cannot afford highly educated managers and employees. Moreover, small retailers often cannot approach the producer directly because of the existing relationships and contractual arrangements within supply chains, and they are forced use intermediate companies to purchase product and services which increases input prices even more.

On the other hand, lower turnover ratio is the result of lower capacities on their position towards consumers. Usually small retailers serve to the narrow geographic location and the number of potential customers is lower in comparison to large retailers' formats. To achieve quantity discounts from their suppliers, they are motivated to buy bulk quantities and usually, due to their lack of management knowledge and skills, they do not apply methods and techniques of inventory planning and management. Knego and Knežević (2011) analysed tradesmen (organized as small crafts) and retailers as legal

entities (retailing enterprises) and draw a conclusion that inventory turnover of tradesmen had never reached more than 60% of those in legal entities (retailing enterprises).

Lower labor productivity (measured by revenues per employee, see Knego and Knežević, 2011) is the direct output of lower revenues generated by small retailers in comparison to large companies which is the result of their limited market approach, limited knowledge and skills and limited resources available for technological improvement and innovation (in terms of processes, outlet and shop design, promotion, information technology implementation and utilization etc).

As a consequence of all above mentioned, the gross margin as the difference of revenues and cost of sold goods is significantly lower for small retailers. This forces small retailers to apply additional cost cutting policies which usually has detrimental influence on wages, shop and outlet design, lowering marketing activities, cutting the number of employees and lowering service offered, cutting investment in knowledge and skills development and information technology etc. In the longer run, such policies have damaging impact on their competition position and therefore, they should seek some other solutions for their survival. In the next chapters we will give some suggestions and examples of a different approach.

Due to higher input prices and higher operating costs, in comparison to large retailers, small retailers have higher sales prices. In Croatia, based on price study of 10 standard grocery products, in small shops owned by small retailers, on the average prices are 23,47% higher compared to the lowest available price offered by large retailer (note: own calculation based on data available in Knego & Knežević, 2011).

Retailers Associations as a Source of Competitive Advantage for Small Retailers

As a source for gaining competitive advantage by increasing the efficiency of procurement, in developed European countries for a longer time multi-firm associations of retailers are known (sourcing alliances) with buying groups in a special subform. In addition there are newer forms with developed service in purchasing and supplier marketing at European and global level (sourcing offices).

Multi-firm associations are communities of economically independent companies formed for the purpose of cooperation in purchasing, sales, investment and financing, and usually are established as separate companies (Tietz, 1993, p. 321). In retailing industry in Germany, they emerged at the turn of the 1960s and 1970s, when the medium-sized companies joined at the national level in order to achieve better performance in the market (Liebmann & Zentes, 2001, p. 281). Today they are not focused exclusively on the national market, but are oriented to cover a region, the continent and even global level. Buying groups, as a narrower form of sourcing associations, are associations of retailers which are formed in order to organize joint procurement of goods and services with the main goal to gain a better negotiating position among suppliers.

In the EU there are several large retailers sourcing associations, and they can be classified according to the type of goods in focus. For groceries and fast moving consumer products examples are: EMD, AMS, Rewe and Edeka; textile: Garant; furniture: Atlas, Begros and VME, building supplies: Hagebau; electronics and household appliances: Euronics (according to Dawson & Mukoyama, 2006; Wortmann, 2002), etc.

In Croatia mentioned sourcing associations are present indirectly, through operation of their members, for example, EMD is present through Müller, Kaufland and dm-

drogerie markt. In addition, we can observe increased association processes between small and medium retailers and good examples are NTL and Ultra Gros, Table 1 shows a brief profile and the strength of buying groups in Croatia measured by revenues, number of employees and the number of stores within the buying group.

Table 1. Buying Groups in Croatia

Name of the group	Established	Revenues (in bil. HRK)	Number of Employees Involved	Number of Stores Involved
NTL (Narodni trgovački lanac)	March 2005	4.4	6578	1229
	Members (8): Bakmaz, Studenac, Boso, Metss, Pemo, Trgovina Krk, Trgostil Donja Stubica, Gavranović Zagreb			
Ultra gros	End of 2001	4.1	6464	947
	Members (21): Dinova Diona, Djelo, Duravit, Jadranka trgovina, Jeruzalem, Kvarner Punat trgovine, La-vor trade, Lonia, Mlin i pekare, PPK , Prehrana, Ribola, Sonik, Strahinjčica, TP Varaždin, Trgocentar, Trgonom, Union , Valalta, Victa, Vrutak			

Source: Poslovna Hrvatska (2015).

Gaining Competitive Advantage through Differentiation and Focusing on a Market Niche

The focus strategy implicit that firm selects a segment or group of segments in the focused industry (Porter, 1985). Focus strategy involves concentrating on a specific, market, group of customers, product or service. Firms pursuing a focus strategy create competitive advantage in a narrow and well-defined niche to avoid head-on collisions with large competitors (Ibrahim, 2015).

Prior research suggests that focus (niche) is by far the most effective strategy for small business. Previous research by Ibrahim and Goodwin (1986) supports this conclusion. A small firm pursuing a niche strategy creates a competitive advantage in a narrow and well-defined niche to avoid direct rivalry with large competitors. Areas of distinctive competence identified by Stoner (1987) include quality of product or service, location, know-how, uniqueness of product or service and pricing. The defender and prospector-type strategies are highly pursued by small business owners and managers. This seems to confirm some earlier studies. Small firms pursuing either defender or prospector types achieved better performance than those employing an analyser-type strategy. Rugman and Verbeke (1988) reported that prospector-type strategy is the most pursued strategic direction followed by the defender-type. The researchers concluded that Miles *et al.* (1978) typology is more appropriate for small business than Porter's generic-type strategies.

If a firm uses a product differentiation strategy then it seeks to be unique in its industry along some dimensions that have value for the buyers. It selects one or more attributes that buyers perceive as important (Porter, 1985). As with price, retailers are interested in offering the best, or optimal, assortment of goods and services to attract customers. Retailers can choose to differentiate their assortments by providing items unique to the market, which can increase the number of stores needed to make a price comparison on an item and, at the extreme, make price comparisons impossible

(Stassen, Mittelstaedt & Mittelstaedt, 1999). Product assortment can play a key role, not only in satisfying wants, but also in influencing buyer wants and preferences (Simonson, 1999). Product assortment is a very important factor in achieving differentiation and satisfying the wants of target shoppers better than the competition (Kotler, 1997).

As good and successful examples of implementation of the differentiation strategy in food retailing in Croatia we can describe the Biovega company and company "Domaće I fino" Ltd. Biovega is a Croatian retail company founded in 1990. Bio Bio is a retail chain owned by Biovega specialized in selling ecological products, mostly food, beverages, cosmetics and household products. The company currently has 17 stores located in major Croatian cities, mostly in Zagreb with a yearly turnover of 14 million EUR in 2014 compared to 10.2 million in 2012 and 11.5 million in 2013 respectively.

The company's suppliers are required to have an ecological certificate that guarantees the sourcing and quality of their products as well as a good public image and experience on the Eco products market. Assortment of products in Bio Bio stores tends to be almost 100% ecological. The company also aims to offer products that are processed in the least possible manner. Assortment sustainability and responsible sourcing is another important issue. The company tends to cooperate with the Croatian eco farmers and encourage them to produce food in a manner that is responsible both for the environment and the society. Biovega also has its own eco farmstead "Zrno" as well as a vegetarian restaurant also called "Zrno". The company does not offer any meat products due to ethical reasons. In 2014 the company received an corporate social responsibility reward in the category of employee care from the Croatian Employers Association. Biovega quality control department, that controls health safety and registration of products consists of experts in regulatory affairs, controlling, certification, check-in system monitoring (for dietary supplements, foods with health claims, food with special properties and baby food), as well as professional sanitary engineer, a pharmacist and a representative of the Management Board.

Another source of the company's competitive advantage is highly specialized employees. Since Biovega was one of the companies that established the eco food retail niche in Croatia it can be said that the company's management possesses a better knowledge of the business processes than the competitors in this niche. The sale persons are required to be working professionals with experience in food sector or nutritionists. Ethical and transparent communication is also important for the company image, therefore the public relation sector employees are experts in the fields of social sciences: sociology, philosophy, linguistics, and visual design. Employees at all work processes have specialized knowledge that their workflow requires. The greatest attention is paid to education of employees in stores who undergo a program of lifelong learning and continuous education about the products from the company's portfolio and the upcoming trends to provide quality services.

In order to upgrade the quality, the company implements ISO 9001 and HACCP systems. The purpose of the introduction of ISO 9001 system is the improvement of business planning and development of quality awareness within the organization, providing an appropriate level of communication with customers and suppliers (partners) on mutual benefit, customer-orientation, reduction of losses (non-conforming goods or services), and process control. While the goal of the HACCP system is to protect the health

of consumers in food industry and distribution, and it takes place in six areas: Space Requirements, Storage requirements, Equipment and maintenance, Staff Training, Hygiene Program, SSOP Sanitation Standard Operating Procedures, the return of goods.

Some small retailers choose even narrower niche than Biovega. For instance, 'Domaće i fino' applies even more rigorous differentiation strategy and is focusing towards even narrower market niche by assortment differentiation policy based on the presumption of consumer ethnocentrism. The mentioned company is oriented on selling "so called" domestic food manufactured strictly by the Croatian farmers. Moreover, the company is basing its market strategy on virtual sales channel as the basis for communication with consumers. Actually, 'Domaće i fino' company started as the first Croatian online domestic food shop in 2010. Today it also has a physical shop in Zagreb. The company's turnover was 30 000 EUR in 2012 and 200 000 EUR in 2013.

Another example that supports the theory of differentiation and focusing is 'Greencajg' as very successful highly specialized online retailer. With its assortment policy based on organic food of own brands, 'Greencajg' is targeting even narrower niche because it is oriented mainly to narrow geographic area around Zagreb city. Therefore, we can conclude that there is a space for other small retailers to develop by applying differentiation and focusing generic strategies suggested by Porter.

CONCLUSIONS

Retail internationalization and retail concentration are two key trends in the European retailing industry. Their consequence is increasingly difficult position of small retailers which do not have enough resources and knowledge to compete with large international retail chains. In such conditions small retailers, in comparison to large retailers, face various issues such as low negotiation power towards suppliers, low turnover ratios low productivity rates, low margins, and consequently higher sales prices.

According to the literature on competitive advantage creation, small retailers can seize some opportunities offered by new market conditions. In this paper we suggested that retailers associations can improve their negotiation power towards suppliers. In addition, we described the implementation of differentiation by assortment as another strategy of market survival. For both cases we provided practical examples from Croatia. Also, it should be stated that the resource based view theory deals with the problems of choosing the directions for business diversification and it can't be applied for small companies. All of these findings can be a good starting point for further research into strategies that can be applied by small retailers as an answer to new trends in the retail industry, as well as useful information for managers in the retail sector.

Nonetheless, we have to point out that this paper was mainly based on secondary data which was a limitation of the research and this topic should be further developed by in-depth analysis of other good practices and examples from retailing industry.

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Special Economic Zones as Growth and Anti-growth Poles as Exemplified by Polish Regions

Hanna Godlewska-Majkowska, Agnieszka Komor, Magdalena Typa

ABSTRACT

Objective: The objective of this paper is to present the effects of special economic zones (SEZ) on the polarisation of public economic space in Polish regions.

Research Design & Methods: The paper looks at both positive and negative effects of economic zones on the polarization of economic space in Polish regions. In an empirical analysis of internal and external effects of SEZs growth centres are identified. Centre of the polarised region, as a source of development incentives, characterised with a higher growth dynamics in comparison to the other part of the region is identified as a growth pole; while the centre of a polarised region being a source of crisis factors higher than in the region is identified as an anti-growth pole.

Findings: In the result of conducted studies 8 growth poles, 19 centres of unstable economic situation have been identified, anti-growth poles has not been identified. Factors that result in the polarisation as well as its positive and negative characteristics were identified.

Implications & Recommendations: The new model, which captures growing changes and can activate an appropriate action aimed at avoiding crisis can be used as a potential early warning system by the authorities of territorial units.

Contribution & Value Added: The originality of this work lies in proposing a new methodological approach to identify poles and anti-poles. This approach can be applied for various tiers of taxonomic division for regions in various countries and forms of public aid.

Article type: research paper

Keywords: anti-growth poles; investment attractiveness; growth poles; public aid; special economic zones (SEZ)

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INTRODUCTION

Special economic zones (SEZs) are considered one of the most successful measures in regional policy that are applied to overcome barriers to regional development. One should consider not only a positive scenario in which the special economic zones become growth poles, but also think about the opposite course of actions. It is possible that the zones generate adverse effects, which not only fail to create growth generators, but may even hamper the growth or cause a spate of negative phenomena that intensify one another (i.e. negative synergy).

A negative scenario is probable when state aid is not adjusted in terms of its scale, kind or form to the characteristics of a given region/locality and investments in the zones. This causes overexploitation/misappropriation of resources instead of stimulating development in a viable manner. Therefore it is important to identify mechanisms which either cause the positive scenario to happen, in which case a growth pole is created by the special economic zones, or activate the negative scenario productive, which involves the creation of an “anti-growth pole”.

For the purpose of this study, we decided to use the term growth pole in a reference to a centre of a polarised region, which is the source of growth incentives and is characterised by a higher growth dynamics in comparison to other parts of the region. Anti-growth pole is a polarised region’s centre, which is a source of the crisis signals higher than the rest of the region. Region can be considered as a group of spatial units on different levels of taxonomic division (e.g. local, mezuregional, macroregional).

The role of poles or anti-poles can be played by not only single entities, but whole groups of them, or by development strategies of large enterprises (especially corporations), as well as by economic incentives systems, which can cause spatial structure modifications created by large enterprises. Special economic zones can have a special role in this.

The goal of this paper is to demonstrate both positive and negative effects of economic zones on the polarization of economic space as exemplified by Polish regions. Conclusions presented in this paper will help to identify the factors that either increase the chances of the positive effects contributing to the development of the economic zones or cause their negative effects to prevail.

The proposed research methodology aims at delimiting poles and anti-poles on the level of municipalities that have SEZs within their borders. Delimitation procedure was conducted on the basis of internal and external activities of the SEZ in the municipality. The evaluation of internal effects was based on direct effects of enterprises located in these zones, while the external effects evaluation was a result of assessment of multiplier effects of a supply and income character. The paper proposes a procedure and a research tool developed for monitoring the changes that occur because of the polarisation of the region. This model can serve as the basis of an early warning system which could potentially be used by the authorities of territorial units.

The results of the analysis may be applied not only to foster the development of Poland’s regions, but also the regions located in other countries, based not only on SEZ, and also on other forms of public aid, as the mechanisms of polarisation are universal in character. Consequently, they may be particularly useful to stimulate regional economy

in underdeveloped agricultural regions and problem regions characterized by an anachronistic structure of regional economy based on industrial monoculture. Polish regions demonstrate a broad diversity and different capacities to absorb state aid, because polarisation mechanisms are universal.

The first part of the paper presents a literature review on the growth poles theories, development polarisation with a special attention to their positive and negative impact on development of other units. Furthermore, we presented considerations on the influence of special economic zones – as a kind of public aid – on the economic development with an emphasis on multiplier effect of a supply and income character. The conducted literature studies suggest that majority of studies concentrate on positive effects of SEZ that stimulate economic development on the different spatial scales. Literature lacks research analysing factors influencing the negative effects of this kind of public aid. It is a cognitive gap that we try to fill with this paper.

The next part of the article identifies Polish municipalities that are a subject of this research and have special economic zones within their borders. As a next step we have proposed a research method aimed at finding poles anti-poles of growth. Boundary conditions have been specified, which should be met by municipalities in order to become positive or negative centres towards nearby areas. Measures of the assessment of the internal and external effects (being the reflection of supply and income effects) have been described. Poles and anti-poles delimitation criteria have been identified depending on the measures describing external effects.

In the course of the studies 8 growth poles, 19 centres of an unstable economic situation have been identified and anti-poles have not been identified. Next, we have conducted the econometric analysis of polarization types in municipalities dependency from municipalities investment attractiveness, which have zones located within their borders. Also the results of the supplementary qualitative research with the use of an in-depth interview with the directors of five special economic zones in Poland were presented. It can be noted that qualitative studies confirmed the existence of poles in indicated places and lack of anti-poles in the studied period.

The last part of the paper presents the results of conducted analyses. During the research the most important factors of SEZs positive and negative influence on local and regional development polarization were identified. It needs to be stated that numerous threats connected with the creation of SEZs and the creation on anti-growth poles require to use the monitoring system of changes present in local and regional economy. Our model allows grasping the intensifying changes and preparing the prevention measures. The proposed method has a universal character and allows the assessment of a variety of public aid forms on the region's or country's economy no matter the given country's socio-economic starting point. It also fills the cognitive gap on the public aid's influence assessment on the municipality's economic growth.

LITERATURE REVIEW

The concept of the growth pole (fr. *pôle de croissance*) was introduced to the literature by Perroux (1955) as a phenomenon that surpasses the average level, and not one of extremes. The proposed conception of sectoral polarisation identifies the pole with the company, which is a driving force and exhibits a strong market position, rapid growth of

economic activity and a number of network cooperation (Perroux, 1955). In the course of its evolution, the theory of growth poles has provided a spatial dimension. Myrdal (1957) and Hirschman (1958) are considered the creators of the regional version of the growth pole theory.

Significant contribution to the development of the concept of growth pole in terms of a geographical viewpoint was also introduced by Boudeville (1972) and Paelinck (1965). Among the new theoretical concepts relating to the theory of polarized development, a new concept of endogenous growth and the concept of a new economic geography may be distinguished. According to Churski (2011), the latter concept is actually a new theory of polarised development.

In the literature, the term pole may theoretically determine both positive and negative effects of the impact of the growth of one unit on the development of other units. According to Perroux (1955), these are stimulating, inductive (fr. *effets d'entraînement*) or inhibitory effects (fr. *effets de stoppage*). Hirschman (1958) explains poles as opposite endpoints of one axis, wherein the positive effects are described as trickling-down effects, while the negative effects are presented as the polarisation effects. Myrdal (1957) described progressive effects as spread effects, and regressive ones as backwash effects.

In the theory of growth poles less attention is paid to a negative scenario of polarization effect. However, in accordance with the principle of circular cumulative causation by Myrdal (1957), positive changes cause the cumulative growth process, while negative changes – a cumulative shortening process. It is the result of feedbacks increasing intensity of mutual influences of both positive and negative character, being one of the reasons that boost inequalities between growth centres and regions and other areas.

The role of a growth pole can vary over time. The natural ebb and flow of the system may cause the existing poles to become centres of stagnation. Maturation of growth poles and their gradual replacement by others is a natural and necessary process in the national economy, but may cause the collapse of the process of economic development for some local areas. Diversification and supporting the development of service activities may to some extent mitigate the negative effects of the changes (McKee, 1987).

Shanzi and Feser (2010) studied the occurrence of spread-backwash effects on a part of the territory of China. They analysed the impact of economic growth in bigger cities on the support or inhibition of growth in smaller cities and counties and the geographic scope of the occurrence of spread-backwash effects. Their empirical study has generated mixed evidence of the spread effects of large cities growth. It should be noted that the growth poles in large cities could generate both positive and negative regional growth spillovers.

Parr (1999a) analysed the concept of growth poles in the context of regional economic planning. However, at the same time, it should be noted that the growth pole strategy may be recommended with regard to various regional problems, such as depressed-area revival, the encouragement of regional deconcentration, the modification of a national urban system and the pursuit of interregional balance. Among the characteristics of the strategy, the author mentioned the following: encourages employment growth and population growth in certain areas of the region, changes the spatial structure of employment and population growth within a region, identifies limited number of places that are potential growth poles and allows spatial discrimination or selectivity

between locations. Spatial configuration of the planned poles, economic activity at the poles, external effects of the poles and the presence of a pole within an existing urban system (Parr, 1999a; 1999b) are all important for the implementation of the strategy.

Followers of the concept of polarised development emphasise that in reality, growth poles can develop independent of the surrounding peripheries, which challenges the theories of sustainable development. Nowadays, growth poles are described as a network connection system, which may be characterised by greater intensity than associations with the nearest geographical environment and companies from the periphery (Gorzela & Jałowicki, 2000; Gancarczyk & Gancarczyk, 2002). Then, the effect of growth pole on economic space may be marginalised or limited only to the negative effects that are described as exploration of endogenous resources of the region.

Large enterprises play a special role in the concept of Perroux (1955). They are treated as leading units creating growth poles. Classical approach to the leading units in accordance with growth poles theory in a global economy needs a modification due to changes in enterprises, as well as in the environment. Today an important role can be played by groups of enterprises (especially by those who cooperate with each other and share their knowledge), as well as development strategies of great enterprises (especially corporations) and by the economic incentives system which can cause the modification of spatial structures created by large enterprises. Special economic zones can have a special role to play, as well as ownership connections and supply chains caused by quality reasons and safety reasons.

Economic zones in terms of the economy are an instrument of economic policy for the development of the whole country, which it does by supporting certain regions or sectors. On the other hand, from the perspective of economic geography, it is an element of economic space capable of creating new spatial structures and developing location advantages. In physical terms, these are geographically separate places doing business on preferential terms. Zones are oriented to attract new investors. Relationships that business entities create with the environment are one of the main factors of economic development of the region. The level of investment in the enterprise decides about its influence on the spatial structure of the regional arrangements, leading to the perpetuation or transformation of the spatial structures of the region.

Few studies concern SEZs as growth poles. Most authors note that SEZs are created in order to accelerate regional development and focus on the functioning of the areas with economic advantages. As such, the impact mechanism of this instrument is rarely present in the literature.

Considerations on the SEZs impact on the economy can be found in literature. Kryńska (2000) notices that the idea of creating special economic zones in Poland in its first assumptions, was supposed to support economic development of problematic areas through attracting large industrial enterprises. According to Ofiarska (2000) SEZs were intended to complement Poland's industrial policy within the progress of selected industries, increase of domestic services and products' competitiveness, modern technologies and support of production for exports. On the other hand Fierla (2000) and Brdulak (2003) stress out that SEZs were supposed to limit the negative effects which accompany the transformation process, such as unemployment increase and rising differences in the development level of particular Polish regions. The SEZs importance as an instrument of

counteracting marginalisation of the least economically developed regions was also noticed by Nazarczuk and Kisiel (2013), who implies that SEZs goals include, apart from new jobs creation in the underdeveloped regions, boosting economic development through the improvement of selected sectors, production structure diversification and local economy reconstruction.

Some of the authors emphasize the macroeconomic dimension of SEZs activity. Miśaszewicz (2011) spotted the SEZs role in the country's economic modernization through the influence on the increase of capital expenditure. On the other hand, Pastusiak (2011) perceives SEZs as an active investment policy tool, which aim is to attract foreign investors and economy's activation and in a result unemployment decrease and inflow of new technologies. Pilarska (2009) has a similar understanding. She describes SEZs as state's economic policy tool for decreasing unemployment, increasing underdeveloped regions' investment attractiveness and attracting foreign investors. Laskowski (2009) also points to the regional aspect of zones' functioning and identifies them as an instrument for fighting the inconvenient effects of public-economic transformation through bringing foreign investors to the areas in a danger of poverty and the use of existing technical and technological solutions, as well as smart management of unused industrial assets.

Usually the roles and goals of SEZs manifest themselves on the macroeconomic and regional levels. But some of the researchers point to its local character. Jarczewski (2007), Lizińska, Marks-Bielska and Kisiel (2011) perceive the SEZs role in the investment attractiveness of municipalities. Krzemiński (2009) underlines the SEZs' role in the spurring of local entrepreneurship in the underdeveloped, or affected with high unemployment, regions. Przybyła (2010) links the existence of zones with transformations in the city's functional structure especially connected with city's exogenous functions, thereby stressing the SEZs influence on the cities' economic base changes. In turn Ambroziak (2009) notices that zones became the tools of state's impact on the actions of economic entities, tools for economic growth stimulation of specific regions and for attracting foreign investments.

There are number of studies that examine how special economic zones contribute to the stimulation of regional development, but not in the perspective of the growth pole. Advocates of special economic zones as national or regional development strategies argue that the zones offer various benefits. At the national level direct benefits include foreign investments, job creation and export promotion, whereas indirect benefits involve transfer of technology and know-how, as well as facilitation of institutional liberalisation. At a local level the benefits for human resources entail increase in income and acquisition of professional skills, often described as the 'spillover effects.' Authors focus mostly on success stories of SEZs (Wong & Chu, 1984; Moura & Forte, 2010; Osinubi & Amaghionyeodiwe, 2010; Brautigam & Xiaoyang, 2011; Zeng, 2011; Saqib, Masnoon & Rafique, 2013) and indicate the causes being the joint presence of various institutional and legal instruments, which range from tax havens to some combinations of areas with economic advantages and forms of support for the transfer of technology and know-how like science and technology parks or centres for entrepreneurship.

Examples of clusters that are created as a result of cooperation between SEZs and companies operating in the zones are widespread (Zhao, Chan & Chan, 2012; Hsu, Lai

& Lin, 2013). Researchers also describe eco-parks, which may offer attractive conditions for the growth of companies that develop green innovations (Shi, Chertow & Song, 2010), or apply corporate social responsibility (Lai, 2006; Shen, 2007), or shared social responsibility (Christensen & van Bever, 2014).

The literature is prevalently descriptive and indicates the role of SEZs in regional development. However, studies on the mechanism of impact of SEZs on the economy and the universality of this impact are rare. Typa (2012; Typa, 2013a; Typa, 2013b) is one of the few scholars who describe special economic zones as growth poles. In her studies growth poles are presented through investigating the dynamics of development of municipalities (*gminy*), where SEZs are located, in comparison with one-tier higher taxonomic areas (LAU2). Typa's (2012) research leads to a conclusion that communes in the SEZs only develop into a growth pole if they are characterised by high investment attractiveness. They are mostly located in national and international transport corridors, densely populated regions with historically industrial background, which bear many features of problematic regions (prevalence of heavy industry, significant negative externalities, exceeding economies of scale). Studies also show heavy influence of SEZs location on the manufacturers of means of transport that are in a position of creating numerous cooperation ties. The municipalities in which SEZs, clusters and business environment institutions generated a synergy effect were the most successful. This author, however, only concentrated on positive aspects of space polarization.

Some authors also criticise SEZs. They believe the SEZs produce worse effects than complete economic liberalisation (Farole, 2011). The results of analysis of the role of SEZs in the liberalisation of the economies of China and India allow us to conclude that export and an increase in FDI have a positive statistically significant impact on the economic growth in those countries. The presence of SEZs increases the pace of regional development, but an increased number of SEZs have a scarce effect on economic growth. Increased pace of liberalisation seems to be the key to expedited economic growth. SEZs have also been investigated as liberalisation and development strategy vehicle for the economies of China and India (Leong, 2013). It should be noted that the creation of further subzones within the SEZs may potentially cause a dispersion of investments and a reduction in their desirable effects in addition to 'subzone cannibalisation,' i.e. rivalry between the subzones within one SEZ (Hajduga, 2011).

Broszkiewicz (2011) has reported on the disadvantages in the functioning of SEZs, which appear as a result of the influence of different factors characterised by legal and economic fluctuations. According to him, the possibility of doing business in the zone is strictly dependent on the current laws and changes in that area, as well as on global factors, e.g. economic crisis. The author also mentions that SEZs in Poland did not fulfil the purpose of their formation, which was the equalisation of disparities in the region.

Other authors highlight the needs of sectors that should be developed complementary to one another, and question their restricted learning faculty, their capacity for a technological spillover, or they argue that in fact SEZs intensify the discrepancy in the region's income (Park, 2005). However, it is difficult to generalise the effects of SEZs, as an overall research result is normally contingent upon a specific situation. According to Sigler (2014), the SEZs may in fact worsen the disparities in social development by creating entry barriers for a majority/part of a society (both physical and social restraints);

allowing the import of a highly skilled workforce (instead of developing local training schemes); diminishing the benefits of international investments through a tax system that provides excessive tax reliefs; and allowing public authorities to be passive in implementing social development means and measures. For example, despite Panama's recent economic success many of its regions have been neglected by social services schemes, e.g. state-funded education or public healthcare. In the SEZ-supported sectors, entry barriers are high both in terms of required skills or know-how/qualifications and necessary capital outlays, whereas most positions with high or mean remuneration are occupied by national elite or well-educated expats. SEZs consequently contribute to the overall development of a national economy. If they are, however, intended to serve as a local development generator, broad complementary social development schemes need to be implemented to maximise social benefits of economic growth (Sigler, 2014).

It should be noted, though, that companies are not isolated but settled in certain locations and socioeconomic contexts that are also shaped by political and institutional players (Tödtling, Asheim & Boschma, 2013). Although such zones turned out to be successful in the Dominican Republic, critics of the idea of creating various areas of economic advantages (here: export processing zones) underline the unfavourable lack of links and relations between companies located in the zone and firms outside it. This results in economic enclaves. According to the researchers, Export Processing Zones are not an optimum industrial development generator. They argue that it would be more beneficial to support export in the entire national economy because that generates network effects and adds higher value, which in turn contributes to an increased local employment rate, income and transfer of technology (Willmore, 1995). A study on another kind of economic enclave, Special Economic Zone of the Kaliningrad Oblast in Russia (Russian region surrounded by UE states, Lithuania and Poland), was presented in a paper by Gareev (2013).

Therefore, attracting a foreign investor does not necessarily safeguard its positive impact on the national or regional economy. Important determinants of absorptiveness and benefit maximisation for the local economy include technology gap, cultural and mental distance between individuals, homophily, spatial proximity, idiosyncratic character of sectors and host countries, high degree of foreign ownership, level of development of host economy, relative size of firms, degree of trade protection and the institutional framework (Tavares & Young, 2005).

To the list of positive effects, one should also add activation of cost-sensitive mature sectors located in the proximity of less-developed territories, due to the emergence of industries in major cities. A drainage of well-educated workers and potential capital investments from the surrounding areas is one of the negative effects of the growth pole (Shanzi & Feser, 2010).

Referring to the classical model of business location by Smith (1966), it was noted that SEZs should be a form of subsidy for investors, which aims to direct them to places that otherwise would not be of interest. These areas are located outside either the spatial boundaries or area of production profitability, or are perceived by investors as unattractive in comparison with competing locations.

Subsidised business investments in the area of SEZ should have a positive impact on the local environment through increased income and employment in other companies,

as well as an increase in tax revenue to local governments. Grzeszczak (1999) observes that the function of the growth centre in regional development is its ability to ensure the spread effects. The spread effects occur when the core area and the periphery are incorporated to the economy through: (i) increase in demand for goods and services produced in the periphery; (ii) investments of companies from the core as a result of searching for new markets and the desire to reduce costs; (iii) income and supply multiplier effects. These effects also occur in a less tangible form, e.g. through the diffusion of styles and management patterns.

For the first time, the multiplier effects in the context of SEZ were described by Domański and Gwosdz (2005) when summarising the activities of the SSE Euro-Park Mielec. They distinguished two basic types of multiplier effects: supply and income. The supply effects arise from the extra demand created by newly established or growing enterprises, enabling the growth of companies supplying goods and services. Income effects are the result of an increase in the purchasing power of the population through increased salaries, which when spent contribute to the development of companies that meet consumers' needs. This way, the development of some companies through additional demand for products and services is 'multiplied' in the form of development of other economic entities. These entities, in turn, also create more demand, inducing another cycle of multiplier effects.

According to Domański (2001), the size of multiplier effects depends on the type of business and the size and characteristics of the company. Individual activities (industries) and companies also differ in the spatial range of multiplier effects, including the degree of local closure. Stronger local supply effects usually occur in companies that operate longer in a given location and native capital enterprises, especially those that have their own premises. Sometimes supply effects are weaker in some foreign companies, especially new factories, oriented to foreign markets. Local multiplier effects generated by outsourcing services are usually stronger than the effects arising from the supply of production. Typically, the local nature is exhibited by income multiplier effects associated with the place of residence of employees. Their size is strongly related to the number of job positions and salary levels in companies.

In the result of conducted literature studies, we found that the majority of research concentrates on SEZs positive effects stimulating economic development on the regional level. The literature lacks the sources analysing negative effects of such public aid and its impact on the local level.

In the literature, the prevailing opinion is that of the growth pole being held up as an example of positive polarisation; however, the concept of an anti-growth pole should be also introduced to draw attention to the existence of a negative polarisation associated with the overlapping in a given location of various development constraints, ultimately causing the opposite phenomenon of economic development.

Therefore, an attempt to present both aspects of polarisation offers a pioneering and fresh approach to the subject. It is important to point out under what conditions a growth pole may collapse and transform into an anti-growth pole (crater) or where and under what circumstances an anti-growth pole (crater) may come into existence in a previously non-polarised area. This is a research gap that should be filled. It may have implications for the development of studies on economic geography and regional eco-

nomics and for practical applications as managing the state aid requires a knowledge of failure factors. It may also contribute to the formation of an early warning system to enable the planning of necessary activities aimed at avoiding a crisis.

MATERIAL AND METHODS

In Poland, special economic zones are located in 356 municipalities, which represent 14% of all municipalities (LAU2) in Poland, while the total area of economic zones does not exceed 12 000 ha. There is a high geographic dispersion of the areas, as a result of which they affect the local economy significantly only in a few cases, their effect on the regional economy being rarely felt.

This may be proved by analysing the basic indexes of SEZs activity; that is, the value of investments accomplished by the companies and the number of jobs created by regional business. By the end of 2013, investment spending in the zones has surpassed 93.14 billion PLN. In 2008-2012, on an average 6% of the annual investments in Polish enterprises were completed by regional enterprises. In the area of SEZs, 196 000 new job positions were created and 70 580 jobs were retained. Thus, 1.9% of the total working population were employed in the regional enterprises.

Taking into account the nature and extent of the expected changes caused by new investments in SEZ, it is reasonable to assess whether, in the case of SEZs, flotation of multiplier mechanisms, particularly fiscal and supply, is noticed and whether SEZs became a factor which promotes economic growth at the local level. The analysis aims at answering a question whether the enterprises operating in SEZs positively influence the economic growth on the local level and thus have the ability of extending the growth to the regional level. A hypothesis was adopted for this purpose, which states that investments of subsidised entities located in SEZs should influence the local environment through the income and employment increase, as well through tax revenues for the local governments.

For this reason, we analysed the direct effects of SEZs' activity in Poland and selected indexes assessing the level of economic development of the municipalities in which the SEZs were established. For the analysis, we used data of the Ministry of Economy and Central Statistical Office of Poland regarding:

- cumulative investment spending in SEZs according to the status at the end of 2012 and 2013, when division into municipalities was conducted,
- newly created and maintained job positions in SEZs according to the status at the end of 2012 and 2013, when division into municipalities was conducted,
- the number of entities registered in the system per 1000 individuals of reproductive age between 2008 and 2013, when division into municipalities was conducted,
- the number of employees per 100 individuals of reproductive age between 2008 and 2013, when division into municipalities was conducted,
- shares of municipal budgets in taxes constituting the state budget revenue, income tax from every natural and legal person of reproductive age between 2008 and 2013, when division into municipalities was conducted.

Based on the above-mentioned data, the following factors were evaluated:

1. internal effects based on:

- share of newly created and maintained job positions in SEZs in the number of employees in the municipality according to the status at the end of 2012 [W1],
- cumulative investment spending in PLN of regional enterprises according to the status at the end of 2012, when division into municipalities was conducted [W2],

2. external effects based on:

- the annual average growth rate of the number of entities registered in the system per 1000 individuals of reproductive age between 2008 and 2012 [T1],
- the average annual growth rate of municipal budgets in taxes constituting the state budget revenue income tax on every legal and natural persons of reproductive age between 2008 and 2012 [T2]¹,
- average annual growth in the number of working people per 100 individuals of reproductive age between 2008 and 2012 [T3].

Based on such calculations, firstly we identified municipalities, which, thanks to the activity of SEZs, are able to develop faster than the sub-meso regional environment and thus act as growth centres. At the same time, as a boundary, we considered the fulfilment of two conditions regarding:

- a significant share of SEZs in the management of labour resources—the reflection of a significant impact is the W1 index at the minimum level of 10%; and at the end of 2012, 86 communes met this requirement,
- significant value of new investments, i.e. such which are able to induce an effect on the regional market—according to the authors, a significant impact was observed among these municipalities for which the W2 level amounted to a minimum of 200 million PLN, by analogy to the minimum value of the large investment project in accordance with the EU² legislation; at the end of 2012, 35 regional municipalities met this requirement.

Altogether among the 356 municipalities in general in 2012 when SEZs were completed, only 27 municipalities met the boundary conditions, leading to the hypothesis that the economic zone significantly affected their development.

Identification of municipalities with a significant level of internal effects does not allow us to conclude that these regional locations became zonal ones:

- growth pole, that is the centre of the polarised region emitting growth stimuli characterised by a higher growth rate compared to the remaining part of the region. The re-

¹ One of the income sources in regional municipality are shares in taxes that constitute the income of country budget. This benchmark indicates indirectly on the salary level and purchasing power of the local community and the economic condition of firms located in the regional municipality.

² Art. 100 Regulation of the European Parliament and the Council (EU) No. 1303/2013 from 17 December 2013 establishing common regulations on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for the Rural Area Development and the European Maritime Fund and Fisheries and establishing general regulations on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (WE) No 1083/2006 (L 347/320).

gion may be applied to spatial units of different levels of taxonomic division (e.g. local, meso-regional, macro-regional)³,

- anti-growth pole that is a centre of the polarised region emitting crisis stimuli of higher growth rate compared to the remaining part of the region.

The answer to this question is possible only on the basis of an assessment of external effects, which reflect the supply effects (T_1) and income effects (T_2, T_3). In order to accomplish that, we compared T_1, T_2, T_3 indices of each municipality that had a SEZ within its border with the same indices of a local government of a higher level, i.e. district, sub-region, or region depending on the municipality status according to NTS.

The period which was considered when calculating average annual growth rate for the purpose of T_1, T_2, T_3 calculation, is similar to the permanence period required for projects supported from public funds under the guidelines on national regional investment aid⁴. Results of the calculations are presented in Table 1.

Depending on the level of T_1, T_2, T_3 index, following delimitation criteria were established: poles (T_1, T_2, T_3 , greater than zero), anti-poles (T_1, T_2, T_3 , equal to zero or less) and the centres of unstable growth rate (T_1, T_2, T_3 above or below zero) (Table 2).

Then, econometric analysis was carried out analysing the type of polarisation that occurs in the regional municipalities and investment attractiveness of communes, where special economic zones are found. For this purpose, the index of potential investment attractiveness developed by Godlewska-Majkowska (2012) was used⁵.

³ This definition refers to the concept of growth poles by Perroux (1955).

⁴ EC regulation on regional aid for 2014-2020 (Text which is relevant for EOG) (2013/C 209/01).

⁵ Potential investment attractiveness is an approach referring to the assessment of localisation prior to investment. In this perspective, location advantages are analysed. The construction of indexes describing potential investment attractiveness refers to the leading location factors, grouped into components describing demographic and marketing factors, as well as technical and social infrastructure and pro-investment behaviour of local governments. In addition, according to the accessibility to the data, research and development issues, as well as social capital (relational) are considered.

The advantage of this index is the design enabling full comparability of ratings of investment attractiveness at all levels of the static division of the country. The disadvantage is the limitation regarding a set of diagnostic variables, due to the need of their accessibility for all levels of the static distribution of the country. Despite these difficulties, this index is based on 45 diagnostic variables, which appear to be a sufficiently broad foundation for comparisons. All indexes are calculated based on weight-correlation method, allowing determination of weights of pseudo-attribute variables based on the statistical distribution, which minimizes the subjectivity of the final evaluations.

The method adopted allows for minimising the effect of subjective assessment of the author on the final results, while taking into account the uneven impact of individual variables on the size of the final index. It corresponds to reality to a greater extent compared to exclusion of ranks of residual variables.

The calculated values of the synthetic pseudo-attribute index form the basis of a subset to the set of spatial units of A F classes, the scope of which was determined by the left-closed intervals with the following lower boundaries: Class A: $Av + S(x)$, Class B: $Av + 0.5S(x)$, Class C: Av , Class D: $Av - 0.5S(x)$, Class E: $Av - S(x)$, Class F: 0, where Av – arithmetic mean, $S(x)$ – standard deviation.

The design of indexes also allows for their decomposition to the level of sub-aggregates, so that each territorial unit may be assessed in terms of the attractiveness included in each microclimate (labour resources, technical infrastructure, social infrastructure, market sale and administration). If necessary, it is possible to explore the profile of the particular unit and to determine the formation of source variables in particular locations. For further details see Godlewska-Majkowska (2012).

Table 1. United States Case Studies of Immigrant Entrepreneurs as boundary spanners

Municipality	Province	SEZ	W ₁	W ₂	T ₁	T ₂	T ₃
Polkowice (3)	DOLNOŚLĄSKIE	Legnicka	22%	3 156 650 621.00	0.62	3.87	0.05
Legnickie Pole (2)	DOLNOŚLĄSKIE	Legnicka	21%	433 540 367.00	0.27	2.25	8.57
Nowogrodzic (3)	DOLNOŚLĄSKIE	Kamiennogórska	18%	1 143 716 511.99	0.92	0.60	2.01
Jelcz-Laskowice (3)	DOLNOŚLĄSKIE	Wałbrzyska	18%	1 486 475 875.01	0.68	0.34	0.39
Głogów Małopolski (3)	PODKARPACKIE	Mielecka	14%	271 736 177.00	1.13	2.77	5.40
Ksawerów (2)	ŁÓDZKIE	Łódzka	12%	218 804 551.29	0.61	4.93	4.45
Nowe Skalmierzyce (3)	WIELKOPOLSKIE	Łódzka	11%	358 933 777.00	2.86	3.15	3.27
Gliwice (1)	ŚLĄSKIE	Katowicka	10%	6 492 477 518.79	0.88	0.23	1.36
Kobierzyce (2)	DOLNOŚLĄSKIE	Tarnobrzeska/ Wałbrzyska	93.94%	4 150 382 000.00	2.13	0.57	-0.02
Mielec (1)	PODKARPACKIE	Mielecka	32.22%	3 536 834 799.00	-0.28	0.31	0.00
Wielbark (2)	WARMIŃSKO-MAZURSKIE	Warmińsko-Mazurska	30.30%	260 842 760.00	-1.50	7.27	10.79
Kostrzyn nad Odrą (1)	LUBUSKIE	Kostrzyńsko-Słubicka	25.91%	1 083 524 606.88	-1.31	-2.69	1.32
Żarów (3)	DOLNOŚLĄSKIE	Wałbrzyska	22.45%	919 040 617.30	0.89	-0.57	1.11
Skarbimierz (2)	OPOLSKIE	Wałbrzyska	22.33%	1 301 710 921.60	2.02	-1.66	25.14
Łysomice (2)	KUJAWSKO-POMORSKIE	Pomorska	19.14%	836 867 534.41	0.44	0.23	-7.56
Gorzyce (2)	PODKARPACKIE	Tarnobrzeska	19.11%	219 172 200.00	0.54	-1.41	-1.75
Dębica (2)	PODKARPACKIE	Mielecka	18.42%	207 316 332.00	2.13	0.04	-0.50
Mława (1)	MAZOWIECKIE	Warmińsko-Mazurska	17.46%	523 062 198.00	0.00	0.42	1.25
Stalowa Wola (1)	PODKARPACKIE	Tarnobrzeska	13.73%	1 118 906 400.00	-0.24	-0.57	0.53
Piechowice (1)	DOLNOŚLĄSKIE	Kamiennogórska	12.55%	238 079 233.14	-2.20	3.50	-0.61
Tychy (1)	ŚLĄSKIE	Katowicka	12.07%	3 271 164 639.79	0.28	-0.57	0.02
Ozorków (1)	ŁÓDZKIE	Łódzka	11.83%	532 669 610.93	-1.55	0.64	-1.43
Starachowice (1)	ŚWIĘTOKRZYSKIE	Starachowicka	11.73%	616 628 829.00	-0.39	0.29	1.14
Kwidzyn (1)	POMORSKIE	Pomorska	11.62%	1 079 030 205.00	-0.28	0.85	-0.53
Nowa Dęba (3)	PODKARPACKIE	Tarnobrzeska	11.33%	325 516 900.00	-0.10	1.07	2.30
Krotoszyn (3)	WIELKOPOLSKIE	Wałbrzyska	10.32%	415 155 000.00	-0.14	0.34	0.07
Barlinek (3)	ZACHODNIOPOMORSKIE	Kostrzyńsko-Słubicka	10.06%	426 665 776.08	-0.14	-1.23	0.49

Source: <http://www.ilctr.org/promoting-immigrants/immigrant-entrepreneurship/video-interviews/>

Based on Gretl statistical program, we analysed the correlations between the effects of external economic zones (based on the average of W1 and W2 variables) and:

- index of potential investment attractiveness for the local economy,
- particular aggregated data describing each individual key location factors (labour resources, technical infrastructure, social infrastructure, market sales, administration),
- all variables building the local attractiveness of individual municipalities (matrix of dimensions 78 × 78 was analysed) where economic sub-zones were formed.

Statistical analysis using the Gretl program revealed no significant correlation, expressed by the index of potential investment attractiveness, between the nature of the polarisation and localisation values of Polish regions, as well as for the remaining sections of the analysis. Statically significant correlation (positive) was observed between external effects, zone and local development plan of individual municipalities. At the same time a negative correlation was reported in analogy in terms of accessibility to health care (number of consultations per 1000 inhabitants, accessibility to pharmacies per 1000 inhabitants).

The first statistical correlation obtained is confirmed when considering the organization of the investment process; if in a given municipality, properties are covered by the local development plan, then the investment process is not delayed due to waiting for the decision on conditions for construction and land management.

The second correlation, a negative one, indicates the importance of accessibility for people with relatively good health status, which is understandable considering the specialisation of Polish special economic zones in the manufacturing industry.

Table 2. Criteria for the delimitation of the poles and the anti-poles in the area of regional municipalities

Category/criterion	W ₁	W ₂	T ₁	T ₂	T ₃
POLE	>=10%	>= 200 MM PLN	>0	>0	>0
ANTI-POLE	>=10%	>= 200 MM PLN	<0	<0	<0
UNPOLARISED CENTRE	>=10%	>= 200 MM PLN	<0 or >0	<0 or >0	<0 or >0

Source: own study.

RESULTS AND DISCUSSION

Among 27 municipalities meeting the boundary criteria, on the basis of external effects criteria, we identified 8 growth poles and 19 centres of unstable economic situation; the anti-growth pole was not identified. Growth poles are located mainly in southwestern Poland (Polkowice, Legnickie Pole, Nowogrodziec, Jelcz-Laskowice) and one pole in each of the other parts of Poland (Glogow Malopolska, Nowe Skalmierzyce, Gliwice, Ksawerów).

Analysis of cartograms does not indicate a straightforward relation between location and the nature of polarisation (Figure 1). One can only observe the spatial concentration of the poles in southern Poland, which is associated with supply networks for the automotive sector. In addition, it may be related to the distribution of Polish industrial districts, focusing on the southern area from the NUTS2 region of Lower Silesia, through

Silesian, Małopolskie, to Subcarpathian. Regional poles generally occurred in urban-rural municipalities, i.e. those where there is a small town with surrounding rural areas. They are often located in the areas that were formerly industrial centres manufacturing commodities or in urban areas. In that case, the polarisation effect is possible as a result of free investment areas, enabling further investments based on cooperative relationships and low cost of doing business. In addition, there are no other significant sources of agglomeration benefits, typical of urban environment.

Analysis of structure of the trade economy indicates an association between the formation of poles and the regional specialisations supply network. Among the growth poles, we distinguished those that arose based upon investments completed by automotive industry companies (Polkowice, Legnickie Pole, Jelcz-Laskowice, Gliwice) and those that adopt a spatial model based on investments of leading entity cooperating with entities outside the zone (Nowe Skalmierzyce) or investments of many entities cooperating together in the supply network (Nowogrodzic, Jelcz-Laskowice, Głogów Małopolski, Gliwice).

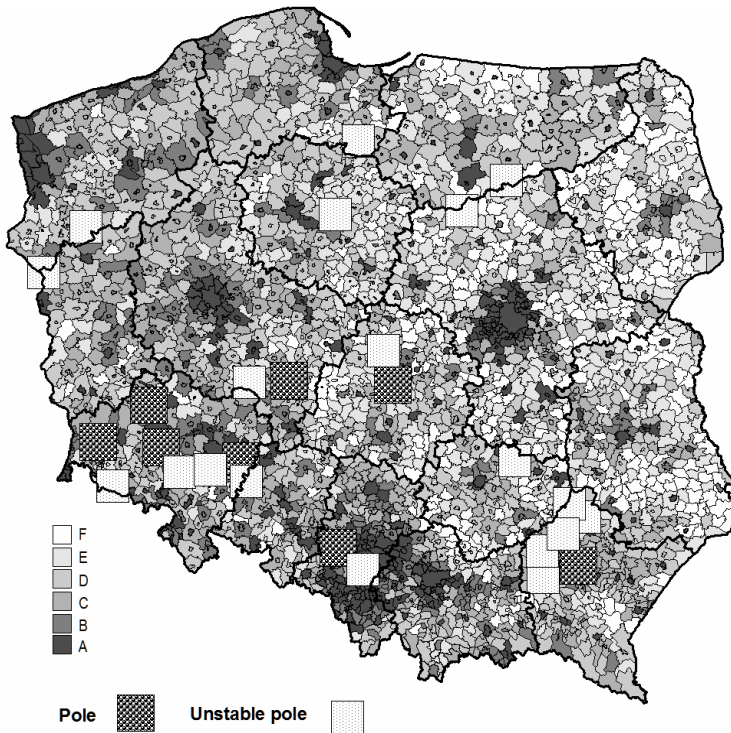


Figure 1. Distribution of regional poles in Poland in 2012 against the investment attractiveness of municipalities

Source: own elaboration based on self-reported data.

The proposed method of identification of growth and anti-growth poles may be used not only to evaluate the effects of SEZs on regional development, but also to assess the impact of various forms of public aid on the region’s economy, e.g. clustering and networking, subsidies for investments, support of entrepreneurship development etc.

Due to the fact that conclusions regarding the presence of poles and anti-poles should be verified using qualitative methods, our methodological procedure was supplemented by in-depth interviews addressed to the management of five among the fourteen special economic zones established in Poland.

From the results of the study, the following key factors were considered as necessary for stimulating the local and regional economic development: large scale of the investments to induce the effect in the local/regional economy, entry to the zone of an important investor and doing business with a high investment multiplier. To these very important factors, we can also include the presence and the quality of the business environment, a high level of economic development of the host region and adaptation of the industry to the host region (including business activities in accordance with the investment potential of the parent region and corresponding to the specificity of place in terms of the size and structure of resources) as well as strong relations with the local business.

Important factors of positive impact of SEZs on the local or regional economy appeared to be (i) lack or limited power of the decision-making centres (e.g. large independence of regional companies in the structure of the corporation) and (ii) presence of linkages and associations as elements providing benefits from the parent unit to the stimulated units. The least important role was assigned to geographical and cultural proximity of enterprises investing their business in the area of SEZ.

In the course of the conducted studies it was noted that the most important factors of economic zones that affect the positive polarisation of regional development are:

- entry of an important investor into the area and the large scale of investment exerting an effect on the local and regional economy, e.g. in the areas of Legnickie Pole, Gliwice, Jelcz-Laskowce—the automotive industry,
- embedding of business, resulting in conducted reinvestments in the zone proving the positive impact of location in SEZ on the company's objectives—e.g. it applies to the poles such as Legnickie Pole, Polkowice, Głogów Małopolski; Nowe Skalmierzyce, Jelcz-Laskowice, Gliwice,
- technological advancement of regional companies, particularly important are innovations on a global scale, facilitating the export of products or business relations with a foreign corporation (new technologies which relate to thermomanagement, i.e. for Volkswagen and Audi).

Study results suggest that for the most important factors negatively affecting the local and regional economic development, we can name abandonment of the zone by the leading investor, insufficient quantity and quality of business entities' environment, the presence of linkages and associations as transmitters transferring the crisis from the parent unit to the stimulated ones and low level of economic development of the host region. In this context, decision-making instability and dependence of enterprises in the zone on foreign decision-making centres are also important. Other important factors include permitting small-scale investment, generating no significant effects in the local/regional economy, doing business of low investment multiplier, cultural distance and lack of adjustment of the industry to specificity of the host region.

In one of the analysed zones, withdrawal of strategic investors for the purpose of its development was observed due to unsatisfactory economic performance of the company, the global economic crisis or a strategic decision made by the decision centre located

outside the country. Despite this, in the analysed SEZ, no remedial program or any procedures which can be run during an emergency situation, e.g. related to the abandonment of the zone by an important investor, was mentioned.

An important role is certainly played by the active attitude of management zones and local and regional authorities, towards investors already operating in the area, in the form of additional incentives to reinvest in the area of SEZ. Among the activities of this type, we can mention business-related services, workshop offers, networking meetings, seminars, conferences, foreign missions and fairs, supporting clusters' activity and networking.

Generally speaking, it can be concluded that qualitative research confirmed the existence of poles in the targeted locations and confirmed the lack of anti-pole disclosure over the considered period. On one hand, this may be explained by the small size of Polish investments in the zones, and thus a domino effect is questioned. This resulted mainly from efforts aimed at developing labour resources released as a result of redundancies. It is favoured by spatial organization of zones characterised by the territorial dispersion. In the face of global crisis, particularly the one in 2009 that affected the Polish economic zones, the expression of solidarity between the particular zone managements was evident in their efforts to generate new job positions in other locations within the economic zone for workers who were about to lose their jobs.

The question arises, to what extent can this method be applied in economic zones with a different organizational structure to that in Poland. Throughout the world, public aid offered in the zones takes several forms (exemption from customs duty, exemption from income tax, investment funding, giving the premises for infrastructure usufruct on better than market conditions, investment guarantees, administrative privileges) and depends on the generation of the zone (commercial areas, production zones, service areas, research areas, competitive zones, transnational areas).

Despite this diversity, the expected short-term goals of SEZs activity are similar (inflow of investments, new job positions). However, the objective of the zones from the point of view of regional inequality is not and cannot be the inflow of investment alone. What is expected from the zones in a long-term perspective relates to structural changes in the regional economy, diversification of economic activities, technology transfer, networking of foreign investors from the zones with the national economy and increased mobility of labour resource from the area to the rest of the region/country to establish the diffusion of knowledge and skills.

New investments and new job positions as well as faster development of administrative centre are the direct effects of the zones. Thus, the proposed method of evaluation of changes induced at the location of economic zones exemplified by SEZs in Poland is very universal. It allows assessing the impact of various forms of economic zones on the economy of the region/country, regardless of the initial level of socioeconomic development of a particular country or the zone.

Depending on the size of the economy of a particular country, the dispersion of zone's location, size of the administrative areas covered by the privileges, boundary criteria relating to the minimum value of investment spending in the zone and minimal participation in the use of labour resources, as well as the reference area in relation to which growth effects will be studied, should be factored into the methodology of future

studies. In contrast, the selection of indexes (T_1 , T_2 , T_3) on the basis of which one assesses the occurrence of polarisation effects can be similar due to the fact that they reflect the emergence of income and supply multiplier effects that determine the polarisation of the economic space.

CONCLUSIONS

In order to ensure the sustainability of development throughout an area, it is necessary to develop a concept of zone activities, which will provide the conversion of their structures in the new industrial spaces. A well designed and consistently implemented SEZ policy can bring the desired results, i.e. increase employment, foreign investments and increase of exports. Poorly executed program for the zones can result in negative outcomes, such as reduction of the tax base and low “quality” of investments, which are unstable and weakly associated with the economic and social environment of the zone. It results from the fact that the special economic zones can cause both positive and negative polarisation of regions.

Positive polarisation in the form of a growth pole occurs when the zone is entered by, a large company or co-operating companies (e.g. cluster), characterised by the following features: (i) the ability to elicit regressive and progressive feedbacks, (ii) scale large enough to produce a substantial economic effect, (iii) doing business with high investment multiplier, (iv) strong associations with the local business ecosystem, (v) lack or limited power of the decision-making centres (e.g. large independence in the corporate structure), (vi) doing business in accordance with the investment potential of the parent region.

To induce long-lasting effects exerted by these characteristics, favourable conditions created by regional, national and international environments (within their competencies) are necessary, such as stability of regulations and generation of the anticipated attractive investment areas, thanks to which it is possible to reduce the capital of investment spending expenditure and the time taken to obtain income from business activity.

An economic zone can become the origin of a new industrial space. For this to happen, the zone should be created based on the dominance of one, or more external investors, private or public, together with a set of small- and medium-sized enterprises. External investors should be guarantors of innovative, technologically advanced activity, and small- and medium-sized enterprises should act as a guarantee of the use of endogenous potential. Entities located within and in close proximity to the area should cooperate with each other in a competitive environment to discount the external benefits, i.e. the advantages of specialisation, enabling the achievement of high competencies within the process phases regarding the product manufacture and scale effect, diffusion of innovations as a result of exchange of information and knowledge through mobile personnel and benefits of access to qualified personnel.

External benefits are related to the requisite presence of business environment institutions, such as R & D units, technology transfer centres and financial institutions. The confluence of these conditions will lead to the evolution of economic zones in clusters or industrial districts. The joint incidence of the above-mentioned conditions is essential for inducing the development of growth poles in the regional environment as a result of regional multiplier effects.

The pole may be subject to “collapse” or anti-poles may occur in a so far unpolarised region, if (i) economic zones compete with each other rather than cooperate based on competition, creating an excessive number of economic zones, which leads to their excessive dissipation, (ii) regional companies do business ill-suited to the location specificity in terms of size and structure of the resources, as well as excessive cultural distance, (iii) economic zone develops at the expense of the environment, absorbing the factors of production resources, (iv) regional companies establish stronger relations between themselves resigning from the cooperation with local business partners, (v) leading company forming a chain of cooperative relations withdraws from the economic zone, (vi) regional enterprises are unstable in decision making, and not self-reliant in relation to foreign decision-making centres, (vii) feedbacks and associations are responsible for transferring the crisis from the leading unit to the stimulated units, (viii) in the direct vicinity of zones, there is a lack of enterprises ready to establish cooperation, (ix) local resources, especially labour resources are insufficient in terms of both quantity and quality, (x) laws regarding the running of business in the zone are unclear or unstable. If the above-mentioned negative phenomena occur simultaneously, then a phenomenon of negative synergy takes place. The sum of adverse circumstances acts stronger than each of them separately.

In Poland, cases of inhibition of local subzone development, which lost their strategic investors (lack of investment in the assumed time or withdrawal of permission due to non-compliance of investment with permission conditions) were observed. However, it did not exhibit the character of a collapse of a pole, but rather scratching a weak anti-pole development, which lost the ability to polarise space over time.

Withdrawal of investors from the zone has an adverse effect not only on the investment potential of the area, but also promotes a negative social phenomena, such as the inhibition of entrepreneurship, the emergence of counterproductive behaviour and “schadenfreude” (malicious joy). It is intensified when there is no economic justification for such decision, and is based on political factors or strategic decisions established at higher levels of the organizational structure of the corporation.

Among the currently operating growth poles in Poland, a characteristic, strong specialisation is observed in the automotive industry. One should avoid monocultural development of areas, especially changing the rules of public aid during the course of long-term economic networking, breaking down the previous lock-in and lock-out of regions. This type of model development, to a great extent, threatens the development of anti-poles as a result of the collapse of the anti-growth pole.

Inflow of investments, which does not induce profit and supply multiplier effects and consequently does not lead to polarisation of space, may indicate that inflow of new investments is inadequate to the needs of the region, or industrial structure of new investments is not adapted to the potential of the region and its endogenous potential as well, or new investments do not create associations with the economy of the region.

Lack of polarisation may be the result of a bad location of the zone or improper determination of conditions of running business within the zones, which consequently leads to the the following effects:

- neutral gear – some investments in SEZ would arise in the region, even in the absence of SEZ within their area, or any opportunities to obtain tax exemptions; this reduces

the incentive effect generated by subsidies for less-developed regions. In this way, one reduces the investment attractiveness of the subsidised area, which was originally located outside the spatial boundaries of profitability. However, in contrast to the initial situation, much greater benefits are reached by investors due to reduced operating costs in the area within the boundaries of profitability, and the budget loses due to smaller tax revenues,

- substitution – the gradual transfer of business from outside the area to within the zone (and in accordance with the authorisation), thereby reducing or eliminating existing business outside the privileged area,
- displacement – assistance for businesses in SEZ, due to costs of reduction and their operation, may contribute to the displacement of public entities, which are not covered by public aid,
- enclaves – enterprises from the zone use tax exemptions and cheap labour resources, but acquire business partners located outside the region, where they also sell manufactured goods.

In such a situation, positive effects resulting from the SEZ functioning in the region are basically limited to reduction of the level of unemployment. Formation of economic zones should be supported by complementary actions in relation to tax preferences, i.e. generation of associations and cooperation with the business environment. Support from the public funds should not be limited to homogeneous forms of assistance in the form of subsidies, or tax exemptions, but should sign in to wider financial activities from the public funds.

Establishing favourable conditions for running a business in the form of a special economic zone entails a risk that may have negative effects for regional development and formation of investment attractiveness of the region. External investors, who decided to invest in the zone, may constitute the source of risk. Their negative impact on regional development results from deepening of monoculture, provisional state of activity, lack of innovation, not adjusting to the specific nature of the environment or loss of the ability to fulfil the conditions of the permission. The surrounding area may also constitute a source of risk, especially unclear or unstable laws, lack of technological absorption, low level of development of entrepreneurship and local business partners and adjusting the resources of production to investor's needs. Moreover, the risk can be created by the spatial structure of the zone. It occurs when the privileged area is not defined properly, and there is a lack of relevant partners essential for cooperation (leading entities, lack of small- and medium-sized enterprises, research and development institutions, business environment institutions).

The above-mentioned source of investment risk, in most cases, results from the lack of implementation of the conditions necessary to achieve the growth and development of the investment attractiveness of the SEZ.

Numerous risks associated with the formation of special economic zones and anti-growth poles therefore require the use of a system for monitoring changes in the local and regional economy. Our model captures the growing changes and implements the preventive actions aimed at protecting job positions and facilitating the transfer of released labour resources as a result of lost jobs in the economic zones. This phenomenon may occur not only at the local level, as exemplified in the Polish areas, but also in larger

regions. The method proposed in this paper may be used at different levels of taxonomic divisions, bearing in mind that the critical size of the investment, which separates the small from the large zones, must be adjusted appropriately to the scale of the concentration of business activity and the size of the region stimulated by the zones.

One of the limitations of the proposed research method, is the fact that the research was accreied out during a specified period of time, without taking into account effects of earlier, or later investments. We make an assumption, simplifying the case, that the analysed investments have not started before the conducted analysis. This error will be present for any analysed period. In order to eliminate this effect, one can use the 5-year analysis period with a 1-year shift. It would allow creating a changes monitoring system, using a proper level of taxonomic system for establishing a spatial scale for observations (not only in the LAU2 scale, as it is used in Poland, due to the low scale of Polish special economic sub-zones). It points to the further need of research concerning dynamic aspects' use in the proposed method.

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Organizational Dysfunctions: Sources and Areas

Jacek Pasieczny, Beata Glinka

ABSTRACT

Objective: The purpose of this article is to identify and describe various types and sources of organizational dysfunctions.

Research Design & Methods: The findings are based on literature review and ongoing empirical research project conducted among private sector organizations. The empirical study can be situated within interpretative approach; open interviews and observations were used to collect data.

Findings: The study indicates that various types and sources of organizational dysfunctions can be identified in organizations operating in Poland. The sources of dysfunctions may be found both within the organization and its environment. Regardless of its specific features, most of the dysfunctions may be interpreted as an undesirable goal displacement. Very often areas of these dysfunctions are strongly interconnected and create a system that hinders organizational performance. Yet, it is difficult to study these phenomena as respondents are unwilling, for various reasons, to disclose the problems faced by their organizations.

Implications & Recommendations: The results imply that the issue of organizational dysfunctions requires open, long-lasting and comparative studies. Recommendations for further studies are formulated in the last section of the paper.

Contribution & Value Added: The paper provides insight into “the dark side of organizing” by identifying sources and areas of dysfunctions. It also reveals difficulties connected with conducting research on dysfunctions within the Polish context.

Article type: research paper

Keywords: organizational dysfunctions; pathology; sources of dysfunctions; areas of dysfunctions; goal displacement

JEL codes: M10, L00, L22

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INTRODUCTION

The phenomena and mechanisms as a result of which organizations fail to reach their goals are commonly referred to, among others, as errors, dysfunctions, pathologies, or deficiencies. However, the analysis of these phenomena requires a more precise definition. Error means doing something incorrectly, it is inaccuracy or a phenomenon as a result of which the system fails to work as intended. Error is generally of an occasional character (Pasieczny, 2013, p. 378). Although organizational consequences of errors can be quite severe, their perpetrators do not always bear the consequences. It is (usually) connected with the lack of intentionality. An error is treated as an unintentional deviation, occurring against the will of its perpetrator. Interestingly enough, the intended action with the same adverse effects usually faces general disapproval and brings organizational consequences. On the other hand, some researchers imply, that errors and failures, even if non-intentional are often treated as blameworthy (Edmondson, 2011). That can start a blame game and prevent learning from failures. This suggests that even economic institutions use non-economic criteria for evaluating phenomena and behaviour.

Before we move on with our analysis, the concepts that we discuss in our paper need to be clarified. Dysfunction is a phenomenon that adversely affects a particular social system. Prolonged exposure to dysfunction can lead to a pathological condition. To put it simply, dysfunction can be treated as a mechanism hindering smooth operation of an organization. Pathology in organization is a relatively permanent deficiency, which causes waste in the economic sense and (or) in the moral sense surpassing the limits of social tolerance (Kieżun, 2012, p. 16). Similarly, pathology in management is a serious long-term deficiency in the processes of the organization's management. However, the boundary between dysfunction and pathology is sometimes difficult to grasp, as indicated in the literature. For example, according to Stocky "pathology is any dysfunction in the organization; one that prevents the organization from achieving its realistic targets in due time and with the use of specific measures" (Stocki, 2005, p. 49). Organizational deficiency is a term of a praxeological origin and is the opposite of efficiency – praxeological evaluation of good performance in terms of effectiveness, benefits and economy. Deficiency is therefore insufficient extent of efficiency in an organization or in a specific process.

The purpose of our text is to describe various types and sources of organizational dysfunctions. In order to do so we analyse the relevant literature and conduct empirical qualitative research. In the subsequent parts of this article we present a short literature review, describe methods used in empirical study and present initial results of our empirical investigation, including both sources and areas of pathologies. Conclusions, as well as some limitations and suggestions for further research are included in the last part of the paper.

LITERATURE REVIEW

Dysfunctions as a Field of Analysis

Dysfunctions have been analysed and studied since the very beginning of their existence. These issues (though not explicitly) are discussed in works by Xenophon or in the Code of

Hammurabi. The whole industrial trend of classical management science derived from the desire to eliminate organizational dysfunctions by engineers. Yet, contemporary literature addresses the problem surprisingly rarely, given the scale of the needs. Many studies are fragmentary or have informative character only. Perhaps positive developments seem more attractive as an object of the analysis than negative ones, as success is more appealing to researchers than failure (Samuel, 2010, p. 1).

Only a few researchers have made dysfunction the central point of their analyses. Most address the issue merely “by the way”, analysing selected aspects of organizational management. These authors include, among others Einarsen, Hoel, Zapf and Cooper (2005), Goffnett, Lepisto and Hayes (2016), Jamil and Panday (2012), and others.

Researchers focusing on administration were more successful. Crozier (1967), Merton (1940; 1957), Selznick (1943), Gouldner (1954), Finer (1941), Osborne and Gaebler (1992), Weingast and Moran (1983), Kiežun (2012), or Batko (2013), and many others managed to identify the sources, mechanisms and describe dysfunctions in the functioning of bureaucratic organizations.

Analysis of dysfunction in business is – as already noted – difficult and very often limited to selected areas (hierarchical problematic, functional areas) of the organization. This does not mean, however, that no attempts have been made to develop broader and more universal theories. Some of them combined business and public administration in their works. The authors of such theories include Barnard (1940), March and Simon (1964), Kiežun (2012), Stocki (2005), Koźmiński (2004; 2008), Glinka and Pasieczny (2008), Argyris (1977; 1999), Samuel (2010), Meyer and Zucker (1989), Guy (1989), and others. It must be noted that a broad spectrum of problems has been taken under consideration: the nature of managerial work, organizational structures, goals formulating and many others.

The variety of concepts addressing dysfunctions illustrates the practical and theoretical importance of this phenomenon. The field is developing, and the changing business environment calls for more research and deeper understanding of the nature, sources and consequences of dysfunctions.

Sources of Organizational Dysfunctions and Pathologies

Pathologies understood as long-term deficiencies in operations, are inherent in all forms of organized human activity. It may be even concluded that management would not have become a separate discipline if people had not faced problems with the organization (in a substantive sense, attribute sense and functional one). Assessment of a phenomena and identification of sources of pathologies have always been subject to constant evolution. This is due to the aforementioned multiplicity and dynamics of stakeholders, but also changes in the area of moral standards. The analysis of pathologies is indeed firmly rooted in the ethical context.

The mechanism of negative empowerment (autonomy) leading to goal displacement can be considered as an universal source of pathologies. Negative empowerment involves putting, among others, the ultimate goal aside or replacing it with another main goal, changing the mode of operation; it is a change of the goal in which the mean (intermediate target) becomes the main objective (Kiežun, 2012, p. 16). Negative empowerment (autonomy) and goal displacement are the main sources of bureaucracy, addressed, among others by, March and Simon (1964), Merton (1957) or Crozier (1964).

Goal displacement mechanisms (although the author himself does not use this concept) are the basis of analysis by Dobrzyński (2012), who studies pathologies in the functioning of modern corporations. Most authors, however, are looking for sources of pathologies in selected areas of the organization's operation, or focus their attention on selected organizations. Sources of pathologies in administrative organizations are easy to identify because they are inherent in the assumptions of the bureaucratic model – application of the principles of formalization, impersonality, documentation and area of competences strictly defined by the law results in a negative internalization of organizational rules, errors in formalization and behaviour oriented on risk minimization by workers.

The study of the sources of pathologies in business is more difficult not only because of difficult access to data, but also due to a different nature of business organizations. Unlike administration, their operation is based – or is supposed to be based – on the universal homeostasis market mechanism, which stimulates them to undertake ongoing corrective measures. Prolonged pathological conditions in organizations operating on the market can be deadly threats for them. Therefore, abnormalities in market organizations are rapidly corrected, and thus more difficult to observe. For this reason, people usually do not look for general mechanisms of pathology in companies, but for sources of selected subsystems of organizational pathologies. In other words: we expect organizations (understood as certain socio-technical systems operating within their environment) to correct dysfunctions in order to regain equilibrium (Kozłowski & Obłój, 1989). Moreover, managers have many different tools to help them overcome the lack of equilibrium: strategy, structure, culture, procedures (Kozłowski & Obłój, 1989). However, in contrary to this typical approach Meyer and Zucker (1989) present the concept of permanently failing organizations – organizations that are permanently unable to obtain their goals and correct major dysfunctions. In other words, under some circumstances homeostasis cannot be taken for granted, and that calls for a deeper reflection on pathologies in business organizations.

The causes of pathological phenomena in the broadly understood social domain, are observed, among others, by Stocki (2013), Lencioni (2005) or Samuel (2010). Pathologies are the result of organizations taking over the behaviour and the system of values of their chief members. They include in particular, the reluctance to change or immunization to change, loss of responsibility and commitment, lack of trust, fear of conflict, dishonesty, greed, and other features.

Other researchers look for sources of pathologies in philosophy, politics and specific organizational solutions (Gestmann, 2001; Slatter & Lovett, 2001). Pathogenic organizational solutions include, among others, poorly designed and excessively oppressive control systems, hiding and shifting costs to other parts of the organization (budgets), dogmatism, functional “shredding” (fragmentation) of organization, lack of redundancy, inefficient communication systems and many other problems.

Phenomena occurring at the boundary of the organization and its environment may be treated as a separate category of sources of pathologies. This area is addressed, among others, by Kozłowski (2008), Samuel (2010), Meyer and Zucker (1989), Bogle (2009). They include such potentially dangerous phenomena as strong pressure to do things quickly, shorter planning horizon, pathological lack of confidence, focus on con-

tinuous growth of profits, clientelism and blurring boundaries between politics and business, and other problems.

MATERIAL AND METHODS

The research project underlying this article is based on interpretative assumptions. This project consists of two major parts: literature review and empirical study conducted¹ in Polish private owned organizations of different sizes. The study continues, yet the already carried out work allows us to draw preliminary conclusions.

The first stage of the study was to analyse the literature. This helped to identify a “working list of dysfunctions” which was intended to further the studies. The second stage of the study was designed to broaden this “working list of dysfunctions”, as well as to understand their nature and sources. For that reason qualitative methods were used to obtain data: anthropological interviews (with an open list of topics to be discussed with interviewees) and observations. This is an ongoing project, over 20 interviews were conducted till now (March 2015 – September 2016). The interviews were conducted with managers at various management levels, and entrepreneurs/business owners. All, except one, managed organizations or business units in Poland. One of the respondents was a high-level manager of an international company, first in Romania and later in Russia. The length of the interviews ranged from 30 minutes (the shortest interview) to over 6 hours (the longest, continued at several meetings). Among the respondents, there were 8 entrepreneurs (owners of small or micro businesses), 13 managers of medium-sized and large companies and one employee of a housing co-operative. Most of the interviews were recorded and transcribed, during the rest detailed notes were made. Transcribed text as well as research notes were the basis of analysis and identification of categories.

In the empirical study some serious difficulties were encountered. They included, firstly, difficulties in obtaining information, and secondly – interpretation problems. Problems with obtaining information are universal and they are widespread. However, in the case of studies on dysfunction, the reluctance to participate in the study seems to be even more visible. Respondents refuse to participate in the study or agree to be interviewed provided none of the raised problems may be subject of any publication, even anonymous one. Some interviewees do not allow for any recording. Such reactions, though understandable, make researchers’ work very difficult. Organizations care about their image and employees are worried about their jobs. During the research, the authors of the article encountered situations where employees were reluctant to even provide information, which was available on the organizations’ websites.

Problems with interpretation stem from the fact that many organizational issues cannot be unambiguously assessed. Different, and sometimes even the same groups of stakeholders, yet playing different roles in different circumstances, provide different interpretations to the observed phenomena. This means in practice that a specific issue may be viewed differently by different actors in an organization – executives, subordinates, trade unions, etc. Moreover, in a private conversation various phenomena can be presented and assessed in quite a different way than during official speeches, in the

¹ Currently the team of 3 researchers is involved in interviews¹ conducting.

presence of others etc. The problem is also human tendency to look for the closest, direct causes of the problem only. Senge (2002, pp. 33-34) refers to it as the “focus on events”. This constitutes an obstacle, especially when searching and analysing organizational dysfunctions, namely mechanisms distorting smooth operation of the organization.

The above-mentioned issues as well as the objective of the study, namely to get to know, understand and create a “non-exhaustive list of dysfunctions” were a factor determining the choice of the methodology for the second stage of the study. It would be difficult or even impossible to achieve a similar objective with the use of quantitative methods.

RESULTS AND DISCUSSION

Sources of Dysfunction

In the literature review section of our paper we described three major groups of sources of dysfunctions discussed in the literature: (i) social domain/system, (ii) internal solutions (systems, procedures, management philosophy), (iii) environment/management at the boundaries.

Social Domain

Our research, in general, supports the assumption of an importance of a social system as a potential source of dysfunctions. These problems were pointed by the interviewed senior managers, who indicated dishonesty and lack of loyalty among employees as sources of pathologies. Medium level managers also pointed to bad relationships, which are the result of abuse of or improper use of power by superiors.

Entrepreneurs paid the least attention to social sources of pathologies. Only a few of them mentioned the problem of dishonesty, but – interestingly – attributed it to the conditions of cooperation with large international corporations. In their view, there is a serious contradiction between the declarative domain (to which they include, among others, the existing codes of business ethics in corporations) and unfair practice used in cooperation between large enterprises with small companies.

Internal Solutions

One of the surprising results of our study was that managers and entrepreneurs rarely considered internal solutions as a source of pathologies. In the conducted studies, only few respondents – managers in corporations – considered some of the above-mentioned phenomena to be a source of dysfunction. Several respondents addressed the issue of excessive economization in the organizations’ operations which results in different pathologies. For obvious reasons, these phenomena were significantly less apparent for entrepreneurs – owners of small businesses.

This result can be interpreted in many ways. Firstly, the simple interpretation is that in practice internal solutions – structures, policies etc. – are not significant as a source of dysfunctions. Secondly, managers and entrepreneurs can avoid this area, as, at least to some extent, it is under their control (i.e. they may avoid admitting own mistakes). This area requires further empirical evidence.

Environment/Boundaries

In our study, respondents often pointed to this group of sources of pathologies. The state was usually considered to be the most powerful stakeholder. Businesses almost unanimously referred to the state as a dangerous and unfriendly institution. The state is perceived by them as a uniform entity generating external burdens and uncertainty. This negative perspective is not even changed by reliefs and incentives offered to businesses by the state. The state is assessed as a dysfunctional entity and an entity generating dysfunctions. Managers also mentioned the state as a source of pathologies, but also pointed to the very strong dysfunctional influence of the media, cultural conflicts and structures of the business environment.

Areas of Dysfunction

Pathologies are manifested in various ways and in different areas of the organization. Depending on the assumptions they may be analysed in the context of the theory of the population ecology of organization, life cycle of the organization, psychopathology or by using the metaphor of the body system. Also achievements of the followers of the diagnostic approach, seeking and creating instruments of identification and analysis of pathologies in specific situational conditions are quite abundant. This group includes such authors as Stocki (2013), Gestmann (2001), Guy (1989), and Bennett and Robinson (2000), who created an interesting typology of organizational behaviour deviating from the standard.

On the basis of the conducted interviews we can identify two major areas of pathologies: a) strategic area and b) operational area. Although such a division is not always clear-cut, yet it helps to organize diversified problems and issues which were revealed during the interviews in a spontaneous and – consequently – often a bit chaotic manner.

Strategic Area

The main pathologies identified during the research in the strategic area are:

1. Lack of a clear strategic objective. Respondents pointed to the lack of clearly formulated organizational goals, constantly changing goals and inconsistencies in their implementation, either partial or total failure to translate strategic goals into operational activities. Interestingly, this problem was also mentioned by entrepreneurs, who often were not able themselves to determine their strategic objectives and perceived the risks resulting from this fact.
2. Absence of relationship between the inputs and the effects. This phenomenon is observed in larger companies mainly, where cost centres are organizationally separated from income centres. This can be manifested by investments in low profitability projects, elimination of key resources, or dysfunctional organizational sub-optimizations.
3. Organizational dissociation – a type of disorder of organizational identity manifested in growing autonomy of divisions/departments or internal contradictions. This can be manifested in excessive economization (savings) accompanied by wastefulness in the organization itself.

4. Lack of trust. This seems to be a universal pathology which is present in both large corporations and small businesses. Apart from the sources of this pathology (they are largely external), it results in numerous problems, such as bad relations within the organization, excessively complex control systems, poor relations with external stakeholders etc. As a result, all this boosts transaction costs.
5. Exhaustion of resources. Exhaustion of resources is the most often an undesirable consequence of decisions, and not the result of the deliberately implemented policy. Nevertheless, the consequences of this pathology can be of strategic importance for the organization. In practice, exhaustion of resources can lead to excessive outsourcing, staff overloading with duties, layoffs (or employee departure caused, for example, underestimation) of experienced employees etc. In the case of small businesses this can be a physical overloading of the owner with responsibilities or the failure to ensure effective funding for the company's growth.

Operational Area

In the area of operational subjects, the respondents mentioned numerous phenomena which could be classified as pathologies. The most important of these include:

1. Pathological organizational games. This problem was pointed out by managers of larger companies. Games aimed at gaining control over scarce organizational resources are manifested in the formation of strong informal groups, "empire building" by growing number of organizational units, reluctance to share knowledge or only superficial activity.
2. Bad relationships. This phenomenon, depending on its intensity, may be either a factor slightly impeding work or a serious pathology threatening the functioning of the company. Bad relationships may prevail between superiors and subordinates, but can also concern horizontal relationships. Symptoms of bad relationships include a range of behaviours, from gossiping and backbiting to violence and jeopardizing.
3. Ineffective communication. Despite unlimited technical possibilities of information flows, there are problems with communication in many organizations. The main obstacle is not the technical aspect, but the lack of knowledge or lack of motivation of executives to communicate effectively. Inadequate communication often results in misunderstandings within the organization and in inferior contacts between the organization and its environment, low motivation, conflicts and problems with the introduction of changes.
4. Inappropriate division of labour. Many authors emphasize negative consequences of excessive formalization. Meanwhile, our respondents mentioned insufficient formalization in the area of the division of labour as a very tedious phenomenon. It occurs that higher level superiors are reluctant to make precise division of duties among employees. They tend to officially motivate it by the desire to ensure flexibility of the organization, but in practice it can also be perceived as part of organizational game, aimed at safeguarding the interests of the stronger party in a superior-subordinate relationship. This phenomenon may result in conflicts, declining motivation or quality problems.
5. Unethical behaviour and breach of the law. This problem can affect all levels and all organizations and it is the consequence of organizational policies to a limited extent

only. Corruption, bribery, theft, mobbing, sexual harassment can occur also in those organizations which put an emphasis on ethical behaviour. Sometimes, however, such actions and attitudes are somewhat forced by external conditions (e.g. the necessity to submit dumping bids in public tenders) or are the result of low moral standards in the organization. The respondents noted a number of unethical and illegal forms of behaviour, but usually outside their organization.

CONCLUSIONS

Pathologies are an integral part of the organization and the first theoretical studies in the field of management focused on dysfunctions and pathologies. Despite many studies, it is still a relatively underresearched area. This is due both to the difficulty in obtaining information, and the specific character of the topic itself characterized by ambiguity, subjectivity and dynamics. Pathologies can be observed in all subsystems of the organization and its environment. Their identification is difficult, but possible and desirable. Although the Western business culture is a culture of achievement and success, yet identification of the causes, mechanisms and symptoms of pathological phenomena can bring important theoretical and – above all – practical benefits.

Our study revealed some similarities with other researchers' findings, especially in the field of external sources of pathologies (Stocki, 2013; Samuel, 2010). Some unexpected areas and sources of pathologies were also revealed in our research. For example, insufficient formalization, described as a potential source of pathologies can be a surprising declaration in the times of fighting with bureaucracy in both public and private sector, and constant creativity quests considered as a source of competitive advantages. Also, one of the surprising results of our study was that managers and entrepreneurs rarely considered internal solutions as a source of pathologies. From the psychological point of view this phenomenon is quite easy to understand. However it indicates, that in most cases, an open culture in which managers and other employees are willing to reveal mistakes and learn from them is still not a reality. Such a culture may be declared by managers, but its implementation requires more time, effort, and reflective approach.

At this point two main limitations must be stressed: the number of interviews conducted and the nature of the phenomenon under investigation. As far as the first limitation is considered, we plan to continue the research project to collect more data and obtain theoretical saturation. The second limitation cannot be fully addressed, but in order to decrease its impact on the research results, we decided to apply qualitative methods, and in the future we plan to include more diversified methods of data collection (more observations, projection, narrative methods). More long-term, comparative studies are needed to provide a better understanding of the phenomenon under investigation, especially in a private sector. As we mentioned, more theories were formulated to address the issues of pathologies and dysfunctions within a public administration.

It seems, that the following areas of comparison may be crucial for a deeper understanding of the phenomenon of dysfunction and its causes:

- public vs private sector organizations,
- organizations operating in different business contexts (economic, legal, cultural).

On the base of such comparative in-depth studies not only more general conclusions will be possible, but also the formulation of practical guidelines for manager on how to avoid dysfunctions.

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For each issue we accept submissions not later than 6 months before the particular issue releasing. The deadlines for submissions are as follows:

- By the end of June for the March Issue (no. 1),
 - By the end of September for the June Issue (no. 2),
 - By the end of December for the September Issue (no. 3),
 - By the end of March for the December Issue (no. 4).
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Call for Papers

Guidelines for Authors

We accept articles proposals if they fit the aim and scope of our journal. We release current calls for papers on our website in the ‘announcement’ section. In each issue we publish thematic articles (based on our call for papers) and other articles (submitted continuously to the first available issue).

The articles must be between 20 000 and **40 000** characters (including spaces as well as all necessary tables, figures, graphs and illustrations, the list of used references and any appendixes if needed).

The articles must be prepared **with accordance to our technical requirements** and taking our academic ethics code into account. **The articles must be prepared in our template.** We will reject submissions not prepared according to our requirements.

Before submitting your article, please read and apply the following rules:

- **EASE Guidelines for Authors of Scientific Articles to be Published in English** (version of June 2014) explaining in details how to compose a scientific article according to international standards.
- **APA Style Manual** (6th edition of June 2009) explaining in details how to use and cite references and how to apply linguistic rules while writing in English.

For very detailed submission instructions, including *guidelines for authors*, and all other information visit our website at: www.eber.uek.krakow.pl – please read there the following documents very carefully before your submission:

- Guidelines for Authors (*.pdf),
- **Template for Articles** (*.docx, *.dotx, *.rtf, *.pdf),
- Internal Review Form – Checklist of the Article(*.docx),
- Copyright Transfer(*.docx).

Submission of the Manuscripts

We use the OJS system for submissions. After having finished your article, when your files are ready, visit the [online submission website](#). You will need to log into the system:

- If you know your login details, use your user ID and password to log on.
 - If you do not know your login details, check to see if you are already registered by clicking on the '[Forgot your password?](#)' button and following the on-screen instructions.
 - If you are not already registered, you can register by clicking on the '[Not a user? Register with this site](#)' button on the login screen and following the on-screen instructions. Please remember you should register as ‘Author’, however we advise you to register also as ‘Reader’ and ‘Reviewer’. If you don’t mark ‘Author’ status, you will not be able to submit your article.
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Reviewing Policy and Procedures

1. The editor-in-chief or another member of the editorial team will make a preliminary decision to either accept the paper for further review or reject the paper (desk's rejection) if the submitted article doesn't meet our editorial requirements or is out of our aim and scope. The author will be notified of the decision as soon as possible. In certain situations, this decision will be made following consultation with a member of the editorial council specializing in a given area of research.
 2. The reviews are prepared by at least 2 independent reviewers indicated by the editorial board. The independent reviewers are not associated with the author's parent institution (external reviewers to the author).
 3. Reviews are prepared using a double-blind peer review. This process is based on the rule that the reviewer does not know the identity of the author and vice versa.
 4. Each review is issued in written form (later revealed to the Author) and ends with a recommendation for or against publication.
 5. In addition to the recommendations made by reviewers, the Author may receive additional editorial suggestions from:
 - **the editor-in-chief**, only in urgent cases,
 - **an issue editor** as the executive editor responsible for the issue,
 - **an associate editor** or **a guest editor** if there is a special need,
 - **a layout editor** for technical and editorial comments,
 - **a statistics editor** if the paper contains statistics.
 6. The author must reply to all comments and suggestions (a special form is required to be filled in and to be sent back).
 7. The editor-in-chief provides the final opinion based on a very detailed process.
 8. Before submitting your article, please make familiar with the following forms and evaluation criteria, which must be applied by Authors (files are available at our website for downloading after logging in):
 - **Internal Review Form – Checklist of the Article** (*.docx),
 - **External Review Form** (*.docx),
 - **Statistical Review Form** (*.docx),
 - **Technical Review Form** (*.docx),
 - **Author's Statement after the Reviews** (must be attached to the revised article),
 - **Copyright Transfer** (must be signed before publishing).
 9. Before publishing each article is proofread by a language editor (a native speaker or a bilingual speaker). Authors are obliged to apply all necessary changes, however they can negotiate special terminology use.
 10. Prior to publishing, the Corresponding Author must sign and submit the *Copyright Transfer*, otherwise we will not be able to publish the given article.
 11. Each Author must follow the principles of transparency and best practices in scholarly publishing (see our website for details). Editors and the Publisher will be documenting all forms of scientific misconduct and malpractice, particularly violations of ethics and violations of science principles. Any such cases will be reported to the employer of the author and to the relevant public and state institutions.
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Publication History

So far we have published the following thematic issues of EBER:

2013

- Vol. 1, No. 1 Global Opportunities and Local Businesses
- Vol. 1, No. 2 Modern Challenges for International Business in Europe
- Vol. 1, No. 3 Contemporary Issues in International Economics
- Vol. 1, No. 4 Modern Challenges for Business and Economy in CEE Countries

2014

- Vol. 2, No. 1 Global Entrepreneurship from the European Perspective
- Vol. 2, No. 2 Globalisation of Economies and Industries
- Vol. 2, No. 3 FDI in Central Europe
- Vol. 2, No. 4 New Developments in International Business and Economics in CEECs

2015

- Vol. 3, No. 1 Social Entrepreneurship and Socio-Economic Development
- Vol. 3, No. 2 International Entrepreneurial Orientation: Theoretical Perspective
- Vol. 3, No. 3 Immigrant and Ethnic Entrepreneurship
- Vol. 3, No. 4 Dilemmas of Modern Economy and Business

2016

- Vol. 4, No. 1 Economics of Higher Education
 - Vol. 4, No. 2 Real Estate and Construction Economics
 - Vol. 4, No. 3 Advancing Research in Entrepreneurship
 - Vol. 4, No. 4 Entrepreneurship in the Global Context
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