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Thematic Issue

Advancing Research in Entrepreneurship

edited by

Agnieszka Żur

Cracow University of Economics, Poland

Maria Urbaniec

Cracow University of Economics, Poland



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Table of Contents

Editorial	7
Agnieszka Żur, Maria Urbaniec	

Thematic Articles

Entrepreneurship and Economic Freedom: Do Objective and Subjective Data Reflect the Same Tendencies?	11
Burak Erkut	
Who Doesn't Want to be an Entrepreneur? The Role of Need for Closure in Forming Entrepreneurial Intentions of Polish Students	27
Aleksandra Wąsowska	
University Business Incubators: An Institutional Demand Side Perspective on Value Adding Features	41
Sven Dahms, Suthikorn Kingkaew	
The Concept of Technological Entrepreneurship: The Example of Business Implementation	57
Ewa Badzińska	
Positive Leadership and Corporate Entrepreneurship: Theoretical Considerations and Research Propositions	73
Przemysław Zbierowski	
The Potential of Business Environment Institutions and the Support for the Development of Small and Medium-sized Enterprises	85
Renata Lisowska	
Enhancing SMEs' Growth by Investing in Organizational Capital	103
Urban Pauli	
Measuring Entrepreneurial Orientation in the Social Context	117
Rafał Kusa	
Involving Young People in Polish and Lithuanian Social Enterprises by Fostering Entrepreneurial Skills and Abilities as Entrepreneurial Opportunity at University	131
Jolita Greblikaite, Włodzimierz Sroka, Neringa Gerulaitiene	

Other Articles

Innovative Behaviour of High-Tech Internationalized Firms: Survey Results from Poland Krzysztof Wach	153
Backshoring in Light of the Concepts of Divestment and De-internationalization: Similarities and Differences Michał Młody	167
Corporate Reputation and Performance: A Legitimacy Perspective Honggui G. Li, Zhongwei W. Chen, Guoxin X. Ma	181
Relationships between Talent Management and Organizational Performance: The Role of Climate for Creativity Tomasz Ingram	195

Editorial Announcements

EBER in Focus	207
Call for Papers	208
Reviewing Policy and Procedures	209
Publication History	210

Editorial

This issue marks another step in our growth as an international journal devoted to entrepreneurship aspects. This thematic issue is titled Advancing Research in Entrepreneurship and consists of nine thematic articles and four nonthematic articles.

Interest in entrepreneurship as a field of research does not cease to grow and flourish. Entrepreneurship research covers a very broad set of questions relating to a variety of academic disciplines. Much research still focuses on the heart of entrepreneurship to explain the logic and actions that underline entrepreneurial behaviour. Following Shane and Venkataraman (2000) ground setting paper, some authors claim the existing entrepreneurship research can be best split into two domains: exploration and exploitations of opportunity (Carlsson *et al.*, 2013). In spite of immense progress made, entrepreneurship research still remains much polyphonic and emerging perspectives although have much in common with each other, have largely developed and evolved independently (Fisher, 2012). That is why constant exchange and cooperation between the international community of entrepreneurship scholars is important.

EBER hopefully contributes to this much needed exchange. From its launch EBER is dedicated to serve as a broad and unified platform for revealing and spreading economics and management research relating to entrepreneurship. Along the way, we have featured several thematic issue devoted specifically to entrepreneurship. We have tried very hard to keep up with the currents global and local (CEE) developments and challenges hoping that this journal will contribute to finding answers to very pressing questions. Authors have recently identified several fields in entrepreneurship research which remain neglected or underdeveloped. These include interactions between entrepreneurship and different types on institutions, the link between entrepreneurship and human welfare, macroeconomic conditions and the role of entrepreneurship in economic growth (Carlsson *et al.*, 2013), as well as the creation of opportunities through human propensities (Ramoglou & Tsang, 2016) and behavioural entrepreneurship research (Fisher, 2012). There are many calls to introduce more structure and consistent theories on one hand and expansion of behavioural aspects of entrepreneurship research on the other. Scott Shane himself admitted that there is still need “identify errors and confusing points” in entrepreneurship research (Shane, 2012, p. 18). Therefore much remains to be done.

In the past much attention has been paid by EBER authors to very current developments in entrepreneurship theory and practice such as international aspects of entrepreneurship (Vol. 2, No. 1 and Vol. 3, No. 2), to social entrepreneurship (Vol. 3, No. 1) as well as to immigrant and ethnic entrepreneurship (Vol. 3, No. 3). In the current issue we hope to make a contribution to the signalled underdeveloped areas of entrepreneurship research.

The thematic section of this issue opens with a paper which refers to the macroeconomic conditions of entrepreneurship. In the paper *Entrepreneurship and Economic Freedom: Do Objective and Subjective Data Reflect the Same Tendencies?* the author, Burak Erkut, tests whether the same tendencies on economic freedom and entrepreneurship are captured and reflected by objective and subjective data collected. This is an important aspect bridging the gap in global reporting systems.

In the next article *Who Doesn't Want to be an Entrepreneur? The Role of Need for Closure in Forming Entrepreneurial Intentions of Polish Students* Aleksandra Wąsowska explores how one of the human factors, need for closure, affects entrepreneurial intentions. This study confirms that personal-level variables strongly influence entrepreneurial behaviours.

The third thematic paper *University Business Incubators: An Institutional Demand Side Perspective on Value Adding Features* written by Sven Dahms and Suthikorn Kingkaew draws on the institutional environment and support for entrepreneurship. In their study, these authors test to what extent geographical location in the world determines the demand for university incubators value adding features among entrepreneurs.

Next, several authors turn our attention to a broad field of firm-level entrepreneurship. Ewa Badzińska presents a synthesis of up-to-date research on the quickly growing field of technological entrepreneurship. In her paper *The Concept of Technological Entrepreneurship: The Example of Business Implementation* the author also illustrates the phenomenon of technological entrepreneurship on a specific business case.

Przemysław Zbierowski remains in the field of firm-level entrepreneurship and delivers strong theoretical argumentation for the potential contributions of positive leadership to the practice of corporate entrepreneurship. The paper *Positive Leadership and Corporate Entrepreneurship: Theoretical Considerations and Research Propositions* provides fresh inspiration for new avenues of research while merging entrepreneurship theory with organizational science and management studies.

The next paper *The Potential of Business Environment Institutions and the Support for the Development of Small and Medium-sized Enterprises* written by Renata Lisowska remains in the area of entrepreneurship institutional support environment. The author has assessed the role of business environment institutions based on research carried out on a sample of 590 SMEs.

The next article *Enhancing SMEs' Growth by Investing in Organizational Capital* written by Urban Pauli verifies the relationship between investments in organizational capital and firm performance. The research performed on a sample of 180 Polish SMEs found that investment in organizational capital in the first stage of firm development is positively correlated to almost all performance indicators.

The next article *Measuring Entrepreneurial Orientation in the Social Context* Rafał Kusa makes a much needed attempt to provide measures of entrepreneurial orientation that would be applicable to social enterprises. The proposed scale draws on existing entrepreneurial orientation scale and modifies it to fit the social context.

The last thematic paper titled *Involving Young People in Polish and Lithuanian Social Enterprises by Fostering Entrepreneurial Skills and Abilities as Entrepreneurial Opportunity at University* written by Jolita Greblikaite, Włodzimierz Sroka and Neringa Gerulaitiene an-

alyzes the state of development of social entrepreneurship in Poland and Lithuania suggesting that specific skills obtained at the university can serve as entrepreneurial opportunity and boost the development of social enterprises in these countries.

The second section consists of nonthematic articles and starts with a paper written by Krzysztof Wach *Innovative Behaviour of High-Tech Internationalized Firms: Survey Results from Poland*. This article presents the results of a study conducted on a sample of 263 Polish high-tech firms and suggests that the innovativeness of a firm contributes to the intensification of the internationalization process.

Michał Młody, on the other hand explores the concepts related to de-internationalization. In his paper titled *Backshoring in Light of the Concepts of Divestment and De-internationalization: Similarities and Differences* the author provides an in-depth analysis of two very current concepts, gaining much interest and attention due to shifting behaviour of international firms.

Next, Honggui G. Li, Zhongwei W. Chen, Guoxin X. Ma in their article titled *Corporate Reputation and Performance: A Legitimacy Perspective* investigate the mediating role of innovation legitimacy in the relationship between corporate reputation and firm growth in the Chinese context.

The last article is written by Tomasz Ingram and titled *Relationships between Talent Management and Organizational Performance: The Role of Climate for Creativity*. The author tests the mediating role of climate for creativity in the relationship between talent management and organizational performance on a sample of 326 large organizations.

We trust that this issue of EBER offers diverse intriguing perspectives and insights into current entrepreneurship theory developments. The presented voices come from different places around the world and enrich our understanding of the fascinating puzzle of entrepreneurship.

Agnieszka Żur
Maria Urbaniec
Thematic Issue Editors

REFERENCES

- Carlsson, B., Braunerhjelm, P., McKelvey, M., Olofsson, C., Persson, L., & Ylinenpää, H. (2013). The evolving domain of entrepreneurship research. *Small Business Economics*, 41(4), 913-930.
- Fisher, G. (2012). Effectuation, causation, and bricolage: a behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship Theory and Practice*, 36(5), 1019-1051.
- Ramoglou, S., & Tsang, E. (2015). A realist perspective of entrepreneurship: Opportunities as propensities. *Academy of Management Review*, 41(3), 410-434.
- Shane, S. (2012). Reflections on the 2010 AMR decade award: delivering on the promise of entrepreneurship as a field of research. *Academy of Management Review*, 37(1), 10-20.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.

Entrepreneurship and Economic Freedom: Do Objective and Subjective Data Reflect the Same Tendencies?

Burak Erkut

ABSTRACT

Objective: The paper addresses the question whether the same tendencies on entrepreneurship, innovation and economic freedom can be captured by subjective (Global Entrepreneurship Monitor) and objective (Index of Economic Freedom) data – and to which extent one can classify countries by different data sources in a theoretical framework based on the national competitiveness of each country.

Research Design & Methods: Main method used was the direct discriminant analysis. Since this approach has shortcomings, selected variables from an exhaustive CHAID analysis (Erkut, 2016a) were used to predict the degree of economic freedom of the country based on the answers of experts.

Findings: To determine the degree of economic freedom in a country, the effective enforcement of intellectual property rights legislation and quick access to utilities are the two variables with the most informational content. 86.8% of the original grouped cases was classified correctly – this is above the widely accepted threshold of 75%.

Implications & Recommendations: A new trend in entrepreneurial research is to build compound indices based on different data sources. It is important to understand whether parts of a compound index reflect the same tendencies. This paper gives formal empirical evidence supporting this hypothesis.

Contribution & Value Added: The contribution of this work lies in closing a research gap defined by Coduras and Autio (2013) concerning Global Entrepreneurship Monitor, suggesting that GEM results should be tested against objective data sources such as Index of Economic Freedom.

Article type: research paper

Keywords: entrepreneurship; economic freedom; innovation; discriminant analysis

JEL codes: C53, L26, O38

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INTRODUCTION

Although the concept of economic freedom is a subjective matter, surveys and composite indices were constructed in the past to measure the degree of economic freedom, as well as entrepreneurship activity and how innovative individual countries are.

Research on entrepreneurial activity has increased in the recent years. According to Coduras and Autio (2013, p. 49), more effort has to be put to determine the usefulness of the data resources on entrepreneurship, since the tendency is to offer integrated information instead of observing partial aspects in an isolated fashion – in other words, integrated indices on entrepreneurship need a careful selection of indicators. According to Coduras and Autio (2013), the most advanced integrated index is the Global Entrepreneurship and Development Index (GEDI), proposed by Zoltan Acs and Laszlo Szerb in 2008. This integrated index uses objective and subjective data to bridge the gap between entrepreneurship, individuals and institutions.

The focus of this paper is on the Global Entrepreneurship Monitor (GEM) and the Index of Economic Freedom (IEF). GEM is a subjective survey bridging the gap between innovativeness and entrepreneurship, thus differing from other indexes and focusing both on the opinions of experts as well as citizens, trying to categorize the participating countries by means of their economic activities and innovative openness. IEF is an index based on hard facts of the participating countries, which tries to categorize countries by their degree of economic freedom – emphasizing how easy or hard it is for the individuals to “work, produce, consume and invest” (Heritage Foundation, 2016) without any significant impediments. Both data sources are used in the GEDI.

The research question is whether the same tendencies on entrepreneurship, innovation and economic freedom can be captured by subjective (GEM) and objective (IEF) data – and to which extent one can classify countries by different data sources in a theoretical framework based on national competitiveness of each country.

This research question will be answered by using linear discriminant analysis based on previously selected variables by a decision tree algorithm (Erkut, 2016a) as an attempt to reduce the dimension of the data. The selected variables will be used to understand whether one can have the same classification for the degree of economic freedom with the subjective data on entrepreneurship. The rest of the paper is as follows: After a literature review, the theoretical models of GEM and IEF will be introduced. The methods will be clarified; the results will be presented and discussed. A conclusion follows, where the limitations on research will be discussed.

LITERATURE REVIEW

Since the research trend is tending to build composite entrepreneurship indicators based on subjective and objective data, the importance of data sources to be used in such indicators must be analysed deeply, and it is necessary to put more effort for the assessment of the relevance of information sources to the entrepreneurial research context. Entrepreneurial measurements should offer integrated information to the users (Coduras & Autio, 2013, pp. 48-49). These measurements necessarily need to combine both the perceptions regarding entrepreneurship and hard facts from objective data.

The context of the research is framed within the background of market processes, where entrepreneurs are the driving forces behind these processes. To be more precise, entrepreneurs are seen as forces that are “keeping the economy in continual motion, urged on to incessant progress” (Gustafson, 1992, p. 5). For the emergence of long-term growth, both technological progress and the associated introduction of novelties (innovative services and goods) to the economy are the most important causal factors (Lehmann-Waffenschmidt, 2008, p. 108).

Indeed, to avoid the pretence of knowledge (Hayek, 1989), not central planners but individuals can be entrepreneurially active and offer solutions to problems they perceive in the society, with their uniquely possessed knowledge, since “the knowledge of circumstances of which we must make use never exists in concentrated or integrated form, but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess.” (Hayek, 1945, p. 519). Entrepreneurial discovery drives market processes (Kirzner, 1997, p. 62). According to Wong, Ho and Autio (2005, p. 345), high potential total early stage entrepreneurial activity is the only factor which has a significant effect on growth rates. This hypothesis was confirmed in a cross-country, Cobb-Douglas production function type context in the authors’ research.

Individuals’ entrepreneurial activity alone is necessary, but not sufficient for the long-term sustainable economic performance of a country – the idea behind fiscal freedom goes back to low tax burdens for entrepreneurial activity. Ockey (2011) uses the data from IEF to test the hypothesis of a positive correlation between economic freedom and fiscal performance. The results of this paper confirm this hypothesis; furthermore, the results also suggest that trade freedom and property rights also contribute to the economic performance of a country, the latter having a positive relationship with fiscal performance (Ockey, 2011, p. 15).

Employing the idea of disaggregating the determinants of economic freedom, Heckelman and Stroup (2000) focus on the isolated effects of the non-aggregated determinants of economic freedom on economic growth, by using a procedure based on the relevance of each factor determined by a multivariate regression procedure. According to their findings, “differences in economic freedoms between nations can explain almost half of the variation in growth” (Heckelman & Stroup, 2000, p. 542). The conclusion is in line with Erkut’s (2016a) empirical work regarding the structural similarities of countries for competitiveness and innovation.

In this study, Erkut (2016a) focuses on the GEM national experts survey (NES) dataset for understanding how similar experts from countries belonging to the same stage of economic development observe impediments on competitiveness and innovativeness of their country. By using a decision tree algorithm, the author extracts 12 variables that describe more than half of the variation within the dataset. Effectiveness of governmental institutions, intellectual property legislation, gender equality, quick access to utilities and the discovery of opportunities by young entrepreneurs to establish new firms altogether constitute the most important factors extracted to explain the variation in the dataset.

Especially the role of intellectual property rights as the variable with the highest explanatory power (Erkut, 2016a) suggest the move towards a knowledge-based economy, where freedoms of individuals engaging in economic activities play an important role “to

pursue, explore or implement new ideas” (Audretsch & Thurik, 2000, p. 24). Therefore, policy designs should aim to deliver strategies for the emergence of firms’ success and their sustainability (Audretsch & Thurik, 2000, p. 32) without intervening in the planning decisions of individuals. In this sense, understanding economic freedom and impediments towards reaching economic freedom gain importance.

Snodgrass (2008) compares alternative business enabling environment indices based on those countries, in which USAID works. He finds out that GEM findings on bureaucracy differs from the Doing Business Index of the World Bank by means of the ranking of countries, and based on this fact, he says that “no one index merits exclusive reliance” (Snodgrass, 2008, p. 12).

Hanke and Walters (1997, p. 126) find out that IEF is positively correlated with the Economic Freedom of the World Index of the Fraser Institute. According to the authors, differences between the two indices are in their views of monetary policy and government size, the latter being neutral in case of government size. This is a critical point in answering the question of who will plan the economic activity in a country. Hayek (1945, p. 524) asks this question for clarifying responses to “rapid adaptation to changes in particular circumstances of time and place”, where a central board cannot be efficient on deciding what to plan for the economy. The policy implication is known to be the decentralisation of the economy, where government intervention does not occur; through that way, individuals can plan accordingly, using their specific knowledge to provide solutions to market gaps. In line with Hayek’s (1945) point of view, IEF is chosen to be the index capturing this necessary aspect of knowledge problem in the society.

In an early work, McMullen, Bagby and Palich (2008) focus on opportunity-motivated entrepreneurship and necessity-motivated entrepreneurship and explain them with the ten factors of economic freedom as well as GDP level. The novelty of their paper lies within the two distinctions of entrepreneurial activity and how these two are differently influenced by government’s different restrictions on different factors of economic freedom (McMullen *et al.*, 2008, p. 889).

In an attempt to compare GEM and IEF, Diaz-Casero, Diaz-Aunion, Sanchez-Escobedo, Coduras and Hernandez-Mogollon (2012, p. 1708) make use of three questions building together the total entrepreneurial activity index. According to the findings, government size and fiscal freedom fosters entrepreneurial activity. Furthermore, for the group of countries classified as innovation-driven economies, an overall increase in economic freedom has a positive impact on opportunity based entrepreneurship.

Kuckertz, Berger and Mqepa (2016) employ a fuzzy-set qualitative comparative analysis approach for analysing the link between economic freedom and entrepreneurial activity based on IEF. The focus on configurations of the factors of economic freedom shows that these vary according to the stage of economic development (Kuckertz *et al.*, 2016, p. 1292). The authors conclude that economic freedom is more able to explain necessity driven entrepreneurship than opportunity driven entrepreneurship.

Although there is this distinction in the literature, it is true that both necessity driven and opportunity driven types of entrepreneurship go back to the introduction of a novel product to the economy, where perceptions of economic actors play an important role in perceiving information and transferring it to knowledge in their minds. Since knowledge is dispersed in the society, every economic actor possesses a piece of the dispersed

knowledge, which is their competitive advantage if they utilize this knowledge in form of a product and the corresponding business conception (Erkut, 2016b). Therefore, the role of perceptions in new product development becomes equivalently important for both the opportunity driven and the necessity driven types of entrepreneurship. This is what Erkut (2016b) calls the nano-dimension of the evolutionary economic analysis, which becomes the necessary step prior to the generation of knowledge.

Coduras and Autio (2013) implement an empirical methodology using discriminant and regression analyses; their focus is on the comparison of the Global Entrepreneurship Monitor with the Global Competitiveness Index (GCI). The authors find out that the GEM data can be seen as a complementary data source to the GCI (Coduras & Autio, 2013, p. 71). For further research, they suggest a research program based on the comparison of GEM with other relevant, subjective (IEF) and objective (Ease of Doing Business Index) data sources which are used to build up the composite GEDI, which is the point of departure for the research question to be answered in this analysis.

In this sense, this analysis can be seen as a continuation of the Coduras-Autio research program on comparison of different data sources composing GEDI for the tendency of concordance. This analysis is needed for understanding the importance of complementary objective and subjective data sources. It can also be the source of ideas towards shaping the economic landscape for enabling entrepreneurial activity in a free market economy without impediments or bureaucracy that keep individuals away from shaping the market process.

MATERIAL AND METHODS

Theoretical GEM Model

GEM was launched with the target of creating a possibility for the comparison of entrepreneurship on an international level in 1997 (Kelley, Bosma & Amoros, 2011, p. 61). Bosma, Coduras, Litovsky and Seaman (2012, p. 4) state that until the launch of GEM, an international comparison of entrepreneurial data was not possible due to differences in government databases and missing entrepreneurial data in some countries.

GEM defines entrepreneurship as “any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business” (Bosma *et al.*, 2012, p. 20).

GEM’s objectives are based on a number of premises, which implicitly imply the economic freedom of individuals in a broad sense (Bosma *et al.*, 2012, pp. 7-8): (1) Economic growth depends on the dynamics of the entrepreneurial activities, (2) Economies requires individuals who are able and motivated to be entrepreneurs, and a society accepting and supporting entrepreneurs, (3) Entrepreneurs need to be ambitious.

Since the first GEM global study in 1999, both quality of the research methodology and the quality of surveys tend to increase. GEM comprises a wide range of developing and developed economies of over 50 nations and is conducted by a consortium of universities. It differs from other surveys on the same field by means of two guiding purposes (Kelly *et al.*, 2011, pp. 13-15): First of all, GEM aims to focus on venture creation, whereas other studies on entrepreneurship focus on firm-level data. Second, GEM aims

to promote entrepreneurship as an ongoing, dynamic process. Implicitly, this second guiding purpose implicitly describes entrepreneurship as a living organism with the phases beginning “from intending to start, to just starting, to running new or established enterprises and even discontinuing these” entrepreneurial activities (Kelley *et al.*, 2011, p. 13). It categorizes countries by means of their entrepreneurial activities according to the theoretical framework of national competitiveness by Porter (1990a, 1990b).

GEM is based on two parts: an adult population survey (APS) and a national experts survey, which both are subdivided into global-individual level datasets and national summaries. APS is aimed to identify aspirations, entrepreneurial attitudes and activities of individuals, whereas NES is targeted at (at least 36) national experts of each country, which focuses on the nine key Entrepreneurial Framework Conditions (EFC) which are listed as finance, government policies, government programs, entrepreneurial education and training, R&D transfer, commercial and professional infrastructure, internal market openness, physical infrastructure and services, cultural and social norms (see e.g. the website of GEM consortium) and further topics listed as degree of skills and abilities to start up in the population, opportunities to start up, high growth businesses support, women’s entrepreneurship support, and encouragement in addition. These EFC are associated with the theoretical model of Porter (Ahlstrom & Bruton, 2010, p. 437). The current, revised GEM model relies on the typology of Porter (1990a, 1990b) to categorize the economies as “factor-driven”, “efficiency-driven” and “innovation-driven” within an entrepreneurial framework. The target of the revision was set to be the description and the measurement of the conditions, which can lead to economic growth based on entrepreneurship and innovation.

Theoretical IEF Model

IEF was launched jointly by The Wall Street Journal and The Heritage Foundation (an American conservative think tank) in 1995 with the aim of developing “a systematic, empirical measurement of economic freedom in countries throughout the world” (Holmes, Feulner & O’Grady, 2008, p. 1).

IEF defines economic freedom as a notion which encompasses “all liberties and rights of production, distribution, or consumption of goods and services” (Miller & Kim, 2010, p. 58). With the existence of the rule of law and the protection and respect of the individual freedoms by the state, people should be able to consume, produce, invest and work freely. Based on this definition, economic freedom is measured by using ten different components, which are relevant to economic development and national welfare as well as the welfare of each individual. The ten economic freedoms are (1) business freedom (“the individual’s freedom for founding and running a firm without state intervention”), (2) trade freedom (“how open is the economy to international trade”), (3) fiscal freedom (“to what extent does the government permit persons to use their income and wealth for themselves”), (4) government spending (“is there excessive government spending which may lead to a crowding out of the private consumption?”), (5) monetary freedom (“is the currency stable?”, “are the prices determined by markets?”), (6) investment freedom (“is there an open investment environment?”), (7) financial freedom (“how transparent is the financial system?”), (8) property rights (“are people able to accumulate private property and wealth?”), (9) freedom from corruption (“do the individuals gain personally at the expense of the whole by being dishonest?”) and (10) labour

freedom (“are the individuals able to work as much as they want and wherever they want?”). Each component is scored on a 0 to 100 scale individually. The simple average of these scores builds the overall economic freedom of a nation (Miller & Kim, 2010, p. 60), where each component is treated equally. For each component, there are different data sources to calculate the score (for the calculation methods see the Miller & Holmes, 2010, pp. 457-468).

Discriminant Analysis

The purpose of the analysis is to compare the results of GEM expert survey with the IEF results as different sources of information regarding entrepreneurship and to understand if one can classify countries for the degree of economic freedom according to IEF with the results of GEM expert survey.

Therefore, the research hypothesis is that the GEM NES results can classify the 53 nations participating in GEM for the corresponding IEF stages of economic freedom. Since GEM NES results are subjective results based on the opinions of experts, whereas IEF results are objective results based on statistics and economic hard facts, the aim is to analyse if one can find a link between objective and subjective data on entrepreneurship and economic freedom.

Discriminant analysis consists of two sources of data: The results of the 2010 GEM NES survey and the economic freedom scores of 2010 IEF. A methodological issue arises from the categorization of countries according to their respective economic freedom scores. In the 2010 IEF, there are 4 countries categorized as “repressed”, 11 countries which are categorized as “mostly unfree”, 27 countries which are categorized as “moderately free”, 9 countries which are categorized as “mostly free” and only 2 countries which are categorized as “free”. Of course, this classification does not reflect the whole IEF but only the proportion of 53 countries which are considered in both GEM and IEF. Because of this uneven distribution, these five groups will be combined into three groups; “repressed/mostly unfree” with 15 countries, “moderately free” with 27 countries and “mostly free/free” with 11 countries. The aim of this reduction is to have enough observations for all categories to proceed with the analysis.

Independent variables are those that are selected by a decision tree algorithm to describe the data set in a reduced dimension, explaining 56% of the variance in the data set (Erkut, 2016a). These are Likert scaled variables, which can be treated as interval scales for data analysis (Brown, 2011). The method for the discriminant analysis is the direct method, which takes in all the independent variables simultaneously in the analysis. For three categories, two discriminant functions will be estimated. The starting point is a univariate ANOVA analysis, which shows how each independent variable can classify the three groups individually. For the classification, the a-priori probabilities will be chosen to be computed from the group sizes. Also, separate covariance matrices will be used. The strength of this method is drawing boundaries between groups of data with the target, having similar data points (in terms of their closeness) in the same group and having different data points in different groups. However, it is fair to mention that this method does not work if there is not a minimum number of cases in each group.

RESULTS AND DISCUSSION

Results

From the univariate ANOVA analysis (Table 1), it can be seen that five out of twelve variables can classify the three groups significantly with a given 0.05 significance level.

Table 1. Univariate ANOVA Analysis

Variables	Wilks' Lambda	F	df1	df2	Sig.
Intellectual Property Rights (IPR) legislation is efficiently enforced	0.510	24.067	2	50	0.000
New or growing firms can get good access to utilities (gas, water, electricity, sewer) in about a month	0.600	16.666	2	50	0.000
Sufficient debt funding available for new and growing firms	0.986	.348	2	50	0.708
Good opportunities for new firms have considerably increased in the past five years	0.986	.361	2	50	0.699
Colleges and universities provide good and adequate preparation for starting up and growing new firms	0.930	1.875	2	50	0.164
Men and women get equally exposed to good opportunities to start a new business	0.959	1.064	2	50	.353
Plenty of good opportunities for the creation of new firms	0.958	1.105	2	50	0.339
More good opportunities for the creation of new firms than there are people able to take advantage of them	0.980	0.499	2	50	0.610
Government programs aimed at supporting new and growing firms are effective	0.829	5.139	2	50	0.009
A wide range of government assistance for new and growing firms can be obtained through contact with a single agency	0.865	3.895	2	50	0.027
Science parks and business incubators provide effective support for new and growing firms	0.713	10.048	2	50	0.000
Most people consider becoming an entrepreneur as a desirable career choice	0.944	1.471	2	50	0.240

Source: Author's own calculations using SPSS.

In table 2 the functions at group centroids can be seen. It is important to see that function 1 separates the mostly free or free countries from those which are moderately free and repressed or mostly unfree; centroids are average discriminant scores for each discriminant function.

At this stage, the goodness of fit of the discriminant functions has to be understood. For this purpose, the eigenvalues and Wilks' Lambda for the two discriminant functions can be observed in tables 3 and 4 respectively.

From the eigenvalues, one can see that with 16.1% of the explained variance, the second discriminant function has a lower explanatory power than the first one, which explains 83.9% of the variance. Canonical correlations are 0.786 and 0.488 respectively.

The relative importance of each variable can be seen from the structure matrix in table 5, where correlations of the variables with the discriminant functions are given. The

given correlations are Pearson correlation coefficients and show that the variables “In my country, the Intellectual Property Rights (IPR) legislation is efficiently enforced”, “In my country, new or growing firms can get good access to utilities (gas, water, electricity, sewer) in about a month”, “In my country, science parks and business incubators provide effective support for new and growing firms”, “In my country, Government programs aimed at supporting new and growing firms are effective”, and “In my country, a wide range of government assistance for new and growing firms can be obtained through contact with a single agency” have a higher correlation with the first discriminant function.

Table 2. Functions at group centroids

Country group at IEF Report 2010, 3 Categories	1	2
Repressed / Mostly Unfree	-1.444	-0.586
Moderately Free	-0.063	0.532
Mostly Free / Free	2.123	-0.505

Source: Author's own calculations using SPSS.

Table 3. Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	1.619 ^a	83.9	83.9	0.786
2	0.312 ^a	16.1	100.0	0.488

a. First 2 canonical discriminant functions were used in the analysis.

Source: Author's own calculations using SPSS.

Table 4. Wilks' Lambda

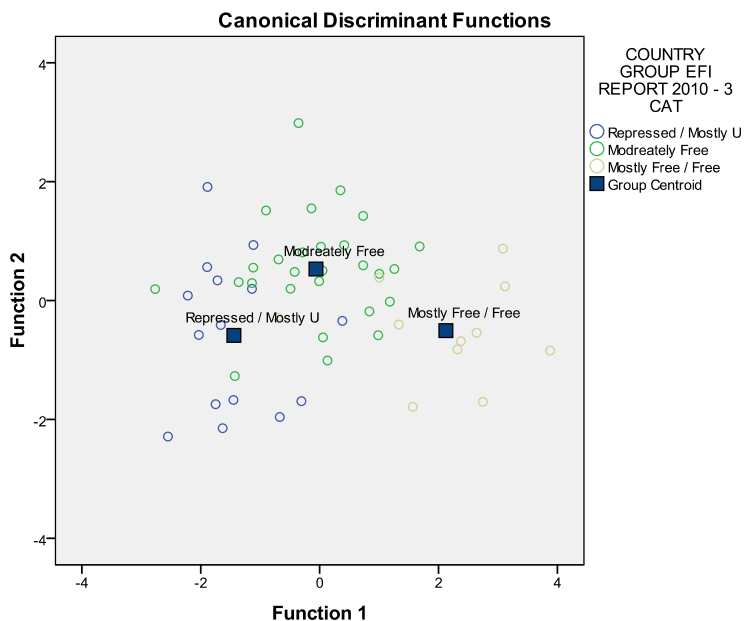
Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	0.291	54.919	24	0.000
2	0.762	12.077	11	0.358

Source: Author's own calculations using SPSS.

The variables “In my country, most people consider becoming an entrepreneur as a desirable career choice”, “In my country, Colleges and universities provide good and adequate preparation for starting up and growing new firms”, “In my country, there are plenty of good opportunities for the creation of new firms”, “In my country, there are more good opportunities for the creation of new firms than there are people able to take advantage of them”, “In my country, there is sufficient debt funding available for new and growing firms” and “In my country, men and women get equally exposed to good opportunities to start a new business” have a higher correlation with the second discriminant function.

The classification results on table 6 give an idea on how well the group memberships were predicted. Here, it can be seen that 86.8% of the original grouped cases was classified correctly. Since a widely accepted threshold in the literature is 75% and above, the discriminant analysis is acceptable.

Figure 1 is the all-groups scatter plot, which is based on the centroids of the three categories and the two estimated discriminant functions. The vertical axis has the values of the second function, whereas the horizontal axis has the values of the first function. The group (class) memberships were plotted with different types of points.

**Table 5. Structure Matrix**

Variables	1	2
Intellectual Property Rights (IPR) legislation is efficiently enforced	0.768*	-0.149
New or growing firms can get good access to utilities (gas, water, electricity, sewer) in about a month	0.631*	0.262
Science parks and business incubators provide effective support for new and growing firms	0.492*	-0.174
Government programs aimed at supporting new and growing firms are effective	0.349*	-0.168
A wide range of government assistance for new and growing firms can be obtained through contact with a single agency	0.303*	0.155
Good opportunities for new firms have considerably increased in the past five years	-0.093*	0.035
Most people consider becoming an entrepreneur as a desirable career choice	-0.104	0.364*
Colleges and universities provide good and adequate preparation for starting up and growing new firms	0.154	0.343*
Plenty of good opportunities for the creation of new firms	0.087	-0.320*
More good opportunities for the creation of new firms than there are people able to take advantage of them	-0.056	-0.219*
Sufficient debt funding available for new and growing firms	0.019	0.207*
Men and women get equally exposed to good opportunities to start a new business	0.144	-0.169*

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions. Variables ordered by absolute size of correlation within function.

* Largest absolute correlation between each variable and any discriminant function

Source: Author's own calculations using SPSS.

Grey butterfly-like points representing mostly free and free countries are found at top right in the diagram, with high values of the first discriminant function and low values of the second discriminant function. Moderately free countries are found at the centre of the diagram with relatively higher values of the second discriminant function and relatively lower values of the first discriminant function; they are represented with rhombus black dots. Mostly unfree and repressed countries are found in the bottom left of the diagram with negative values of both discriminant functions; they are represented with round black dots.

Table 6. Classification Results

Country group at IEF Report 2010	Predicted Group Membership			Total
	Repressed / Mostly Unfree	Moderately Free	Mostly Free / Free	
Repressed / Mostly Unfree	12	3	0	15
Moderately Free	2	25	0	27
Mostly Free / Free	0	2	9	11
Repressed / Mostly Unfree	80.0	20.0	0	100
Moderately Free	7.4	92.6	0	100
Mostly Free / Free	0	18.2	81.8	100

Source: Author's own calculations using SPSS.

Although there are some outliers for the latter two cases, the conclusion is that a country with a high value of the first discriminant function and a low value of the second discriminant function can be assigned to the group of mostly free and free countries, whereas a country with low values of both functions can be assigned to the group of repressed and mostly unfree countries. A country with a high value of the second discriminant function and a low value of the first discriminant function can be assigned to the group of moderately free countries. Of course, due to the situation with the outliers, there might be difficulties with the classification, but it is not expected to classify 100% correctly due to different natures of objective and subjective data.

Discussion

Discriminant analysis is the main finding of this empirical research and gives answer to the question whether it is possible to classify the GEM NES participating nations in the corresponding stage of economic freedom according to IEF.

The result of the discriminant analysis was given as two discriminant functions. With the discriminant analysis, the correct classification of nations for the degree of economic freedom based on the subjective information given from GEM NES was 86.8%, which is a high correct classification rate.

It can be said that the classification was especially successful for moderately free countries (92.6% of the cases were classified correctly) and less successful for repressed/mostly unfree countries (80% of the cases were classified correctly) and mostly free/free countries (81.8% of the cases were classified correctly), where "less successful" is seen only by relative means – since the threshold of 75% was exceeded in all three groups, meaning that the analysis holds good explanatory power.

The misclassifications can be due to the fact that from the original five groups of IEF, three groups were created. This was necessary for the analysis to proceed, but the critical assumption can also be related to the GCI classification of countries. In the original setup, there are also two transition phases in addition to the three stages of economic growth due to Porter, which are “merged” in order to have a categorization based on three groups. Therefore, the overall classification was not endangered.

It is important to notice that all innovation-driven economies except USA were categorized correctly for the corresponding degree of their economic freedom. The analysis based on three groups was resulted with two discriminant functions. The first discriminant function showed a higher correlation with variables which can be considered as the institutional framework which can support new and growing firms. Intellectual property rights, quick access to utilities (gas, water, electricity, sewage), support of science parks, business incubators and government, reduced bureaucracy by offering a wide range of government services through a single agency and the environment of increased opportunities are key topics which can be associated with the first discriminant function. All variables except the last one were positively correlated with the first discriminant function.

The second discriminant function showed a higher correlation with variables which can be considered as the perceptual components for becoming an entrepreneur. Perceptions as a fuzzy front-end to generation of new knowledge was the point of view of Erkut (2016b). Entrepreneurship as a career choice, training programs, opportunities to create new firms, financial possibilities and equal opportunities based on gender equality are the key topics which can be associated with the second discriminant function, at first forming the perception of what entrepreneurship means by describing it in terms of the perception of the availability of opportunities. Whereas the opportunities were negatively correlated with the second discriminant function, financial possibilities and training programs as well as entrepreneurship as a career choice were positively correlated.

In the original five categories categorization of IEF in 2010, Chile was categorized as a “mostly free” country. Due to lack of observations for “free” countries, the two categories were merged to have the category of “mostly free/free” countries. Chile was misclassified as a “moderately free” country. Since Chile's overall freedom score, 77.2, is very close to the lower boundary of 80 points for being a free country, it is interesting to see why Chile was misclassified. From the detailed evaluation of the ten economic freedoms, it can be seen that Chile has an especially high score for property rights (Miller & Holmes, 2010, p. 148).

According to the GEM NES global-national level data, the average value for Chile corresponding to the effective enforcement of intellectual property rights is 3.0 – which means “neither true nor false” in the Likert scale. Also the statement on the effective support of science parks and business incubators was rejected by the experts from Chile in average (2.72). Therefore, not only the property rights were differently assessed (since IEF focuses on the property rights in a more general sense), but also business freedom was seen as more restrictive than it appears to be. Without some sort of support for start-ups, it is harder to enter into markets. Indeed, one can also say that based on the subjective opinion of experts, a more pessimistic evaluation of the country's economic freedom is realized as a result of the analysis. Corruption and high income taxes are the

weaknesses listed by the IEF for Chile (Miller & Holmes, 2010, p. 147); they have to be taken into account for explaining the pessimistic evaluation.

Also for Ecuador, the classification was not precise. In the original categorization, Ecuador was categorized as a “repressed” country; in the analysis, it was belonging to the group of “repressed/mostly unfree” countries, whereas it was classified by the analysis as a moderately free country. Interestingly, the result driven from the experts’ survey gives a more optimistic view of the degree of economic freedom.

An important point for Ecuador is the increasing government spending after the 2007 constituent assembly referendum (Miller & Holmes, 2010, p. 180). Since government spending is generally associated with short-term positive economic effects, this may also influence the opinion of the experts. From the global-national level GEM NES dataset, it can be seen that the statement “In my country, new or growing firms can get good access to utilities (gas, water, electricity, sewage) in about a month” has for Ecuador the national average 3.85 – which is closer to 4, “somewhat true” in Likert scales. According to the 2010 report of IEF, the regulatory environment has a negative effect on the start-ups (Miller & Holmes, 2010, p. 180). In this case, the opinion of the experts is different.

In the 2010 IEF, Uganda's categorization corresponds to the category of a “moderately free” country. The result of the analysis suggests that Uganda is a “repressed / mostly unfree” country. Also in this case, experts' opinion on the issue of intellectual property rights can play a role. The national average for Ugandan experts on the effective legislation of intellectual property rights corresponds to 1.48 – in Likert scales, 1 is “completely disagree” and 2 is “somewhat disagree”. Interesting for the Ugandan case is the different evaluation of IEF and GEM NES global-national level average value for the role of government programs supporting new and growing firms.

The Ugandan national level average value corresponding to the effectiveness is 2.03 – the experts disagree on the effectiveness of government programs in average, whereas the 2010 report of IEF says that “reforms have enhanced the entrepreneurial environment and fostered growth” (Miller & Holmes, 2010, p. 423). Uganda is below the world average for the time needed to start a business (25 days for Uganda, 35 days as world average) (Miller & Holmes, 2010, p. 424); therefore, there must be other factors that cause this divergence of interpretation, which is again subject to a more specific evaluation and analysis.

The last misclassified case is USA. The overall economic freedom score of the USA was 78.0 for 2010 – two points behind the threshold for being an economically free country, categorized as “mostly free”. As the categories merged, USA was in the group of “mostly free/free” countries. According to the results, USA was misclassified as a “moderately free” country. Both datasets are from the period of global economic and financial crises. Since USA was at the centre of these crises, it can be said that the experts' evaluation was more pessimistic than the evaluation of IEF – the “crisis” effect. This can also be understood from the sharp drop of seven economic freedoms out of ten for the US (Miller & Holmes, 2010, p. 432), whereas in the previous evaluations USA was categorized as a free country.

CONCLUSIONS

Based on the empirical findings of the study, it can be said that subjective (GEM NES) and objective (IEF) data reflect the same tendencies concerning entrepreneurship and economic freedom. Intellectual property rights, quick access to utilities, a well-functioning bureaucracy and a government supporting entrepreneurs are important factors to understand the interactions between these central concepts. The findings are in line with Ockey's (2011) contribution showing the close relation between economic freedom and intellectual property rights as well as with McMullen *et al.* (2008) work explaining entrepreneurship with economic freedom. Furthermore, the findings can also be associated with the findings of Kuckertz *et al.* (2016) showing the variation of influence factors according to the stage of economic freedom.

The contribution of this paper to the literature is based on four points: First, it was shown that a balanced collection of objective and subjective data is necessary for entrepreneurship research, which was also the point of view of Coduras and Autio (2013). Second, a combination of both perceptions and infrastructure support in a wide sense were identified as explanatory clusters of variables for the classification of countries according to their stage of economic freedom. Third, in particular, it was empirically tested that with GEM NES data, IEF can be forecasted to a large extent, although some misclassified cases were observed; both are important for the construction of GEDI.

The fourth contribution of this paper is based on the perspective of an entrepreneurially driven market process (Kirzner, 1997). The role of perceiving opportunities as well as the role model of entrepreneurship and support opportunities build an important cluster of variables in the analysis. This cluster is a reflection of the role of perceiving conditions during the generation of new knowledge and the introduction of novelties to the economy.

Still, some research limitations need to be highlighted. The research was done with data from 53 countries which are covered in both sources; however, due to methodological difficulties, the original five-category IEF was reduced to a three-category IEF in order to have enough observations in every group. Also the original GCI classification was reduced to three categories instead of having two additional transition phases. These were necessary steps for proceeding with the analysis, but they resulted in some misclassifications. Furthermore, Likert scaled variables from GEM NES were treated as interval scaled in line with Brown (2011) and Coduras and Autio (2013) although some researchers classify Likert scaled variables as ordinal scaled. This is known to the author of the paper; the methodological issues were kept in line with the research program defined by Coduras and Autio (2013).

Overall, it is necessary to collect both objective and subjective data with respect to entrepreneurship, since only the combination of hard facts and subjective perceptions can give an overview of how free a country is in terms of its inhabitants' entrepreneurial activity, which is the driving force behind markets (Kirzner, 1997).

REFERENCES

- Ahlstrom, D., & Burton, G. (2010). *International management: Strategy and culture in the emerging world*. Mason, OH: South-Western Cengage Learning.
- Audretsch, D.B., & Thurik, A.R. (2000). Capitalism and democracy in the 21st Century: from the managed to the entrepreneurial economy. *Journal of Evolutionary Economics*, 10, 17-34.
- Bosma, N., Coduras, A., Litovsky, Y., & Seaman, J. (2012). *GEM Manual: A report on the design, data and quality control of the Global Entrepreneurship Monitor*. London: Global Entrepreneurship Research Association (GERA).
- Brown, J.D. (2011). Likert items and scales of measurement? *Shiken: JALT Testing & Evaluation SIG Newsletter*, 15 (1), 10-14.
- Coduras, A., & Autio, E. (2013). Comparing subjective and objective indicators to describe the national entrepreneurial context: The Global Entrepreneurship Monitor and the Global Competitiveness Index contributions. *Investigaciones Regionales*, 26, 47-74.
- Diaz-Casero, J.C., Diaz-Aunion, D.A.M., Sanchez-Escobedo, M.C., Coduras, A., & Hernandez-Mogollon, R. (2012). Economic Freedom and Entrepreneurial Activity. *Management Decision*, 50 (9), 1686-1711.
- Erkut, B. (2016a). Structural similarities of economies in competition and innovation – a decision tree based approach. *Studia Oeconomica Posnaniensia*, forthcoming.
- Erkut, B. (2016b). From perceptions to new product development: product innovation & market shaping. *2016 NeuroPsychoEconomics Conference Proceedings*, 34.
- Gustafson, J.W. (1992). Entrepreneurship, Ideology and Economic Theory: An Appraisal. *The Journal of Economics*, 18, 1-7.
- Hanke, S.H., & Walters, S.J.K. (1997). Economic freedom, prosperity and equality: A survey. *Cato Journal*, 17(2), 117-146.
- Hayek, F.A. (1945). The use of knowledge in the society. *The American Economic Review*, 35(4), 519-530.
- Hayek, F.A. (1989). The pretence of knowledge. *The American Economic Review*, 79(6), 3-7.
- Heckelman, J.C., & Stroup, M.D. (2000). Which economic freedoms contribute to growth? *Kyklos*, 53(4), 527-544.
- Heritage Foundation (2016). *2016 Index of Economic Freedom*. Retrieved on June 30, 2016 from <http://www.heritage.org/index/about>
- Holmes, K.R., Feulner, E.J., & O'Grady, M.O. (2008). *2008 Index of Economic Freedom*. Washington, DC: The Heritage Foundation.
- Kelley, D.J., Bosma, N., & Amoros, J.E. (2011). *Global Entrepreneurship Monitor 2010 Global Report*. London: Global Entrepreneurship Research Association (GERA).
- Kirzner, I. (1997). Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach. *Journal of Economic Literature*, 35(1), 60-85.
- Kuckertz, A., Berger, E.S.C., & Mpeqa, E. (2016). The more the merrier? Economic freedom and entrepreneurial activity. *Journal of Business Research*, 69, 1288-1293.
- Lehmann-Waffenschmidt, M. (2008). Strukturähnlichkeiten und –ungleichheiten evolvierender Ökonomien. *Wissenschaftliche Zeitschrift der Technischen Universität Dresden*, 57, 105-109.
- McMullen, J.S., Bagby, D.R., & Palich, L.E. (2008). Economic freedom and the motivation to engage in entrepreneurial action. *Entrepreneurship Theory and Practice*, 32(5), 875-895.

- Miller, T., & Holmes, K. (2010). *2010 Index of economic freedom*. Washington, DC: The Heritage Foundation.
- Miller, T., & Kim, A.B. (2010). Defining economic freedom. In T. Miller & K. Holmes (Eds.), *2010 Index of economic freedom* (pp. 58-62). Washington, DC: The Heritage Foundation.
- Ockey, J.R. (2011). Economic freedom and fiscal performance: A regression analysis of indices of economic freedom on per capita GDP. *Undergraduate economic review*, 8(1), Article 9.
- Porter, M.E. (1990a). *The competitive advantage of nations*. New York: Free Press.
- Porter, M.E. (1990b). The competitive advantage of nations. *Harvard Business Review*, 68(2), 73-93.
- Snodgrass, D. (2008). *Alternative business enabling environment rankings – a review*. Washington: United States Agency for International Development.
- Wong, P.K., Ho, Y.P., & Autio, E. (2005). Entrepreneurship, innovation and economic growth: Evidence from GEM data. *Small business economics*, 24, 335-350.

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Who Doesn't Want to be an Entrepreneur? The Role of Need for Closure in Forming Entrepreneurial Intentions of Polish Students

Aleksandra Wąsowska

ABSTRACT

Objective: The objective of this paper is to broaden our understanding of the factors that shape entrepreneurial intention (EI). Specifically, we analyse how the need for cognitive closure (NfC) influences EI.

Research Design & Methods: We test our hypothesis using hierarchical regression models, based a sample of 129 Polish business students, controlling for a number of individual-level variables (i.e. gender, entrepreneurial role models, educational profile, entrepreneurial self-efficacy and locus of control).

Findings: We find support for the assertion that NfC negatively influences the level of EI. In comparison with the baseline model (control variables only), the explanatory power of the model including the NfC is significantly higher. Individuals that score higher on the need for cognitive closure declare lower entrepreneurial intentions.

Implications & Recommendations: This study suggests that EI is to a large extent influenced by relatively stable, dispositional, personal-level variables, thus indicating potential barriers to fostering entrepreneurship through institutional measures. However, further studies investigating the interactions between individual level and institutional level variables are needed in order to assess the impact of such measures on entrepreneurial intentions and behaviours. Such research will bring important practical insights into entrepreneurial education and public policy.

Contribution & Value Added: The originality of this work lies in incorporating NfC into the literature on antecedents of EI.

Article type: research paper

Keywords: entrepreneurial intention; personality; need for cognitive closure; students; entrepreneurship education; Poland

JEL codes: M13

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INTRODUCTION

One of the key elements of entrepreneurial activity is the process of forming the beliefs regarding the chances to succeed in a given venture (Schumpeter, 1911/1960). Therefore the fundamental questions asked in the entrepreneurship literature regard the ways in which these beliefs are formed and how they further translate into entrepreneurial behaviours (Shane & Venkataraman, 2000). Most of entrepreneurship scholars agree that the entrepreneur is the key to understand this phenomenon. This is why entrepreneurship, at first being predominantly investigated by economists and sociologists, in the last 30 years has received much attention in psychological literature. Numerous studies in this stream of research investigate individual differences as determinants of entrepreneurial behaviours. However, the rich body of literature on psychological determinants of entrepreneurship has yielded ambiguous results and there are still important knowledge gaps, relating mostly to cognitive and motivational antecedents of entrepreneurial behaviours.

The aim of this paper is to contribute to the discussion on psychological antecedents of entrepreneurial intentions by focusing on the role of the need for cognitive closure. Based on a sample of 129 Polish business students, using hierarchical regression analysis, we investigate the need for cognitive closure (NfC) as an antecedent of entrepreneurial intentions (EI), while controlling for entrepreneurial self-efficacy, locus of control, entrepreneurial role models, gender and educational profile. We find support for the notion that the need for cognitive closure is negatively related to entrepreneurial intent. To the best of our knowledge, this is one of the first studies incorporating the need for cognitive closure in explaining entrepreneurial intentions.

The article is structured as follows. We first present the literature review and develop our hypothesis. Next, we discuss the data collection procedure, sample, and operationalisation of variables. Then, we provide the results of the regression analysis. We also discuss both the theoretical and practical implications of our findings and the limitations of our study.

LITERATURE REVIEW

Entrepreneurial Intention as a Domain of Studies

Entrepreneurship has been defined as founding new organizations (Gartner, 1988), conducting entrepreneurial activity at ones' own sake (Zhao & Seibert, 2006) or discovering, evaluating and exploiting opportunities (Shane & Venkataraman, 2000). Global Entrepreneurship Monitor (GEM) defines entrepreneurship as "Any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business" (Reynolds, Hay & Camp, 1999, p. 3). All these definitions are behavioural, i.e. they relate to a specific behaviour or an intent to behave in a particular way (Rauch & Frese, 2007).

Following the notion that "intention is the best single predictor of behaviour" (Fishbein & Ajzen, 2010), a lot of research in the field of entrepreneurship has been focused on entrepreneurial intentions, defined as "the expressed behavioural intention to

become an entrepreneur" (Zhao, Seibert & Lumpkin, 2010, p. 383). The dominant theoretical frameworks in this stream of research are Ajzen's Theory of Planned Behaviour (Ajzen, 1991), originating from social psychology, and Shapero's Entrepreneurial Event Model (Shapero & Sokol, 1984), originating from the entrepreneurship literature. These models to a great extent overlap (Kautonen, van Gelderen & Fink, 2015) and have recently been integrated in a meta-analytical study by Schlaegel and Koenig (2014).

The rich body of literature on entrepreneurial intentions has been reviewed by Liñán and Fayolle (2015). Most influential papers in this field of research have been categorized into five groups. The first category covered papers discussing theoretical and methodological issues in IE research and testing the core models of IE. The second category covered papers focusing on personal-level variables, such as gender (Wilson, Kickul & Marlino, 2007), family role models (Carr & Sequeira, 2007), social capital (Liñán & Santos, 2006) and personality traits (Segal, Borgia & Schoenfeld, 2005). The third group of studies focused on the role of entrepreneurial education (Pittaway & Cope, 2007). Papers falling into the fourth category investigated the role of context and institutions, covering multi-country samples (Engle *et al.*, 2010). The last group of papers analysed intention-behaviour links, indicating that entrepreneurial intention is indeed a strong predictor of entrepreneurial behaviour (Kolvereid & Isaksen, 2006).

Based on their extensive review, Fayolle and Liñán (2014) indicated the importance of individual-level variables, especially those grounded in cognitive psychology.

Psychological Antecedents of Entrepreneurial Intentions

The potential of integrating insights from psychological research to study economic phenomena has been signalled by the award of the Nobel Prize in economics to Daniel Kahneman for his work on judgment and decision-making under uncertainty. The cognitive approach, focusing on cognitive structures, cognitive styles, cognitive biases and heuristics and decision-making logic, has recently become the dominant perspective in entrepreneurship (Baron, 2004). This perspective focuses on how entrepreneurs "think". Busenitz and Barney (1997) pointed out that entrepreneurs use intuition more extensively than managers. They also manifest more "overconfidence" and representativeness biases and are less concerned about the facts.

Literature on entrepreneurial cognition overlaps to a certain extent with a broad stream of research focusing on the role of personality in entrepreneurship. Studies investigating the relationships between personality traits (e.g. risk preferences, achievement motivations) and entrepreneurship started in the 1960s (Litzinger, 1965; Wainer & Rubin, 1969). However, by the late 1980s, this stream of literature had brought very few conclusive findings. As a result, numerous scholars raised serious doubts about the legitimacy of trait-based approach to study entrepreneurship. In his widely cited paper, Gartner (1988) stated: "I believe that attempt to answer the question 'Who is an entrepreneur?', which focuses on the trait and personality characteristics of entrepreneurs, will neither lead us to a definition of the entrepreneurs nor help us to understand the phenomenon of entrepreneurship" (p. 48).

Recently, interest in the role of personality in entrepreneurship re-emerges (Zhao, Seibert & Lumpkin, 2010). This has been attributed to two phenomena (Kaczmarek & Kaczmarek-Kurczak, 2012): the popularisation of meta-analysis as a technique allowing for analysing and integrating results from previous research, as well as the increasing

legitimacy of the Five Factor model (FFM) as a coherent framework describing personality dimensions. This model includes five broad personality traits: emotional stability, extraversion, openness to experience, agreeableness, conscientiousness (Costa & McCrae, 1992).

Zhao *et al.* (2010) have performed a meta-analysis of studies investigating the relationships between personality and entrepreneurial intentions and performance. They ground their study in career choice theory (Holland, 1997) and person-environment fit theory (Kristof, 1996). Both theories indicate that people choose career environment they fit and therefore, that vocational choices are to a certain extent reflection of personality. Based on the "task demands" and "work roles" related to the "job" of entrepreneur (i.e. goal achiever, relationship builder, risk taker, innovator), Zhao *et al.* (2010) formulate a set of hypotheses linking personality traits (i.e. Big Five and risk propensity) with entrepreneurial intentions and performance. Their meta-analysis indicated that emotional stability, extraversion, openness to experience, conscientiousness and risk propensity were positively related to entrepreneurial intentions. Moreover, all of these traits (with the exception of risk propensity) were positively related to entrepreneurial firm performance.

Rauch and Frese (2007) argue that broad traits, such as Big Five, are "distal and aggregated" and therefore they are not suited to predict specific behaviours, such as starting a business. They point at a number of specific personality traits, such as need for achievement, risk-taking, innovativeness, autonomy, locus of control, and self-efficacy, that are more directly linked to specific entrepreneurial behaviours. They call for the inclusion of other theoretical constructs in models explaining entrepreneurial behaviours, indicating the potential role of entrepreneurial cognition.

Need for Cognitive Closure

Recent contributions from cognitive psychology have brought a number of theoretical constructs that may be particularly relevant to explaining entrepreneurial intentions and behaviours. One of such constructs is the need for cognitive closure (Kruglanski, 1990).

Kruglanski (1990, p. 337) defines the need for cognitive closure as a desire for "an answer on a given topic, any answer, compared to confusion and ambiguity". NfC may be seen as a dimension of individual differences relating to individual's 'motivation with respect to information processing and judgement' (Webster & Kruglanski, 1994, p. 1049). The term 'need' does not refer to the deficit, but to a motivated tendency (urgency tendency and permanence tendency) (Kruglanski & Webster, 1996).

People that are characterised by high need for cognitive closure manifest a preference for structure, quick decision-making, predictability, rigidity of thought and low tolerance for ambiguity. Webster and Kruglanski (1994) propose that need for cognitive closure is a one-dimensional instrument with five facets: preference for order, preference for predictability, discomfort with ambiguity, closed-mindedness, decisiveness. Therefore, they conceptualise the NfC as a single latent variable, manifesting itself in various ways. Need for closure correlates positively with authoritarianism (characterized, by rigidity, conventionalism, and intolerance of those who violate conventional norms), intolerance of ambiguity, dogmatism (i.e. closed belief systems), impulsivity (i.e. tendency to be careless and impulsive, as opposed to cautious and reflective), and need for structure (i.e. desire to structure the environment); and negatively with cognitive com-

plexity (i.e. capacity to interpret social behaviours in a multidimensional way), fear of invalidity (i.e. fear of making judgmental errors) and need for cognition (i.e. the extent to which one 'enjoys thinking') (Webster & Kruglanski, 1994).

Tolerance for ambiguity have been found to influence entrepreneurial attitudes, intentions and behaviours, both in student and non-student samples. It was positively related to entrepreneurial intentions of Spanish (Espíritu-Olmos & Sastre-Castillo, 2015) and Turkish (Gürol & Atsan, 2006; Koh, 1996) students. Gupta and Govindarajan (1984) in their study of determinants of strategic business units (SBUs), found that tolerance for ambiguity contributed to effectiveness of strategy implementation in SBUs aimed at 'building' (i.e. increasing market share) and hampered the effectiveness of strategy implementation in SBUs aimed at 'harvesting' (i.e. maximizing short term profit and cash flow). Teoh and Foo (1997) in their study of entrepreneurs in small and medium-sized businesses in Singapore, found that tolerance for ambiguity moderated the relationship between role conflict and perceived performance, that is entrepreneurs with more tolerance for ambiguity were better positioned to 'neutralise' negative effect of role conflicts upon performance outcomes.

While the aforementioned studies focus on one facet of NfC, that is tolerance for ambiguity, literature on the role of NfC in entrepreneurship, using the construct offered by Kruglanski (1990) is limited to very few studies. Schenkel, Matthews and Ford, (2009), using the Panel Study of Entrepreneurship Dynamics (PSED), found that NfC (measured with single-item proxies) was positively related with nascent entrepreneurial activity.

The exploratory study of Schenkel *et al.* (2009) enforces the idea that incorporating "cognitive factors rooted in the lay epistemic motivations of individuals" (p. 67) offer an opportunity to enhance the underlying nature of entrepreneurial behaviour. In discussing the limitations of their exploratory study, Schenkel *et al.* (2009) call for further research that would use the complete NfC scale grounded in psychology literature, employing a number of control variables.

The NfC construct is grounded in the social learning theory, assuming that individuals are motivated to avoid unpleasant stimulation and seek positive stimulation (Rotter, 1966). NfC involves two tendencies: urgency and permanence. Therefore, we follow Shenkel *et al.* (2009, p. 59) in arguing that NfC may pose a barrier to undertaking entrepreneurial activity, since "such situations will frustrate the desire to have order and predictability, prevent decisiveness, and produce feelings of discomfort resulting from ambiguity."

Entrepreneurship is inherently concerned with dealing with extreme uncertainty (Knight, 1921) and bringing about 'creative destruction' (Schumpeter, 1942/1976). Therefore, based on career choice theory (Holland, 1997) and person-environment fit theory (Kristof, 1996) we may expect that people who score high on the need for cognitive closure are less attracted to entrepreneurship and more inclined to pursue a more 'conventional' and predictable career path. We therefore formulate the following hypothesis:

H: Need for cognitive closure is negatively related to entrepreneurial intentions.

MATERIAL AND METHODS

Data Collection and Sample

The questionnaire was addressed to 140 full-time MA students of the Faculty of Management, University of Warsaw, participating in the course of Strategic Management. The questionnaire (pen-and-paper, group study) was administered in December, 2014. Respondents who run their own businesses at the moment of the study ($n = 8$), as well as those which were incomplete ($n = 3$) were excluded from the analysis. The final sample comprised of 129 students (108 female and 21 male students), with average age of 22.6 (SD = 1.45). While the purposeful sampling has limitations, it yielded a sample that was to a large extent homogeneous in terms of age, current education profile, nationality, and place of residence.

Measures

The dependent variable, i.e. Entrepreneurial Intention was measured with a 4-item scale (EI) elaborated by Łaguna (2006a). Respondents were asked to assess, on a 5-point Likert scale, the degree to which they agree with the following statements: (1) 'I intend to start my own business', (2) 'I will use the opportunity to start own business', (3) 'I will try to start my own business', (4) 'I decided to start my own business'. The final result is computed as a mean of individual item scores. High scores in EI scale correspond to high entrepreneurial intention.

Need for cognitive closure was measured with a shortened Need for Closure Scale, elaborated by Kruglanski, Webster and Klem (1993), adapted by Jaworski (1998). This scale comprises of 20 items (e.g. 'I think that having clear rules and order at work is essential for success', 'I don't like situations that are uncertain', 'I enjoy having a clear and structured mode of life'), assessed on a 6-point Likert scale. The final result is computed as a sum of individual item scores. High scores in this scale correspond to high need of cognitive closure.

Following the findings of previous studies indicating the role of gender (Wilson *et al.*, 2007), education and family background (Wach, 2015) in forming entrepreneurial intentions, we control for gender (dichotomous variable), previous education (dichotomous variable: business *versus* non-business) and entrepreneurial role models (dichotomous variable assessed with a question 'My mother / my father owns or used to run her / his own business' and entrepreneurial self-efficacy).

Moreover, we control for two of the variables (namely: locus of control and entrepreneurial self-efficacy), originating from the psychological literature (Rotter, 1966; Bandura, 1997) and extensively used in studies investigating the link between personality and entrepreneurship.

The importance of locus of control to entrepreneurship stems from the fact that the belief in controlling one's future increases people's motivation to actively shape one's environment. Rauch and Frese (2007) conducted a meta-analysis of 20 studies and found a small, yet significant difference between owners and non-owners locus of control.

Locus of control (ELOC) has been measured with Internal-External Locus of Control scale elaborated by Rotter (1966). This is a 29-item scale, with 23 diagnostic items with dichotomous structure. Respondents choose between pairs of statements relating to

everyday situations (e.g. 'When I make plans, I am almost certain that I can make them work.' versus: 'It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow'; 'Many of the unhappy things in people's lives are partly due to bad luck.', versus: 'People's misfortunes result from the mistakes they make. '; 'The idea that teachers are unfair to students is nonsense.', versus: 'Most students don't realize the extent to which their grades are influenced by accidental happenings.'). High scores in I-E Scale correspond to external locus of control.

Entrepreneurial self-efficacy positively correlates with the propensity of becoming entrepreneur (Chen, Greene & Crick, 1998) and achieving high (profits) in entrepreneurial activities (Markman, Balkin & Baron, 2002). It also proved to be the key determinant of entrepreneurial intentions of Polish students (Wąsowska, 2016).

Entrepreneurial self-efficacy (ESE) was measured with a 21-item Entrepreneurial Self-Efficacy Scale, elaborated by Łąguna (2006a), based on Gatewood, Shaver & Gartner, (1995). This scale is designed to 'measure perceived self-efficacy in carrying out tasks aimed at a new venture creation' (Łąguna, 2006a, p. 123). It has been originally validated on a group of participants of courses in entrepreneurship (aged 18-55) (Łąguna, 2006a) and subsequently used in studies on samples of unemployed (Łąguna, 2006b). Considering the fact that similar scales of entrepreneurial self-efficacy (Chen *et al.*, 1998) have been used in student samples (Kaczmarek & Kaczmarek-Kurczak, 2014), we believe that it is appropriate use this scale in our study. The scale has a 3-factor structure, corresponding to self-efficacy in three distinct narrow domains of entrepreneurial activity, i.e. (1) gathering marketing information, (2) managing financial and legal matters, and (3) setting up business operations. Respondents assess their efficacy beliefs on a 100-point scale, from 0 ('cannot do') to 100 ('highly certain can do'). The final result is computed as a mean of individual item scores. High scores in this scale correspond to high entrepreneurial self-efficacy. Correlation matrix and descriptive statistics are presented in table 1.

Table 1. Correlations and descriptive statistics

	EI	ESE	NfC	ELOC
<i>r-Pearson correlations</i>				
EI	1	0.326**	-0.234**	-0.310
ESE	0.326**	1	-0.133	-0.171
NfC	-0.234**	-0.133	1	0.21*
ELOC	-	-	-	1
<i>Descriptive statistics</i>				
Mean	12.868	65.108	87.171	13.783
SD	3.904	10.602	12.010	3.915
Minimum	4.000	36.190	41.000	2.000
Maximum	20.000	87.143	115.000	22.000

Significant codes: p<0.001; **p<0.01; *p<0.05

Source: own calculations in SPSS.

RESULTS AND DISCUSSION

A hierarchical regression analysis was performed to test the research hypothesis. We first run the baseline model (Model 1, Table 2), comprised of control variables only (respondent's gender, education profile, entrepreneurial role models, self-efficacy and

locus of control). In the full model (Model 2, Table 2) we add the main tested variable, i.e. need for cognitive closure. We also examined potential multi-collinearity problems by calculating the value inflation factors (VIF's). Moreover, we tested the autocorrelation of residuals with (Durbin-Watson test) and the normality of residuals (Kolmogorov-Smirnov test). We analysed the plot of residuals versus predicted values to check the assumptions of homoscedasticity and linearity.

Table 2. Linear regression analysis

	Model 1 (baseline model)			Model 2 (full model)				
	Beta	t	Sig.	Beta	T	Sig.	Tolerance	VIF
gender	-0.004	-0.041	0.967	0.041	0.472	0.638	0.909	1.100
ESE	0.327	3.747	0.000	0.306	3.569	0.001	0.936	1.069
Role model	-0.048	-0.555	0.580	-0.048	-0.561	0.576	0.945	1.058
Education	-0.083	-0.974	0.332	-0.104	-1.234	0.219	0.972	1.029
ELOC	0.034	0.390	0.697	0.075	0.875	0.383	0.928	1.077
NfC	–	–	–	-0.223	-2.552	0.012	0.899	1.112
Model	–	–	–	–	–	–	–	–
R2	0.117	–	–	0.161	–	–	–	–
Adj R2	0.081	–	–	0.120	–	–	–	–
F	3.247	–	–	3.913	–	–	–	–
Sig. of F	0.009	–	–	0.001	–	–	–	–
Change in R2	–	–	–	0.045	–	–	–	–
F-Change	–	–	–	6.514	–	–	–	–
Sig. of F-Change	–	–	–	0.012	–	–	–	–

Source: own calculations in SPSS.

The baseline model (Model 1, Table 2) is statistically significant ($F = 3.247$, $p < 0.01$) and explains 8,1% of the variance of entrepreneurial intention. The full model (Model 2, Table 2) is statistically significant ($F = 3.913$, $p < 0.001$) and explains 12% of the variance of entrepreneurial intention. In comparison with the baseline model (Model 1), its explanatory power is significantly higher (F-Change is statistically significant). As evidenced by the results, need for cognitive closure has a negative and significant influence on EI, and therefore, our research hypothesis is supported.

Our findings support the notion that individual cognition shapes entrepreneurial intention. Individuals that score higher on the need for cognitive closure declare lower entrepreneurial intentions. This result is in line with the career choice theory (Holland, 1997) and person-environment fit theory (Kristof, 1996), both suggesting that people are attracted to jobs that best suit their personality and needs. In this, our findings echo studies investigating the relationships between the Big Five personality traits and entrepreneurial intention (Zhao, Seibert & Lumpkin, 2010). However, in line with the recommendations of Rauch and Frese (2007) and following Schenkel *et al.* (2009), instead of studying broad, general personality traits, we focus on a cognitive-motivational construct of NfC. Using a psychometrically validated measure of NfC (Kruglanski, Webster & Klem, 1993; Jaworski, 1998) and number of control variables, we respond to calls formulated in the pioneering study by Schenkel *et al.* (2009). However, contrary to Schenkel *et al.* (2009) who find a positive correlation between NfC and nascent entrepreneurial activity, we observe a negative relationship between NfC and entrepreneurial intentions. Our

results support the notion that, since both the urgency and permanence tendencies implied by NfC are not satisfied by entrepreneurial activity, people scoring high on NfC will be less inclined to pursue 'entrepreneurial' career path.

CONCLUSIONS

The objective of this paper was to shed more light on psychological antecedents of entrepreneurship, by investigating relationship between NfC and EI. We find that NfC negatively influences EI, thus supporting our research hypothesis. To the best of our knowledge, this is one of the first attempt to explore the role of the need for cognitive closure in forming entrepreneurial intentions.

Our findings are tempered by a number of limitations. First, as we use a student sample, the representativeness of our results is limited. Second, we study entrepreneurial intentions and not the actual behaviour. Our findings should be now tested on larger, representative samples. Third, future studies might follow alternative conceptualisations and measurements of NfC. For example, Webster and Kruglanski (1994) originally treat NfC as a single latent variable. However, in line with more recent studies decisiveness may be treated as a separate factor, and studied independently from NfC. Fourth, it would be interesting to investigate the relationships between the need of cognitive closure and the actual behaviour (i.e. starting a business) and its outcomes (i.e. performance results). Fifth, we acknowledge that the predictive power of NfC as an antecedent of EI, as well as the predictive power of the overall regression model presented in the current study is low. This is a common limitation of studies on EI (Krueger, Reilly & Carsrud, 2000), especially those focused on a specific topic (e.g. entrepreneurial cognition) and testing a limited number of variables (Łaguna, 2006c).

In order to increase the predictive power of the model, a number of both individual-level and contextual variables should be included. In line with the person/context interaction approach (Shaver & Scott, 1991), there have recently been numerous calls for research combining both contextual and personal characteristics as antecedents of EI (Liñán & Fayolle, 2015). In our study we use a relatively homogeneous sample of Polish students, while controlling for context-specific variables such as previous education and family background. Further research is needed to better understand the interaction between personal-level (i.e. demographics, personality traits) and institutional-level (e.g. institutional support) variables.

Research efforts examining the antecedents of entrepreneurial intentions, including the present study, are informative to business practitioners. Following Krueger *et al.* (2000, p. 429), we believe that "The entrepreneurs themselves should gain considerable value from a better understanding of their own motives. The lens provided by intentions affords them the opportunity to understand why they made certain choices in their vision of the new venture".

Further research on the role of cognitive closure may bring important practical insights into entrepreneurial education and public policy. More specifically, in designing entrepreneurial education programs it is necessary to know, to which extent entrepreneurial behaviour and its outcomes can be shaped by external institutional factors. Our current research suggests that entrepreneurial intentions of Polish business students are to a large extent influenced by relatively stable, dispositional, personal-level variables,

thus indicating potential barriers to fostering entrepreneurship through educational or institutional measures. However, further studies, incorporating both individual level and institutional level variables are needed in order to assess the impact of such measures on entrepreneurial intentions and behaviours.

REFERENCES

- Ajzen, I. (1991). Theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman and Co.
- Baron, R. (2004). The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions. *Journal of Business Venturing*, 19, 221-239.
- Busenitz, L.W., & Barney, J.B. (1997). Differences between entrepreneurs and managers in large organizations: biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12(1), 9-30.
- Carr, J.C., & Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A Theory of Planned Behavior approach. *Journal of Business Research*, 60(10), 1090-1098.
- Chen, C.C., Greene, P.G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13(4), 295-316.
- Costa, P.T. Jr., & McCrae, R.R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) professional manual. Odessa, FL: PAR.
- Engle, R.L., Dimitriadi, N., Gavidia, J.V., Schlaegel, C., Delanoe, S., Alvarado, I., He, X., Buame, S., & Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behaviour and Research*, 16(1), 36-58.
- Espíritu-Olmos, R., & Sastre-Castillo, M.A. (2015). Personality traits versus work values: Comparing psychological theories on entrepreneurial intention. *Journal of Business Research*, 68(7), 1595-1598.
- Fayolle, A., & Liñán, F. (2014). The future of research on entrepreneurial intentions. *Journal of Business Research*, 67, 663-666.
- Fishbein, M., & Ajzen, I. (2010). *Predicting and Changing Behavior: The Reasoned Action Approach*. New York, NY: Taylor and Francis Group.
- Gartner, W.B. (1988). "Who is an entrepreneur?" is the wrong question. *Entrepreneurship Theory and Practice*, 12(2), 47-68.
- Gatewood, E., Shaver, K., & Gartner, W. (1995). A longitudinal study of cognitive factors influencing start-up behaviors and success at venture creation. *Journal of Business Venturing*, 10, 371-391.
- Gupta, A.K., & Govindarajan, V. (1984). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academy of Management Journal*, 27(1), 25-41.
- Gürol, Y., & Atsan, N. (2006). Entrepreneurial characteristics amongst university students: Some insights for entrepreneurship education and training in Turkey. *Education + Training*, 48(1), 25-38.
- Jaworski, M. (1998). Polska adaptacja Skali Potrzeby Domknięcia Poznawczego. *Przegląd Psychologiczny*, 41(1-2), 151-163.

- Kaczmarek, M., & Kaczmarek-Kurczak, P. (2012). Przegląd metaanaliz dotyczących związku cech osobowości i przedsiębiorczości. W stronę modelu badań. *Management and Business Administration. Central Europe*, 1(108), 49-63.
- Kaczmarek, M., & Kaczmarek-Kurczak, P. (2014). The self-efficacy (generalized as well as context specific), the big five traits and the effectiveness of the entrepreneurship education). *Psychological Studies*, 52(4), 39-46.
- Kautonen, T., van Gelderen, M., & Fink, M. (2015). Robustness of the Theory of Planned Behavior in Predicting Entrepreneurial Intentions and Actions. *Entrepreneurship Theory and Practice*, 39(3), 655-674.
- Koh, H.C. (1996). Testing hypotheses of entrepreneurial characteristics: A study of Hong Kong MBA students. *Journal of Managerial Psychology*, 11(3), 12-25.
- Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into selfemployment. *Journal of Business Venturing*, 21(6), 866-885.
- Kristof, A.L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49(1), 1-49.
- Krueger, N.F., Reilly, M., & Carsrud, A.L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, 411-432.
- Kruglanski, A.W. (1990). Lay epistemic theory in social-cognitive psychology. *Psychological Inquiry*, 1, 181-197.
- Kruglanski, A.W., Webster, D.M., & Klem, A. (1993). Motivated resistance and openness to persuasion in the presence or absence of prior information. *Journal of Personality and Social Psychology*, 65, 861-877.
- Kruglanski, A.W., & D.M. Webster. (1996). Motivated closing of the mind: 'Seizing' and 'freezing'. *Psychological Review*, 103, 263-283.
- Łaguna, M. (2006a). Skala Skuteczności Przedsiębiorczej. *Roczniki Psychologiczne*, 9, 107-128.
- Łaguna, M. (2006b). Ogólna samoocena czy przekonanie o skuteczności? Uwarunkowania gotowości do działań przedsiębiorczych u osób bezrobotnych. *Przegląd Psychologiczny*, 3, 259-274.
- Łaguna, M. (2006c). Nadzieja i optymizm a intencja założenia własnej firmy. *Przegląd Psychologiczny*, 49(4), 419-443.
- Liñán, F., & Santos, F.J. (2007). Does social capital affect entrepreneurial intentions? *International Advances in Economic Research*, 13(4), 443-453.
- Liñán, F., & Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions : citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 11(4), 907-833.
- Litzinger, W.D. (1965).The motel entrepreneur and the motel manager. *Academy of Management Journal*, 8, 268-281.
- Markman, G., Balkin, D., & Baron, R. (2002). Inventors and new venture formation: the effects of general self-efficacy and regretful thinking. *Entrepreneurship Theory and Practice*, 4, 149-165.
- Pittaway, L., & Cope, J. (2007). Entrepreneurship education – A systematic review of the evidence. *International Small Business Journal*, 25(5), 479-510.
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, 16(4), 353-385.
- Reynolds, P., Hay, M., & Camp, S.M. (1999). *Global Entrepreneurship Monitor. Executive Report*. Kansas City, MO: Ewing Marion Kaufmann Foundation.

- Rotter, J.B. (1966). Generalized Expectancies for Internal versus External Control of Reinforcement. *Psychological Monographs*, 80(1), 1-28.
- Schenkel, M.T., Matthews, Ch.T., & Ford, M.F. (2009). Making rational use of 'irrationality'? Exploring the role of need for cognitive closure in nascent entrepreneurial activity. *Entrepreneurship and Regional Development: An International Journal*, 21(1), 51-76.
- Schlaegel, Ch., & Koenig, M. (2014). Determinants of Entrepreneurial Intent: a meta-analytic test and integration of competing models. *Entrepreneurship Theory and Practice*, 38(2), 291-332.
- Schumpeter, J. (1911/1960). *Teoria rozwoju gospodarczego*. Warszawa: PWE.
- Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur. *International Journal of Entrepreneurial Behaviour and Research*, 11(1), 42-57.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.
- Shapiro, A., & Sokol, L. (1982). Social dimensions of entrepreneurship. In C.A. Kent, D.L. Sexton & K.H. Vesper (Eds), *Encyclopedia of entrepreneurship* (pp. 72-90). Englewood Cliffs (NJ): Prentice Hall.
- Shaver, K.G., & Scott, L.R. (1991). Person, process, choice: The psychology of new venture creation. *Entrepreneurship: Theory and Practice*, 16(2), 23-45.
- Teoh, H.Y., & Foo, S.L. (1997). Moderating effects of tolerance for ambiguity and risk-taking propensity on the role conflict-perceived performance relationship: Evidence from Singaporean entrepreneurs. *Journal of Business Venturing*, 12(1), 67-81.
- Wach, K. (2015). Środowisko biznesu rodzinnego jako stymulanta intencji przedsiębiorczych młodzieży akademickiej. *Przedsiębiorczość i Zarządzanie*, 16(7), 25-40.
- Wainer, H.A., & Rubin, I.M. (1969). Motivation of R&D entrepreneurs: determinants of company success. *Journal of Applied Psychology*, 53(3), 178-184.
- Wąsowska, A. (2016). Społeczno-poznawcze uwarunkowania intencji przedsiębiorczej. *Problemy Zarządzania*, 13(4), 101-114.
- Webster, D.M., & Kruglanski, A.W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67(6), 1049-1062.
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship: Theory and Practice*, 31(3), 387-406.
- Zhao, H., & Seibert, S.E. (2006). The Big Five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 91(2), 259-271.
- Zhao, H., Seibert, S.E., & Lumpkin, G.T. (2010). The Relationship of Personality to Entrepreneurial Intentions and Performance: A Meta-Analytic Review. *Journal of Management*, 36(2), 381-404.

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University Business Incubators: An Institutional Demand Side Perspective on Value Adding Features

Sven Dahms, Suthikorn Kingkaew

ABSTRACT

Objective: The purpose of this article is to investigate differing demands for university business incubator's value adding features. It introduces an institution based perspective to guide the argumentation. A framework has been developed, which is grounded in recent entrepreneurship theory and studies related to business incubator development.

Research Design & Methods: An exploratory empirical study has been conducted to test the framework using participants from the United Arab Emirates and Thailand. The survey questionnaire was developed and tested before applying to the empirical study.

Findings: The findings indicate variation in demands for incubator features in particular related to infrastructure and networking services. In line with the expectations, no differences have been found for the business support services. We also found that a more general strategy and goals seem to be preferred over a more narrow industry focus.

Implications & Recommendations: The framework and our empirical findings suggest that university business incubators should take into consideration institutional differences between the countries in order to increase acceptance of the incubator concept, especially in developing countries.

Contribution & Value Added: The study addresses a research gap, identifying cross-country differences in the demand of potential entrepreneurs for value adding features provided in University Business Incubators (UBI).

Article type: research paper

Keywords: University Business Incubator; institution; developing countries; demand side; value adding features

JEL codes: M0, O31

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INTRODUCTION

The concept of University Business Incubators (UBI) keeps attracting attention from various scholars in wider entrepreneurship literature (Bruneel, Ratinho, Clarysse & Groen, 2012; Rothaermel, Agung & Jiang, 2007). Popular key areas are technology diffusion processes, the survival rates of business ventures or various typologies of incubators (Barbero, Casillas, Ramos & Guitart, 2012; Grimaldi & Grandi, 2005; Todorovic & Suntornpitug, 2008).

The importance of incubators for the regional and national economy has been well established over the years in studies that looked for example at Europe (EC, 2002), Taiwan (Tsai, Hsieh, Fang & Lin, 2009) or US (Mian, 1996). However, the success factors for university and other business incubator models are somewhat more controversial (Barbero *et al.*, 2012; Lee & Osteryoung, 2004). For example, it has been suggested that variation in success could be caused by the differing reasons for establishing incubators (Chan & Lau, 2005). University incubators, for instance, have been mostly assessed from a technology diffusion and transfer perspective, where empirical evidence is largely based on incubators located in North America, Europe and to some extent East Asia (Rothaermel *et al.*, 2007). Others investigated the evolution of established incubators over time, arguing that broader economic changes on the regional and national plane alter the requirements for successful incubator models (Bruneel *et al.*, 2012). Another stream of research argues for particular practises, such as tenant screening, which might help to determine success of incubator models in various contexts (Aerts, Matthyssens & Vandenbempt, 2007). Others indicate that incubators which have been established in recent years around the world seem to follow the North American blue print, with very little consideration towards local needs (Akcomak, 2009; Chan & Lau, 2005). However, there seems to be very little research on the services or value added features provided by incubators that refer to local requirements. In particular, value adding features that an entrepreneur might find important within an incubator environment is a neglected issue. The demand side of incubators needs attention (Bruneel *et al.*, 2012). That is, the link between university business incubator provisions and the demand from potential entrepreneurs in different countries is under researched.

The current article addresses this gap. The main objective is to identify differences in the demand for value adding features provided in University Business Incubators (UBI) to potential entrepreneurs in different countries. Value adding features mean the provision of tangible (e.g. office space, conference rooms) and intangible services (e.g. networking, business support services) in and by the incubator (Mian, 1996). This research follows Bruneel's *et al.* (2012) call that incubators must meet tenants' demands in order to become more successful and to fulfil their full potential. The reason for our expectation of differing demands is the growing evidence provided in the adjacent international entrepreneurship literature which suggests that differing institutional settings have a considerable impact on the behaviour of entrepreneurs (Bowen & De Clercq, 2008; De Clercq, Lim & Oh, 2011; Estrin, Korosteleva & Mickiewicz, 2013). Differing institutional settings have been rarely accounted for in demand side literature concerning business incubators. Some notable exceptions in the literature that took local demands by entrepreneurs in incubator context into deliberation are for example a conceptual paper by Zablocki

(2007). The author suggests that the local environment needs to be taken into consideration and suggests a market analysis to be done in order to understand tenants demands before the incubator is established, but offers little beyond that. Lee and Osteryoung (2004) compare managers' perceptions of critical success factors of UBI's in Korea and US, but only found differences for goals and operational strategies between the participants. Vanderstraeten and Matthyssens (2012) investigate internal and external alignment of incubator strategies, but focus on a European context only. Chan and Lau (2005) provide an overview of tenant's use of incubator services, yet focus on case studies in Hong Kong science parks only, whereas an extensive study conducted by Mian (1996) focuses exclusively on the US.

This study sets out to shed some light on the demands of value adding features provided by UBI's for would be entrepreneurs in different countries. In order to guide the development of our hypothesis, this study will rely on insights from the institutional perspective on entrepreneurship (Baumol, 1990; North, 1990). It thereby attempts to overcome some of the limitations of previous studies in suggesting a coherent framework for the adaptation of the UBI concept to different institutional settings. This study also provides some indicative empirical evidence based on a survey of potential entrepreneurs in the United Arab Emirates (UAE) and Thailand.

This article is structured as follows: the next section provides relevant literature review and general hypothesis are developed. The following section outlines the research design. Next, the analysis and discussion of the results are presented. The last section sums up the conclusions of the article.

LITERATURE REVIEW

University Business Incubators and Institutions

Adjacent entrepreneurship literature has emphasised the institutional perspective as one fruitful way to explain various entrepreneurship related phenomena (Bowen & De Clercq, 2008; De Clercq *et al.*, 2011; Estrin *et al.*, 2013). Baumol (1990) was among the first to point out that the institutional setting in a country determines the entrepreneurial activity and the kind of endeavours undertaken by entrepreneurs. Institutional settings are, for the purpose of this study, defined as consisting of formal (e.g. rules and legislation) and informal (e.g. habits, norms and values) which constrain human behaviour and therefore provide the rules of the game (North, 1990). The institutional setting in a country determines the cost of transaction for social exchanges and hence influences the resource allocation that is paramount for entrepreneurial efforts to develop and sustain (Baumol, 1990; Bowen & De Clercq, 2008). North (1990) argued that formal and informal institutions are path dependent and change only very slowly through an extended reform process or abruptly through revolution for example. Path dependence can lead to an institutional misfit. That is organisational or institutional forms that work well in one institutional setting, might not work in another institutional setting because it is not aligned to the formal and informal institutional setting in another country. For example, laws for intellectual property rights protection are only useful if enforced and accepted by the social values in a society. We believe that business incubators are one of such organisational forms that might provide valuable economic gains in one setting, but not

in others. In particular, the institutional constraints on entrepreneurs will determine their set of opportunities available to them (North, 1990). This in turn, is for this study, expected to have an impact on the perceived importance for the demand of value adding features provided by business incubators.

A UBI is one type of business incubator. Various typologies have been proposed in the literature (EC, 2002; Rothaermel *et al.*, 2007). Commonly used categories are public incubators, private incubators, and university incubators (Barbero *et al.*, 2012). The present research focuses on the differing demands for the establishment of UBI's. It is thereby following a general definition of UBI's as suggested in Barbero *et al.* (2012) and Grimaldi and Grandi (2005). Accordingly a UBI is defined as a university based institution that provides support for young business start-ups through tangible and intangible services in order to support growth and survival of its tenants. Literature indicates that UBI's rely on a mixture of funding from public and private sources. It is thereby emphasised that UBI's do not necessarily have to have a technology focus (Mian, 1996). This is important, because it allows non-technology focussed higher education institutions such as stand-alone business schools, to become active in the incubator market with a particular focus on non-tangible services in addition to technology transfer activities.

UBI's have been chosen for three main reasons. First, it is argued that especially in countries in which incubators are still in their infancy, university based incubators can help start-up businesses to add legitimacy i.e. lower the cost of transaction through trust, based on the location of the tenants under the university tutelage through its location and reputation (Mian, 1996; Chan & Lau, 2005). This can lower market entry costs for start-ups that generally lack reputation and hence increase the likelihood for survival (Mian, 1996). Second, a reoccurring issue in the entrepreneurship literature across countries is the lack of business and management knowledge in young business start-ups (GEM, 2012). It is argued in this paper that universities, in particular while collaborating with their business schools, are well suited due to their *raison d'être* in supporting young businesses in that aspect. Thirdly, universities have access to a constantly renewing talent pool, which increases the likelihood of accessing and recruiting new tenants (Barbero *et al.*, 2012; Todorovic & Suntornpithug, 2008). This might be of particular relevance in developing countries in which the concept of business incubators is still largely unknown (Akcomak, 2009).

Current Context

Most research on business incubators has been focussed on North America, Europe and developed countries in East Asia (Akcomak, 2009; Rothaermel *et al.*, 2007; Vanderstraeten & Matthyssens, 2012). Relatively little has been done in the context of emerging regions such as the Middle East or Southeast Asia. This research attempts to narrow this gap by providing indicative empirical evidence collected from potential entrepreneurs in two universities located in the UAE and Thailand.

The UAE is an oil rich nation located on the Arabian Peninsula. Over the last decades, the central and local governments put in increased efforts to shift the economy away from its dependence on crude oil and gas. Various initiatives have been taken to diversify the economy. A particular emphasis has been placed on the development of small and medium sized companies in the country. As part of this policy shift a number of funds have been set up to ease the access to capital for entrepreneurs, various supporting

organisations have been created such as SME-forums. Among those, a number of public and private business incubators have been set up around the country. Although the concept is still rather alien to the population, increased efforts have been made to provide help and support for entrepreneurs. The country also showed a relatively high perceived competency concerning entrepreneurial activities, but a low level of actual business start-ups (GEM, 2011).

Thailand is a middle income country located in Southeast Asia. The concept of business incubators is still relatively unknown in the country. Different incubator projects have been set up but failed due to various factors such as lack of understanding of the concept, poor funding, or lack of local expertise (Friedrich, Harley & Langbein, 2012). However, Thailand has a comparatively high rate of entrepreneurial activity among its population compared to other countries in the region (GEM Thailand, 2012). This indicates that the concept of business incubators might be rather useful, if carried out correctly, in both cases.

A study by Scaramuzzi (2002) indicated that there are discrepancies among incubators from different developing countries however the certain characters are required as part of incubation process including facilities, professional services, networking opportunities, access to capital and partnership mechanism.

Building upon a recent study by Bruneel *et al.* (2012), who suggested a dynamic typology for the incubator industry, this study proposes testable hypothesis along four value adding features of business incubators: goals and strategy, infrastructure, business support services, and networks.

Goal and Strategy of Incubators

Previous research has indicated that the goals and strategy of incubators are important factors to attract business start-ups (Bruneel *et al.*, 2012). Lalkaka (2003) observed that there are several distinctive characteristics of successful business incubator from different developing countries. Lee and Osteryoung (2004), for example, showed in one of the very few existing comparative studies that goals and strategy were less important for Korean directors of incubators than for US directors. They further argued that this might be caused by the relatively recent introduction of incubators across Korea. Vanderstraeten and Matthyssens (2012) found in their study that the scope of incubators will depend on their choice of providing generalised or specialised services to their tenants. Their findings indicate a dichotomy between interviewed tenants in Belgium. While specialised companies with relatively few market competitors preferred a more general incubator strategy, business start-ups facing broader scope of competition preferred specialised incubators. Explanations for their findings beyond industry have not been provided by the authors. This raises issues concerning generalisability to differing institutional contexts in other countries. Different countries might well nurture differing requirements based on different institutional settings in which UBI's are located. For example, it could be argued that for countries with a long tradition of incubators that a more specialised focus could be preferred in order to take advantage of scale economies. Scale economies derive from further specialised services and a certain incubator image that comes with being located as a tenant in a specialised incubator (Bruneel *et al.*, 2012). Another study by Guerrero, Urbano and Salamzadeh (2015) found that univer-

sity business incubators in Iran have been transformed under the influence of changing institutional setting in order to better serve local demand.

On the other hand, in countries that are relatively new to the business incubator concept, a more general strategy might be preferred in order to exchange ideas or identify reoccurring issues which affect a number of tenants across a range of industries (Akcomak, 2009). In developing countries, the institutional setting often provides limited support for entrepreneurs (Estrin *et al.*, 2013). Most notably, the protection of intellectual property rights has been emphasised on the formal institutional level (Bowen & De Clercq, 2008). On the informal institutional level, prevailing uncertainty avoidance has been shown to inhibit entrepreneurial risk taking. In such cases, potential entrepreneurs might prefer a more general incubator strategy in order to learn from a wide range of businesses and role models (De Clercq *et al.*, 2011). Hence, the following hypothesis will be tested.

H1: The importance of general or specialised incubator goals and strategy for potential entrepreneurs varies across countries.

Infrastructure

As indicated by Bruneel *et al.* (2012), one of the key features of first generation incubators is the provision of tangible services, i.e. infrastructure. Subsidised office space and other tangible resources such as receptionist services, parking space, or meeting rooms, free incubator tenants from related search and management costs. Shared infrastructure has also been suggested to lead to an increased sharing of information between incubator tenants (Chan & Lau, 2005). However; the use of shared incubator communication facilities has found only mixed evidence in the literature, dependent on context specific informal institutional variables such as trust or attitude (Chan & Lau, 2005; Schwartz & Hornych, 2008; Vanderstraeten & Matthyssens, 2012). This hints towards differing needs among potential entrepreneurs depending on the formal and informal institutional setting in which they are located.

However, basic infrastructure is provided by the vast majority of physical (as compared to virtual) incubators and has been found to be one of the most important value added features by incubators (Chan & Lau, 2005). As indicated above this provision reduces the overhead costs such as rents, copy facilities and other office utilities for new businesses. This can be assumed to hold true for new businesses located in expensive metropolitan areas, as well as in more sparsely populated areas due to a potential lack of supply of appropriate facilities. Hence, the following hypothesis will test for differing demands for tangible services.

H2: Infrastructure demand by entrepreneurs will not vary across countries.

Business Support Services

Business support services include primarily professional services in order to help businesses in their start-up phase such as accounting, in-house bookkeeping, finance, management or marketing (Bruneel *et al.*, 2012; Vanderstraeten & Matthyssens, 2012). The main reason for providing those services is a general lack of management expertise in young business start-ups (GEM, 2012). Business support services can take the form of subsidised courses offered, or tailored mentoring and coaching services (Lee & Os-

teryoung, 2004). More specialised services can be provided on a general level by incubators such as help in recruiting new staff. It has been argued for example in Vanderstraeten and Matthyssens (2012) that many start-ups face the problem of recruiting new staff for their companies. Incubators can provide support in selecting new staff and hence reduce adverse selection risk for new firms. Additionally, in the study above, the authors also found that tenant firms often lack knowledge concerning the development of crucial marketing campaigns or how to engage with the public in general. Business support services on marketing can reduce the costs for developing targeted marketing campaigns and helping to provide guidance concerning public relations of the firms.

Business support services can also help to close the gap between the required knowledge to run a business and the training provided by the educational system prevailing in the country (Bowen & De Clercq, 2008). We believe that given the lack of human capital in business start-ups, especially in less developed countries (GEM, 2012; Estrin *et al.*, 2013) that there will be no variation in demand for business support services between countries. Hence, the following hypothesis will be tested:

H3: Business support services demand by entrepreneurs will not vary across countries.

Networking Services

Business start-ups often suffer from a lack of legitimacy in the market place (Chan & Lau, 2005; Mian, 1996). It has been suggested in the literature that business incubators can provide access to market networks that would otherwise be out of reach for such companies (Scilitoe & Chakrabarti, 2010). Networks help start-ups to gain new business contacts such as customers and suppliers, as well as access to new financial sources. For example, locating a start-up in an incubator can lead to increased credibility for the firm, which in turn reduces search costs for the firm and hence reduces the overall costs of transaction (Bruneel *et al.*, 2012). This could be of particular relevance when firms are located in institutional settings in which business contacts still require the personal introduction in order to establish a certain amount of trust between the business parties (North, 1990). Personal business contacts are also important in countries in which law enforcement is seen as slow and costly (Bowen & De Clercq, 2008; De Clercq *et al.*, 2011; Estrin *et al.*, 2013; La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1998). Vanderstraeten and Matthyssens (2012) found evidence that an extensive business network is a differentiating feature among the incubators in their study, opening the possibility for incubators to differentiate themselves from competition in the incubator market. Contrary to that, Chan and Lau (2005) found no indication for the use of networks provided by the science park for business start-ups in Hong Kong. The authors argue that the western-model of clustering might not be as successful in an eastern context.

For young start-ups, it is seen as difficult to establish a business network regardless of their location (GEM, 2012). However, the extent to which external network support is being accepted by tenants is expected to lead to variations between countries (Estrin *et al.*, 2013). In particular related to finance, suppliers and buyers, as well as specialist know-how. Hence, the following hypothesis will be tested.

H4: Network services demands for entrepreneurs will vary across countries.

The hypothesis proposed for testing defines the UBI environment in terms of four major factors derived from the current literature – goals/strategy, infrastructure, business support services, and networks. These are common factors across incubators around the world (Akcomak, 2009). This makes them fundamental in providing insights into UBI models across countries. The current article therefore suggests that testing of those can provide a measure for the extent to which the demand for UBI features vary between countries based on their differing institutional settings.

MATERIAL AND METHODS

Given the number of studies that have been conducted on universities incubators using qualitative research designs (Barbero *et al.*, 2012; Bruneel *et al.*, 2012; Chan & Lau, 2005) it is argued here that a carefully crafted quantitative design is the most appropriate approach to provide indicative support for our study. This research employs a questionnaire survey in order to fulfil its research objective i.e. identifying demands from potential entrepreneurs for UBI features. This study is looking at two rather under researched countries that is the UAE and Thailand. The proposed quantitative survey method can provide expansive understanding of the focused topic however this method may lack in-depth understanding as commonly found in the interview method. This article incorporates both undergraduate and graduate students in the survey in order to analyse the demand for university business incubator from two different backgrounds, with and without work-experience.

This study utilises survey data collected from undergraduate and postgraduate students in the UAE and Thailand. The students at each university had chosen an entrepreneurship or business planning module either at the undergraduate or MBA level. Due to their modules and/or experience they were already aware of the concept of UBI's, although none of the universities in the sample had a formal university business incubator established at that point.

The use of student surveys is not without criticism in the entrepreneurship literature (Robinson, Huefner & Hunt, 1991). However, the approach has been proven valuable in several related studies in recent entrepreneurship literature (e.g. Fitzsimmons & Douglas, 2011; Shepherd & De Tienne, 2005). For this study it is also seen as a suitable approach for the following reasons. Firstly, the majority of cross-country studies uses institutional managers in their samples (Lee & Osteryoung, 2004), which provide valuable insights, but do not directly address demand related issues. Secondly, in countries in which UBI's are still in their infancy or not existing at all, potential entrepreneurs are seen as providing valuable insights. Thirdly, university students are generally perceived as the major source for tenants at UBI's (Todorovic & Suntornpithug, 2008). That implies that entrepreneurship students would be most likely the first group to be aware of such incubators and most likely the first tenants in newly founded UBI's. Lastly, mature and students that are far progressed in their studies stand at a point of career choice, of which becoming an entrepreneur is one feasible option (Shepherd & De Tienne, 2005).

The measures for this survey have been adapted from the literature in order to increase reliability and validity of the scales. Special care has been taken in order to establish cross country data equivalence (Hult *et al.*, 2008). Data collection equivalence has been accounted for in a way that all questionnaires were given out in the classroom and

hence provide a similar setting for all participants. Construct equivalence has been established through pre-tests in each country. Measurement equivalence has been ensured through the use of consistent 7-point Likert scales, which have been identified as most appropriate for cross-country research (Harzing *et al.*, 2009). Scale validity has been ensured through using scales based on previous studies and a pilot test with students and academics as well as discussion with a panel of experienced researchers. Scale reliability for each has been tested through Cronbach alphas tests that were all above the 0.7 threshold.

The questionnaire has been split into two main sections. Section A, following Fitzsimmons and Douglas (2011), asks for general information such as age, education, gender, and working experience.

Section B contained four subsections. The measures have been adapted from the relevant literature. Participants have been asked to rate the importance of 4 categories on a scale from 1 (not important) to 7 (very important) on goal and strategy i.e. 'What are the most important factors for you concerning the goals and strategy of the university business incubator?' (Lee & Osteryoung, 2004; Vanderstraeten & Matthyssens, 2012). For incubator infrastructure the respondents have been asked to rate 10 categories: 'What are the most important factors for you concerning the Infrastructure provided by the university business incubator?' (Bruneel *et al.*, 2012; Ratinho, Harms & Groen, 2013; Zablocki, 2007). Nine categories have been included for networks i.e. 'What are the most important factors for you concerning the networking services provided by the university business incubator?' (Bruneel *et al.*, 2012; Chan & Lau, 2005; Ratinho *et al.*, 2013). For business support services the respondents have been asked to rate eight categories: 'How likely are you to use the following business support services provided by the university business incubator?' The categories can be found in table 2 in the next chapter. And the sample characteristics can be found in table 1 below.

Table 1. Sample characteristics

Line item	UAE	Thailand
Sample size	114	100
Gender	51.8% male	60.2% female
Age	25.3 years	24.4 years
Program enrolled	78.1% Undergraduate	53% Undergraduate
Entrepreneurial experience	74.6% no	82% no
Working experience	71.1% yes	53% no

Source: own calculation based on the research survey.

RESULTS AND DISCUSSION

The results of the analysis are provided in table 2 below. It provides the descriptive statistics (i.e. mean and standard deviation) for the total sample, the UAE and Thailand. In the first column of Table 2 we show the total mean. That is the result of all the respondents combined, i.e. Thailand and UAE. This column is provided in order to give an overview of the perception of all respondents concerning the issues that were being investigated. In order to test for the hypothesised differences, One-way ANOVA has been conducted. The significant F-Values are presented in the last column. The analysis follows

previous studies such as Lee and Osteryoung (2004) for example. Concerning the discussion on ordinal versus interval scale, this article follows Labovitz (1970). Labovitz (1970)

Table 2. Descriptive statistics and ANOVA results

Category	Total (n = 214)		UAE (n = 114)		Thailand (n = 100)		ANOVA
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	F value
Goals and Strategy							
Broad business focus	4.76	1.37	4.77	1.43	4.75	1.29	
Broad industry focus	4.76	1.29	4.74	1.36	4.79	1.21	
Narrow industry focus	4.69	1.31	4.70	1.42	4.67	1.19	
Narrow business focus	3.82	1.49	3.67	1.39	4.00	1.59	2.69†
Infrastructure							
INF print and copy	5.38	1.42	5.16	1.54	5.63	1.23	6.04*
INF parking	5.13	1.54	5.13	1.44	5.13	1.66	
INF meeting rooms	5.11	1.35	4.82	1.32	5.43	1.33	11.16**
INF conference rooms	4.99	1.31	4.73	1.34	5.29	1.23	10.16**
INF reception services	4.87	1.48	5.17	1.44	4.54	1.46	9.97*
INF production facilities	4.78	1.46	4.88	1.45	4.67	1.48	
INF laboratories	4.75	1.42	4.76	1.44	4.74	1.40	
INF individual office space	4.64	1.46	4.67	1.48	4.60	1.44	
INF postal service	4.64	1.55	4.96	1.45	4.28	1.60	10.56**
INF shared office space	4.37	1.32	4.04	1.29	4.74	1.26	15.82***
Business Support Services							
BSSbusplan	5.09	1.38	5.05	1.36	5.14	1.41	
BSSfaculty	4.83	1.39	4.78	1.28	4.89	1.52	
BSSlaw	4.83	1.50	4.82	1.51	4.84	1.48	
BSShr	4.81	1.40	4.87	1.49	4.75	1.30	
BSSworkshops	4.79	1.42	4.78	1.41	4.80	1.44	
BSSmentor	4.79	1.30	4.76	1.31	4.83	1.29	
BSS International Business focus	4.74	1.45	4.69	1.46	4.80	1.44	
BSScoaching	4.72	1.41	4.76	1.36	4.68	1.48	
Networking Services							
Financial institutions	5.41	1.20	5.25	1.34	5.60	0.99	4.74*
Suppliers	5.25	1.36	4.98	1.51	5.56	1.10	10.00*
Other tenants	5.24	1.28	4.96	1.33	5.56	1.14	12.17**
External consultants	5.22	1.26	5.09	1.30	5.38	1.20	2.88†
Business angels and VC	5.21	1.31	5.10	1.36	5.34	1.23	
Other entrepreneurs	5.20	1.34	4.96	1.41	5.47	1.20	7.81*
Accountants, legal experts, etc.	5.15	1.27	5.18	1.33	5.12	1.21	
Business plan competitions	5.10	1.28	4.96	1.32	5.27	1.22	3.23†
Governmental institutions	5.10	1.36	5.12	1.47	5.07	1.23	

***p<0.001, **p<0.01, *p<0.05, †p<0.1

Source: own elaboration.

conducts a Monte Carlo simulation in order to investigate potential measurement differences through assigning ordinal data to interval scales. The findings show that the differences are negligible, and do not outweigh the advantages gained from treating ordinal

scales as interval. This notion is also shared by Nunnally and Bernstein (1994). Therefore, this study treats the scales as interval in the subsequent analysis.

In hypothesis 1 we expected a significant difference in the means between the two groups concerning the strategy and goals of the UBI. The results, however, show little difference between the respondents from Thailand and the UAE. Only one out of four items reaches statistical significance. The item indicates a slight preference among the Thai respondents for a more narrow business focus than the UAE sample. The total means of the construct hint towards a preference for a broader scope of businesses and industry sectors to be located in the UBI. This is nevertheless in line with our expectations, given that the incubator model is still a rather novel establishment in both countries. Potential entrepreneurs might therefore feel that a broader strategy adds more value for them than a too narrow focus. This finding links in the current debate on incubator strategy and goals. This study adds to this debate by providing some evidence for a distinct developing country perspective. It seems that reasons for a narrow strategic scope of the incubator as found by Vanderstraeten and Matthyssens (2012) might be less pronounced in the context of the UAE and Thailand. The authors suggest that specialised reputation of the incubator is an important factor for tenants to gain legitimacy in the market place. In the context of the current study, however, other factors might be more important. For example, having access to a wide range of knowledge sources might be perceived as more important than having a more industrial homogenous set of start-ups in the incubator. Furthermore, complex technology might make the need to have specialised firms more prominent, this seems to be the general message from the incubator and technology transfer literature (Rothaermel *et al.*, 2007). However, for the UAE as well as Thailand is the development of complex technologies still in their infancy. Therefore is the need for technological specialisation of the incubator less evident.

Hypothesis 2 suggested that the basic infrastructure, or tangible services, provided by the UBI are of equal importance across countries, in line with findings in recent literature (Bruneel *et al.*, 2012). However, significant differences in means between potential entrepreneurs in the UAE and Thailand have been found in six out of ten items. Respondents in Thailand valued print and copy facilities, meeting rooms, conference rooms, and shared office space higher than their UAE counterparts. On the other hand, reception services and postal services were higher valued by UAE based potential entrepreneurs. This might indicate the UBI's in the UAE might have to provide their tenants with more supporting service staff than UBI's in Thailand. This finding, the higher preference for shared service in UAE may reflect on a huge difference in labour cost between UAE and Thailand. The average minimal wage in Thailand is approximately USD 300 per month, five times smaller than USD 1,500 per month in UAE. Looking at the total descriptive statistics for the Infrastructure construct, it can be observed that shared office space has been valued the lowest by all respondents in the sample. This might indicate that there is little will by the respondents to follow western style design of incubators in which the sharing of ideas is one of the core principles (Chan & Lau, 2005; Estrin *et al.*, 2013).

In our third hypothesis we expected no significant differences in the demand for business support services between countries. The respondents from Thailand and the UAE confirmed this expectation, none of the F-values has been found significant. This is

in line with the broader entrepreneurship literature in a way that it confirms a relatively homogenous demand across entrepreneurs in different countries for training and other human capital related activities (Bowen & De Clercq, 2008; De Clercq *et al.*, 2011; Estrin *et al.*, 2013). Most notably in this case, the support for business plan development seems to have been most pronounced throughout the sample. The possibility to have access to specialist faculty within the university and business law consulting also scored high. Pointing towards a likely use of internal services provided by the incubator, which might be contrary to the findings of Ratinho *et al.* (2013) who found that tenants are less likely to use internal services as compared to external ones. However, their sample was based on incubators across Western Europe. In less developed institutional settings; however, the trust in external actors might be more limited (Bowen & De Clercq, 2008; De Clercq *et al.*, 2011; Estrin *et al.*, 2013).

The last hypothesis suggested a significant difference between countries when it comes to the provision of networking services in UBI's. This was based on stark differences between the networking concepts in the west and non-western cultures (Estrin *et al.*, 2013). This has been largely confirmed in this article. Six out of nine items showed significant F values. This finding is in line with the qualitative observations made by Chan and Lau (2005) who indicated that the business incubator networking concept is only applicable to an East Asian context in a limited way. The findings of the present study seem to support their observation. In our sample, the Thai respondents seemed to be more inclined towards networking activities than the UAE ones. The most important items were networking activities with financial institutions, followed by suppliers. On third rank from the total scores we find contacts with other tenants. This might indicate that pragmatic networking activities are given priority over the more innovation focussed networking activities with fellow tenants or other entrepreneurs. For this particular sample, the respondents from Thailand had higher scores in all but two items compared to the UAE respondents. Accountants and legal experts as well as networking activities linking to governmental institutions were more important for UAE potential entrepreneurs; however, the difference was not statistically significant. Contact with suppliers, other tenants, and other entrepreneurs were significantly more important for the respondents in Thailand.

CONCLUSIONS

This research set out with the objective to shed further light on the demand side of UBI service provision. UBI's can create important platforms for the nurturing of new business ventures in their early stages, especially in less technology driven developing countries (Lalkaka, 2002). It aimed at highlighting differences between potential entrepreneurs and their demands on services provided by UBI's that follow the North American 'blueprint'. For this purpose, an institutions-based framework has been suggested. The subsequent indicative survey has been conducted with potential entrepreneurs in the UAE and Thailand.

The results indicate that there are significant differences between the two countries and their service provision requirements for UBI's. Overall, a broader scope for incubators goals and strategies seems to be preferred. This might be because of the lagging

technological complexity of industries in both countries. Broader business sector orientation might be more successful for the attraction of tenants in developing countries.

Differences have also been identified regarding the importance of infrastructure provision by incubators. More service based demands have been made by the UAE respondents, whereas the tangible side e.g. copy facilities or meeting rooms have been found more important in the Thailand sample. Overall, shared office space seemed to have a rather low standing in both countries, which also hints towards limitations of the networking and idea exchange concepts originating from the western literature and developed under different perceptions of trust (Baumol, 1990; North, 1990).

There were no differences between the two countries concerning the provision of business support services. Support in business plan development has been ranked highest by all respondents. This was in line with recent entrepreneurship literature, which emphasise the importance of human capital development in business start-ups. (Bowen & De Clercq, 2008; De Clercq *et al.*, 2011; Estrin *et al.*, 2013).

Significant differences have been found for networking service items. A more pragmatic tendency seems to drive the importance of the items. Contacts with other entrepreneurs outside the incubator, as well as other tenants inside the incubator have been given less importance than contacts with suppliers and financial institutions.

This research has two main managerial implications. Firstly, given the focus of this study on two developing economies, the demand indicators showed that a preference is given to broader strategic outlook of UBI's. That is because the incubator concept might not be as common in those countries as it is in the US or UK for example. Universities might therefore be advised to provide their reputational effects to a broader spectrum of tenants from various industries. Secondly, in order to establish a successful incubator, it might be preferable to follow local demands, rather than the North American blueprint. Important is also to take the local requirements into account when it comes to the provision of infrastructure as well as networking services. This plays also a role for policy makers.

The policy implications of this research are certainly to pay attention that universities follow local demands rather than establishing state of the art incubators that will end up being underutilised and hence abandoned. In particular, non-technology based incubators could be a successful concept for developing countries to nurture business start-ups in their early phase, provided those are aligned to the formal and informal institutional setting of the country.

There are several limitations of this study that should be overcome in future studies. The sample was based on university students from two different universities. Further studies could expand the sample size in order to increase representativeness. Continuing research is required outside the mainstream regions in order to develop a more complete picture of UBI's success and failure in developing countries. For instance, future studies can be conducted on UBI in African and South American countries. In addition, more comparative studies should be carried out within such a context in order to establish stronger patterns of localisation of incubator concepts and hence establish benchmarks if not globally, but at least on a regional level.

REFERENCES

- Akçomak, I.S. (2009). *Incubators as tools for Entrepreneurship Promotion in Developing countries* (No. 2009.52). Research paper/UNU-WIDER.
- Aerts, K., Matthyssens, P., & Vandenbempt, K. (2007). Critical role and screening practices of European business incubators. *Technovation*, 27(5), 254-267.
- Barbero, J.L., Casillas, J.C., Ramos, A., & Guitar, S. (2012). Revisiting incubation performance: How incubator typology affects results. *Technological Forecasting and Social Change*, 79(5), 888-902.
- Baumol, W.J. (1990). Entrepreneurship: Productive, unproductive and destructive. *Journal of Political Economy*, 98(5), 893–921.
- Bowen, H.P., & De Clercq, D. (2008). Institutional context and the allocation of entrepreneurial effort. *Journal of International Business Studies*, 39(4), 747-767.
- Bruneel, J., Ratinho, T., Clarysse, B., & Groen, A. (2012). The Evolution of Business Incubators: Comparing demand and supply of business incubation services across different incubator generations. *Technovation*, 32(2), 110-121.
- Chan, K.F., & Lau, T., (2005). Assessing technology incubator programs in the science park: the good, the bad and the ugly. *Technovation*, 25(10), 1215–1228.
- De Clercq, D., Lim, D.S., & Oh, C.H. (2011). Individual-Level Resources and New Business Activity: The Contingent Role of Institutional Context. *Entrepreneurship Theory and Practice*, 37(2), 303-330.
- Estrin, S., Korosteleva, J., & Mickiewicz, T. (2013). Which institutions encourage entrepreneurial growth aspirations?. *Journal of business venturing*, 28(4), 564-580.
- EC (2002). *Benchmarking of business incubators*. Brussels: European Commission.
- Fitzsimmons, J.R., & Douglas E.J. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, 26(4), 431-440.
- Friedrich, F., Harley, B., & Langbein, J. (2010). *Development guidelines for technology business incubators*. Bonn: InWEnt – Internationale Weiterbildung und Entwicklung gGmbH.
- GEM (2012). *The global entrepreneurship monitor*. Retrieved on 10 April, 2016 from www.gemconsortium.org/docs/download,2409
- GEM (2011). *Entrepreneurship in the United Arab Emirates*. Retrieved on 10 April, 2016 from www.gemconsortium.org/docs/download,2409
- GEM Thailand (2012). *Thailand Report*. Retrieved on 10 April, 2016 from www.gemconsortium.org/docs/download,2409
- Grimaldi, R., & Grandi, A. (2005). Business incubators and new venture creation: an assessment of incubating models. *Technovation*, 25(2), 111-121.
- Guerrero, M., Urbano, D., & Salamzadeh, A. (2015). Entrepreneurial transformation in the Middle East: experiences from Tehran Universities. *Technics Technologies Education Management*, 10(4), 533-537.
- Harzing, A.W., Baldueza, J., Barner-Rasmussen, W., Barzantny, C., Canabal, A., Davila, A. et al. (2009). Rating versus ranking: What is the best way to reduce response and language bias in cross-national research? *International Business Review*, 18(4), 417-432.
- Hult, G.T., Ketchen, D.J., Griffith, D.A., Finnegan, C.A., Gonzalez-Padron, T., Harmancioglu, N., Huang, Y., Talay, M.B., & Cavusgil, S.T. (2008). Data equivalence in cross-cultural international

- business research: assessment and guidelines. *Journal of International Business Studies*, 39(6), 1027-1044.
- Labovitz, S. (1970). The Assignment of Numbers to Rank Order Categories. *American Sociological Review*, 35(3), 515-524.
- Lalkaka, R. (2002). Technology business incubators to help build an innovation-based economy. *Journal of Change Management*, 3(2), 167-176.
- Lalkaka, R. (2003). Business incubators in developing countries: characteristics and performance. *International Journal of Entrepreneurship and Innovation Management*, 3(1-2), 31-55.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R.W. (1998). Law and Finance. *Journal of Political Economy*, 106(6), 1113-1155.
- Lee, S.S., & Osteryoung, J.S. (2004). A comparison of critical success factors for effective operations of university business incubators in the United States and Korea. *Journal of Small Business Management*, 42(4), 418-426.
- Mian, S.A. (1996). Assessing value added contributions of university technology business incubators to tenant firms. *Research Policy*, 25(3), 325-335.
- North, D.C. (1990). *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory*. London: McGraw-Hill.
- Ratinho, T., Harms, R., & Groen, A. (2013). Business Incubators: (How) Do They Help Their Tenants? *New Technology-Based Firms in the New Millennium*, 10, 161-182.
- Robinson, P.B., Huefner, J.C., & Hunt, K.H. (1991). Entrepreneurial research on student subjects does not generalize to real world entrepreneurs. *Journal of Small Business Management*, 29(2), 42-50.
- Rothaermel, F.T., Agung, S.D., & Jiang, L. (2007). University entrepreneurship: a taxonomy of the literature. *Industrial and corporate change*, 16(4), 691-791.
- Scaramuzzi, E. (2002). Incubators in developing countries: Status and development perspectives. *Washington DC: The World Bank*.
- Schwartz, M., & Hornyh, C. (2010). Cooperation patterns of incubator firms and the impact of incubator specialization: Empirical evidence from Germany. *Technovation*, 30(9), 485-495.
- Scillitoe, J.L., & Chakrabarti, A.K. (2010). The role of incubator interactions in assisting new ventures. *Technovation*, 30(3), 155-167.
- Shepherd, D., & DeTienne, D. (2005). Prior Knowledge, Potential Financial Reward, and Opportunity Identification. *Entrepreneurship Theory and Practise*, 29(1), 91-112.
- Todorovic, Z.W., & Suntornpithug, N. (2008). The multi-dimensional nature of university incubators: capability/resource emphasis phases. *Journal of Enterprising Culture*, 16(4), 385-410.
- Tsai, F.S., Hsieh, L.H., Fang, S.C., & Lin, J.L. (2009). The co-evolution of business incubation and national innovation systems in Taiwan. *Technological Forecasting and Social Change*, 76(5), 629-643.
- Vanderstraeten, J., & Matthyssens, P. (2012). Service-based differentiation strategies for business incubators: Exploring external and internal alignment. *Technovation*, 32(12), 656-670.
- Zablocki, E.M. (2007). Formation of a Business Incubator. In A. Krattiger, R.T. Mahoney, L. Nelsen, J.A. Thomson, A.B. Bennett, & S.P. Kowalski (Eds.), *Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices* (pp. 1305-1314). Oxford, UK: MIHR and Davis, USA: PIPRA.

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The Concept of Technological Entrepreneurship: The Example of Business Implementation

Ewa Badzińska

ABSTRACT

Objective: The objective of this paper is to identify the role of factors influencing the development of technological entrepreneurship using as example a company with academic origin in the IT sector. The scientific purpose of the study is to compile the views of scholars on technological entrepreneurship.

Research Design & Methods: The first part of the study is of descriptive character and based on literature review, while the second part is empirical. The application of the empirical method of a case study has made it possible to characterize the essence of technological entrepreneurship and illustrate the development of the studied phenomenon in business practice.

Findings: The concept of technological entrepreneurship is based on increasing innovation, new assets and competitiveness through more efficient use of research results leading to development of products and services. The process of creating technological entrepreneurship is conditioned largely by endogenous factors of organizations and also by the business ecosystem.

Implications & Recommendations: It is necessary to further develop current theory of technological entrepreneurship through discussion on the methodological dilemmas associated with conducting research in this area.

Contribution & Value Added: The article is an attempted synthesis of the concept of technological entrepreneurship as a process that combines the elements of academic and intellectual entrepreneurship with the entrepreneurship of commercial organizations implementing new technologies and innovative business solutions in the market environment.

Article type: research paper

Keywords: academic entrepreneurship; ICT solutions; technological entrepreneurship; technological innovation; technology start-up

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INTRODUCTION

An important problem in the process of developing and increasing competitiveness of young companies is the level of technological innovativeness and uniqueness of products and services. In pursuing these objectives an important role can be played by the concept of technological entrepreneurship understood as a process involving greater practical usefulness of scientific research findings on modern technologies. An essential element of this process is effective cooperation between research institutions, research and development centres, capital market institutions, business-related sphere and enterprises in order to diffuse knowledge and scientific potential into commercial solutions regarding technological innovations (Badzińska, 2015). The basis for the development of technological entrepreneurship is formed, therefore, through interactions between science, technology and business (Poznańska, 2010). This is a creative and innovative ability of knowledge-based companies and an adaptation response to the real business environment (Nacu & Avasilcăi, 2014). All the activities of this phenomenon relate to “the identification of potential entrepreneurial opportunities arising from technological developments, and the exploitation of these opportunities through the successful commercialization of innovative products” (Petti, 2012, p. xi).

The process of creating technological entrepreneurship is conditioned largely by endogenous factors of organizations, including primarily the qualifications and expertise of employees and their ability to implement innovative solutions into business practice. A significant impact on the development of technological entrepreneurship is also made by the business ecosystem covering a wide spectrum of cooperation with business environment institutions and by “external factors that influence the formation of technology firms” (Bailetti, 2012, p. 6). The history of technological entrepreneurship is strewn with solutions in search of problems (Venkataraman & Sarasvathy, 2001).

The scientific purpose of the study is to compile and synthesize the views of scholars on technological entrepreneurship. Attention was paid to a widely accepted conceptual apparatus and the multidimensionality of the phenomenon. In this part the paper refers to both Polish and foreign literature concerning the notion of technological entrepreneurship. The author presents also its own interpretation of the concept. The empirical part of the paper is an attempt to indicate the role of endogenous factors influencing the development of technological entrepreneurship using a case-study of a knowledge-based small company with academic origins from the IT industry. Particular attention was paid to the potential of human resources and organizational culture based on knowledge. The next part of the paper provides examples of how to use the potential of the company's external environment and its co-operation with the institutions of business environment, which determine the development of technological entrepreneurship. This paper may provide a starting point for an in-depth empirical research and contribution to the discussion on the methodological dilemmas associated with conducting research in this area.

LITERATURE REVIEW

The Multidimensionality of Entrepreneurship

The starting point in defining the notion of technological entrepreneurship and proposing the operationalization of this term is to present the interpretation of the concept of entrepreneurship. The multidimensionality of this phenomenon raises a number of difficulties in assessing its size and effects, hence literature and business practice have both adopted different criteria and measures for entrepreneurship (Dyduch, 2008). This is also evidenced by widely described kinds, types and models of entrepreneurship. Entrepreneurship is manifested in innovative actions, in introducing new products and technologies and in unconventional problem solving. One useful way of thinking about entrepreneurship is that it is concerned with understanding how, in the absence of markets for future goods and services, these goods and services manage to come into existence (Venkataraman, 1997). The term is also used to determine people's attitude towards the surrounding world and other individuals. This is expressed in creative and active improvement of existing states of affairs and readiness to take up new activities. Entrepreneurship consists in matching up the products of human imagination with human aspirations to create markets for goods and services that did not exist before the entrepreneurial act (Venkataraman & Sarasvathy, 2001).

A look at entrepreneurship from the angle of entrepreneurs allows one to capture its capacity for creative action, building businesses, selecting the right people to work with, as well as acquiring and properly allocating resources and taking personal risks. Drucker (2008) sees in an entrepreneur not only a person who creates organizations but, above all, someone who always searches for change, responds to it and turns it into an opportunity. Shane (2003, p. 9) proposes "the nexus between enterprising individuals and valuable opportunities" as the general framework to understand entrepreneurship. The entrepreneurship literature describes an entrepreneur as an innovative individual who introduces "new combinations" of ideas and resources and "dynamically shakes up the economy out of its previous equilibrium state" (Schumpeter, 1934, pp. 74-75). Historically, opportunities have been supposed to exist and the entrepreneur either is alert to them (Kirzner, 1979) or discovers them (Schumpeter, 1976). "...for Schumpeter the essence of entrepreneurship is the ability to break away from routine, to destroy existing structures, to move the system away from the even, circular flow of equilibrium" (Kirzner, 1973, p. 127). In turn, Shane and Venkataraman (2000; Shane, 2003) argued the entrepreneur is an alert individual who discovers existing opportunities and profits from them while Foss and Klein (2004) describe an entrepreneur as an experienced individual making judgments about an unknowable future. According to von Mises (1949), an entrepreneur "not only bears uncertainty in his judgments about deploying the resources he owns and controls, but is also alert, creative, and leader — and not some abstract, hypothetical discoverer — who is the driving force of the market" (Foss & Klein, 2012, p. 69). In turn, Hood and Young (1993) emphasize that entrepreneur is an individual with certain personality traits and in the opinion of Witt (1998) he is a charismatic leader.

A process approach to entrepreneurship is popular in literature. It involves "identifying and implementing opportunities arising in the environment" (Glinka & Gudkova, 2011, p. 55). "Entrepreneurship is seen as a process of searching for market opportuni-

ties and organizational resources necessary to exploit these opportunities in order to gain results on a long term. (...) It can be distinguished as independent risk taking ability to achieve the biggest gains in the market” (Nacu & Avasilcăi, 2014, p. 229). Entrepreneurial opportunities are extremely context specific. This means that entrepreneurial opportunities do not necessarily lie around waiting to be discovered by the entrepreneurial geniuses. Entrepreneurial opportunities often have to be “created” by using the entrepreneurial imagination to embody human aspirations in concrete products and markets (Venkataraman & Sarasvathy, 2001).

The creativity, capabilities, dynamism, and innovativeness of entrepreneurs in a country are important aspects of the absorptive capacity, which is such a distinctive characteristic of successful development experiences (Szirmai, Naude & Goedhuys, 2011). Moreover, the most important in the entrepreneurial process is “the decision to enter new international markets or to enhance the presence into international markets, which can be considered as innovation” (Wach, 2015, p. 19).

Conceptualisation of Technological Entrepreneurship

Technological entrepreneurship is a complex phenomenon that encompasses not only multiple disciplines and levels of analysis to be investigated using different perspectives, but also a case-by-case approach for the analysis to be meaningful. According to Petti (2009), the concept of technological entrepreneurship incorporates four main sets of activities relating to (i) creating new technologies or identify existing technologies (but previously undeveloped), (ii) the recognition and matching of opportunities arising from the application of these technologies to emerging market needs, (iii) technology development / application and (iv) business creation.

The dominant theme of studies on technological entrepreneurship focuses on small technology firms and on external factors that influence the formation of technology firms (Bailetti, 2012). Another theme addresses the consequences of technology based business and engineering entrepreneurship (Nicholas & Armstrong, 2003). Another important theme is the interdependence between small-firm initiatives and the external infrastructure that contributes to science and technology advances. This theme describes the systems that support the foundation of new technology firms, establishment of a new technology venture and different types of technical entrepreneurs (Jones-Evans, 1995). Liu, Chu, Hung and Wu (2005) represent ways in which entrepreneurs draw on resources and structures to exploit emerging technology opportunities. Other articles cover topics on: university and business incubators, firm spin-off and technology transfer mechanisms, government programs that support technological entrepreneurship and entrepreneurship education. The results of research conducted by Bailetti suggest that “the number of scholars contributing to the field of technological entrepreneurship is not large” (2012, p. 7). In the literature, the terms: technological entrepreneurship, technology entrepreneurship, technical entrepreneurship and techno-entrepreneurship are used synonymously (Petti, 2012).

Bailetti proposes a definition of technology entrepreneurship, and describes its distinguishing aspects. The author argues that “technology entrepreneurship is an investment in a project that assembles and deploys specialized individuals and heterogeneous assets that are intricately related to advances in scientific and technological knowledge for the purpose of creating and capturing value for a firm” (Bailetti, 2012, p. 9). The pro-

ject exploits or explores scientific and technology knowledge. External and internal individuals and organizations co-produce the project's outputs. "What distinguishes technology entrepreneurship from other entrepreneurship types is the collaborative experimentation and production of new products, assets, and their attributes, which are related to advances in scientific and technological knowledge and the firm's asset ownership rights" (Bailetti, 2012, p. 5).

Technological entrepreneurship is about managing joint exploration and exploitation, where each individual has roles and responsibilities in cooperatively moving forward toward accomplishing shared goals (Lindenberg & Foss, 2011). It focuses on investing in and executing the firms' projects, not just recognizing technology or market opportunities. Technological entrepreneurship is understood therefore, as a joint-production phenomenon that draws from a team of specialized individuals from multiple domains, some or all of whom become embedded in the technology path they try to shape in real time (Garud & Karnøe, 2003). The firm's owners and employees have no way of knowing or predicting the relevant attributes of all the assets. Asset attributes need to be created by the whole team. Technological entrepreneurship identifies, selects, and develops new attributes for the purpose of creating value for the firm and its customers.

The concept of technological entrepreneurship in Polish literature focuses on efforts to connect the scientific potential of universities and research and development centres with capital market institutions and business activities (Flaszewska & Lachiewicz, 2013). It is important to ensure optimal conditions for the commercialization of research results and their usage in enterprises in the form of new products and services through effective collaboration with research centres and the business-related sphere. Poznańska (2010) emphasizes that technological entrepreneurship provides a practical usability of research results through an effective collaboration between science, technology and the commercial world. Inventions, discoveries and new technologies – as a result of the implementation and development of the commercial market – form technological innovations that determine further development of products and processes.

Technological entrepreneurship which must be combined with innovativeness is an ability to allocate resources efficiently. The development and implementation of innovation require cooperation with institutions of business environment, including those that provide funding for such projects. In this respect, "technological entrepreneurship is related to the basic pillars of knowledge-based economy which include the following: the systems of innovativeness, education, information and communication, knowledge management processes at the organization level, regional aspects, as well as institutional and business environment" (Lachiewicz & Matejun, 2010, p. 189).

All approaches to technological entrepreneurship share the same key to its creation, namely the interactions between science and technology and the commercial world. A special role here should be attributed to centres involved in pilot deployments, market analyses, education on new technologies regarding the process of their transfer to the economic sphere. All these segments and types of institutions create a system of activities which compose the process of technological entrepreneurship. A special role is played here by the business ecosystem; a wide range of cooperation ranging from consortia or research centres, through consultancy, organizational, funding and infrastruc-

ture services, to relations with business environment institutions in the field of incubation (Badzińska, 2014).

Technological entrepreneurship formula combines both intellectual entrepreneurship and academic entrepreneurship. This perspective encompasses spin-offs, also known as professorial or academic companies, industrial and technological parks, business incubators and other forms organizing the first phase of technological entrepreneurship. Academic entrepreneurship is an expression of new jobs and opportunities that open up for college community and research and development sector. This is a manifestation of intellectual entrepreneurship coined by Kwiatkowski (2000) as laying the foundations for material wealth of individuals, social groups and nations out of immaterial knowledge. Technology start-ups represent the mainstream of academic entrepreneurship and one of the active mechanisms of the commercialization of research results.

In this study the author proposes the understanding of technological entrepreneurship as a process that combines the elements of academic and intellectual entrepreneurship with the entrepreneurship of commercial organizations – owners, managers and employees implementing new technologies and innovative business solutions in the market environment. Technological entrepreneurship is in its essence based precisely on the cooperation of companies with both the science sector and the business environment.

MATERIAL AND METHODS

Research Design and Data Collection

For the scientific purpose of this paper, a review of Polish and foreign literature has been conducted along with the analysis of secondary research results on the nature and importance of technological entrepreneurship in the modern economy. Much attention has been drawn to the concept and the characteristics of this phenomenon. The author presented also her own interpretation of the concept. The following methods were used: defining, comparing, attribute analysis, inference. The wide problem area of entrepreneurship requires the acceptance of the limitations of the study area.

The empirical part of the paper is an attempt to indicate the role of endogenous factors and external environment influencing the development of technological entrepreneurship using a case-study method on the example of a small technology company. The subject of the research is a technology Start-up – GLIP Ltd. The exploratory research was designed to identify the problem of technological entrepreneurship in business practice and the direction of further in-depth research.

Primary data acted as a basis to identify the factors influencing the development of the studied process. The necessity to confront a variety of data sources forced the application of the principle of triangulation (a multimethod research approach). Triangulation involves a conscious combination of quantitative and qualitative methods as a powerful solution to strengthen the research design. The logic is based on the fact that a single method can never adequately solve the problem of rival causal factors (Denzin, 1978; Jick, 1979; Patton, 1990).

Qualitative data was obtained from direct (in-depth) interviews conducted with the owner of the analyzed enterprise, who is responsible for innovation management. An interview questionnaire was prepared. Semi-structured interview guide contained the

following: (i) general questions about the company and its organizational structure; (ii) questions about all innovation products and projects; (iii) questions about idea generation, idea selection and project development; (iv) questions about events before its formalization and commercialization; (v) questions about the sources of financing innovative projects and the cooperation with business environment institutions and different enterprises.

In order to verify the gathered information, further telephone conversations with the manager of the company were conducted and materials were sent in an electronic form. To expand the database on the company an analysis of materials from the available secondary sources research was also conducted. This included the analysis of websites, publications and customers' opinions on opineo.pl website. An important source of data was the information obtained from Poznan Science and Technology Park of Adam Mickiewicz University Foundation, which is a strategic shareholder of the company.

Case Study

The empirical method makes use of a case study involving the analysis of processes implemented in the selected enterprise (Dyer & Nobeoka, 2000). The rationale for the use of the case study is its usefulness related to the timeliness of technological entrepreneurship phenomenon and the dynamism of its effects. There is a need to conduct a practice-oriented empirical research for better understanding of reality and to help managers choose their own path (Czakov, 2011). The applied case study should help recognize the analyzed phenomenon under real conditions (Yin, 1984), and its purpose has been the practical orientation (executive research) of the concept of technological entrepreneurship. Both descriptive and explanatory techniques were used in the presented case study. The procedure for the case study consisted of the following sequence of steps:

– Research question;

To exemplify the concept of technological entrepreneurship in business practice, the following driving research question was erected: What endogenous factors and what external environment potential determine the development of technological innovations in the analyzed company?

– The selection of case;

The case study should be a clear example to illustrate the studied correctness (Flyvberg, 2004). The example of business implementation of technological entrepreneurship was selected with a purposeful sampling technique (Merriam, 1998; Maxwell, 2005; Patton, 1990). The purposeful selection of Glip technology Start-up resulted from the following (i) the pragmatic criterion of availability of data, (ii) clarity of the explained phenomenon of technological entrepreneurship, (iii) the observed influencing factors of technological innovation. The above criteria lead to the conclusion that a single case study would help to attain the objectives of the research.

– The development of data gathering tools;

The author adopted an iterative procedure, in which the stage of verification of data gathering tools is repeated because of the information obtained or problems encountered. Data from secondary sources do not provide sufficient saturation of information for the research objectives. The need to obtain primary data on the subject

determined the carrying out of field studies (in the premises of Glip Ltd.). The confrontation of multiple data sources justifies the cyclical nature of data collection procedures in the case under examination.

- The formulation of conclusions and implications for research and practice;

The application of these research methods has made it possible to characterize the essence of technological entrepreneurship and illustrate the progress and development of the studied phenomenon in practice. The presented case study may act as a starting point for an in-depth empirical research on endogenous and exogenous factors influencing the development of technological entrepreneurship in academic start-ups. Despite the fact that the research is based on a single case study, there are some interesting implications for business practice, as described in the conclusions section.

RESULTS AND DISCUSSION

The Technology Start-up Glip Ltd

The subject of the study – Glip Ltd – is a young Polish company manufacturing multimedia touch platforms (Glip Multitouch Solutions, 2015). The founders (two men) of the technology Start-up are graduates of the Poznan University of Technology, who, on the basis of interdisciplinary knowledge and experience related to the IT industry, marketing, finance and economics, have created a modern business model. “We share passion and desire to create innovative ICT solutions for business” – declare the entrepreneurs from Glip. The company has been on the market since 2013 and currently employs 8 full-time employees, but the first multimedia devices were presented by these young entrepreneurs in 2012. ICT tools created by Glip facilitate clear and engaging communication, both within the company and around it, taking into account the realities of the fast-growing B2B and B2C markets. In its solutions the company uses modern tools of interactive communication and focuses on the customization of services dedicated to individual customer needs.

The company offers equipment based on the technology of touch, motion detection and holographic projection. The offer includes touch tables, totems and screens, as well as interactive floors and holographic pyramids. This equipment is available in a wide range of sizes and types tailored to individual projects. Glip also offers copyright software created per requests of different groups of consumers, freely customized and designed in accordance with company logo. The products are dedicated for business customers, cultural and educational institutions and local government units. Transforming the concept into a coherent and valuable application, service or device, created on the basis of professional consulting and support for the project in this phase of its implementation is a challenge faced by the young entrepreneurs of Glip.

The Influencing Factors of Technological Entrepreneurship in the Studied Company

In order to obtain an answer to the driving research question: “What endogenous factors and what external environment potential determine the development of technological innovations in the analyzed company?” – an attempt has been made to diagnose these factors. The influencing factors of technological entrepreneurship in the studied company include a set of endogenous components.

Company managers have pointed to the human factors and more precisely – the potential of staff members and organizational culture based on knowledge. The pillars of technologically entrepreneurial culture of organization should include an ability to implement technology (innovation) and take actions towards technology development (Disselkamp, 2005). The company Glip emphasizes both the individual characteristics of employees (providing them with a wide range of creative freedom) and the creativity of the team. Emphasis is laid upon the ability to generate new ideas and solutions and to improve adaptation to the changing environment. Managers attach great importance to building their own developmental base (both physical and intellectual) and to the commercialization of solutions and applications designed by employees. Responsible leadership, commitment and great determination of employees to reach objectives constitute the challenges posed by young entrepreneurs from Glip.

The concept of technological entrepreneurship is permanently inscribed in the strategy of the company. The main purpose of the team of young entrepreneurs is to create and promote innovative projects that will explore new opportunities and offer unique business solutions with the support of ICT. The mission of the team is to break standards, avoid boilerplate solutions and undertake interesting challenges. “Glip wants to stay ahead of the needs of the users and even create such needs” – says the manager of the company. A clearly defined purpose, aims and priorities allow the company to point towards development and fulfill its mission. A common vision of development strategy concerns the creation of new ICT solutions tailored to the specific needs of clients. In the analyzed company the basis for the creation of the management style is to build a climate of dialogue, partnership relations and free flow of information. The organizational structure and motivation procedures are tailored to the needs of the implemented ICT solutions. An important role in the development of technological entrepreneurship is played by the management through objectives and the delegation of powers for self-learning and acquiring new skills.

Organizational culture constitutes a common system of meanings, which is the basis of communication and mutual understanding. On the one hand, the culture of organization shapes its style and atmosphere, governs the approach to work and attitudes of people on how to perform tasks. On the other hand, it determines the effectiveness of the organization and carries significant implications for the motivation of employees. By building an entrepreneurial organizational culture the analyzed company creates its own patterns of behaviour and patterns of action, thus gaining unique expertise and the ability to cope with the changing environment. The basis of organizational culture at Glip is the awareness of the importance of knowledge, commitment to shared values and the creation of an attitude of cooperation and not rivalry. These are the necessary conditions to create a culture of creative thinking to support the development of technological entrepreneurship. An important aspect is also the consistency of operations and customer-oriented employees with high attention to the quality of services. Creating a culture based on knowledge, identifying employees with the company and the continuous technological development are key values of the analyzed organization. Knowledge management supports both innovative processes and technological entrepreneurship in order to effectively implement and commercialize the designed solutions and applications.

An important aspect in the development of technological entrepreneurship is to create an attitude of openness among employees regarding knowledge, study the environment in terms of demand for new ICT solutions and look for external sources of information to fill gaps in intellectual resources. In this context, the important role is played by cooperation with selected research institutions and organizations supporting technology transfer. The external environment potentially determines the development of technological innovations in the analyzed company. Building a network for the exchange of information and the diffusion of knowledge between employees and cooperators takes place through the implementation of joint projects. Company managers attach great importance to creating an attitude of openness to new solutions and to the dissemination of information and communication technologies. The pro-innovation attitude is something more than just a search for new solutions in a changing environment. The external knowledge search plays a key role in achieving variety through the identification and acquisition of new information and ideas that, in combination with their internal knowledge base, lead firms to generate solutions for emerging problems and new opportunities (Cruz-Gonzalez, Lopez-Saez, Navas-Lopez & Delgado-Verde, 2015).

Among the activities undertaken by the company in the field of cooperation with the business ecosystem and in creating favorable institutional environment to support the transfer of technology, it is necessary to mention strict scientific and research cooperation between Glip and Poznan Science and Technology Park of Adam Mickiewicz University Foundation. The project called InQbator Seed co-financed by the European Union under the Innovative Economy Operational Programme aided the company in 2013 with the amount of 500 000 PLN (Mam Startup, 2013). It was an important financial aid determining the development of the young technology start-up. The funds have enabled further research and progress on the construction of large-format touch surfaces and specialized software.

Another example of the co-operation with the institutions of business environment is taking part in the prestigious competition called Poznan Leader of Entrepreneurship 2014 in the category Start-up 2014. The competition is aimed at young, innovative companies based on knowledge and new technologies. It is organized jointly by Poznan City Hall and County Office and designed to support outstanding enterprises from the SME sector which have been building their strong market position (Poznan Leader of Entrepreneurship, 2014). Technological innovations and the entrepreneurship of young people employed by Glip were fundamental for the company to win the first place in the Poznan Leader of Entrepreneurship 2014 competition (Winner in the category Start-up, 2015). In 2014, Glip also won the VII edition of the Award of the Marshal of Greater Poland "i-Greater Poland – The Innovative for Greater Poland". This is a special award for entrepreneurs who, through their creativity and openness to new scientific thought, bring innovative solutions to the market.

The cooperation of the company with business institutions in the field of science and culture supports the transfer of knowledge into commercial solutions in the field of technological innovations. Glip's technology has been used in the Mobile Museum of the Greater Poland Uprising. It is an example of cooperation with the Foundation of Greater Poland Brand – the main organizer of the project. With Glip's technological support some private family heirlooms of people associated with this historic event were scanned.

During the show, Glip unveiled nearly 30 square meters of interactive space – touch tables, floors, screens and holograms. The collected documents, dates, places and characters are presented using technology based on motion detection and touch.

The cooperation with the institutions of business environment in consulting, organizing and financing innovative ICT solutions constitute the condition for development for this company. These examples confirm that the environment and the conditions conducive to the process of technological entrepreneurship can be found on various grounds of companies and institutions as well as surrounding entities. The conducted exploratory research aimed at problem identification and determination of the direction of further research. The data analysis connecting with the examined phenomenon suggests that the concept of technological entrepreneurship is based on increasing innovation, new assets and competitiveness through more efficient use of research results leading to development of products and services. Both endogenous factors and external environment undoubtedly play an important role in the process of technological entrepreneurship associated with the basic pillars of knowledge economy. However, there is a need for conducting a broader quantitative research confirming the importance of the listed endogenous and exogenous factors.

CONCLUSIONS

The process of creating technological entrepreneurship is a joint achievement of the team from the studied company Glip, which offers support with knowledge and expertise. Employees in this process show a tendency to take actions aimed at continuous development and risk taking, while managers manifest the characteristics of leaders who are open to innovativeness. It is worth keeping in mind that people are the basis for the functioning of every company. Their attitude, creativity, invention and courage impact the overall innovativeness. However, this requires full acceptance of goals, motivation and commitment to tasks.

The empirical findings are reflected in the light of development of technological entrepreneurship with regard to Glip technology Start-up. The paper finds that both the potential of human resources and the potential of the company's external environment contribute to firms' recognition of entrepreneurial opportunities as well as to development of technological entrepreneurship. Young, technology start-ups are able to create and use intellectual potential. It is necessary, however, to support them in the process of technology transfer. It is also worth pointing out the interactive nature of this process, in which various feedback loops take place between the senders and receivers of knowledge and new technological and organizational solutions (Matusiak, 2011). Supporting the development of innovative technology start-ups and accelerating the process of intellectual property commercialization may significantly contribute to further integration of academics and practitioners in the implementation of the concept of technological entrepreneurship.

The study confirms that case studies in the field of technological entrepreneurship should develop the existing theory and provide explanations of the hitherto unrecognized phenomena. However, the rationale for conduct of a practice-oriented empirical research is its usefulness for managers and business reality. In addition, they will allow for a better understand and development of the analyzed processes, taking into account

the economic, social and cultural characteristics of the region. The wide problem area of entrepreneurship requires the acceptance of the limitations of the study area. The empirical method makes use of a case study which has helped to recognize the analyzed phenomenon under real conditions (Yin, 1984), however, there is a need for conducting a broader research. The presented case study can be a starting point for an in-depth empirical theory-creating research (for instance the multiple-case studies approach as suggested by Eisenhardt (1989), Yin (1984), Voss, Tsiriktsis and Frohlich (2002) and Eisenhardt and Graebner (2007) recommendations), providing hypotheses for quantitative research, or making room for exploration that was previously perceived differently or simply overlooked. The findings of case studies can help practitioners in designing processes more adapted to the characteristics of their projects and contingencies, which may lead to a better allocation of resources and better efficiency in general (Salerno *et al.*, 2015). Furthermore, a quantitative research confirming the importance of factors influencing the development of technological entrepreneurship would have a greater cognitive value and impact on the business practice.

It is necessary to develop the current theory of technological entrepreneurship and provide the discussion on the methodological dilemmas associated with conducting research in this area. The contribution of the author to the research theme is both an attempted synthesis of the views of scholars on technological entrepreneurship and own interpretation of the concept. The author proposes the understanding of technological entrepreneurship as a process that combines the elements of academic and intellectual entrepreneurship with the entrepreneurship of commercial organizations implementing new technologies and innovative business solutions in the market environment. Technological entrepreneurship is in its essence based precisely on the cooperation of companies from both the science sector and the business environment.

Despite the fact that the research is based on a single case study, there are some implications and recommendations for business practice. The creation by Glip of innovative ICT solutions and multimedia devices may allow the company the early internationalization of its business activity (Oviatt & McDougall, 2005; Cavusgil & Knight, 2009) and become a key tool in generating wealth in international business environment. Opportunity recognition is an important aspect on entrepreneurship, especially for technology-based ventures. However, to successfully compete on the global market entrepreneurs have to break standards, avoid boilerplate solutions and undertake interesting challenges.

Furthermore, the author emphasizes that important stimuli for the process of creating technological entrepreneurship are both the local climate and the commitment of local government and business institutions. The lack of any formulated innovation strategy for the region undoubtedly inhibits the development of entrepreneurial activities and pro-innovation structures of the region itself. It is vital, therefore, to create an effective system of support from financial institutions, non-profit organizations and EU programs for entrepreneurship infrastructure development and technology transfer. The formation of regional innovation policy and the assurance of international cooperation in terms of technology transfer from research centres to technology start-ups both constitute essential conditions for effective implementation of the concept of technological entrepreneurship into economic practice.

REFERENCES

- Badzińska, E. (2014). Indywidualizacja rozwiązań ICT w praktyce gospodarczej na przykładzie start-upów akademickich. *Business Informatics*, 2(32), 24-32.
- Badzińska, E. (2015). Technology entrepreneurship as a condition for the transfer of innovative solutions to business practice. In *16th EBES Conference – Istanbul Program and abstract book* (p. 112). Istanbul: EBES Publications.
- Bailetti, T. (2012). Technology Entrepreneurship: Overview, Definition, and Distinctive Aspects. *Technology Innovation Management Review*, 2(2), 5-12.
- Cavusgil, S.T., & Knight, G. (2009). *Born global firms: A new international enterprise*. New York: Business Expert Press.
- Cruz-González, J., López-Sáez, P., Navas-López, J.E., & Delgado-Verde, M. (2015). Open search strategies and firm performance: The different moderating role of technological environmental dynamism. *Technovation*, 35, 32-45. doi:10.1016/j.technovation.2014.09.001
- Czakon, W. (2011). Zastosowanie studiów przypadku w badaniach nauk o zarządzaniu. In W. Czakon (Ed.), *Podstawy metodologii badań w naukach o zarządzaniu* (pp. 46-63). Warszawa: Wolters Kluwer Business.
- Denzin, N.K. (1978). *The Research Act: A theoretical introduction to sociological methods*. New York: McGraw-Hill.
- Disselkamp, M. (2005). *Innovationsmanagement: Instrumente und Methoden zur Umsetzung im Unternehmen*. Wiesbaden: Gabler Verlag.
- Dyduch, W. (2008). *Pomiar przedsiębiorczości organizacyjnej*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
- Dyer, J., & Nobeoka, K. (2000). Creating and Managing a High Performance Knowledge-Sharing Network: The Toyota Case. *Strategic Management Journal*, Special Issue: Strategic Networks, 21(3), 345–367. doi: 10.1002/(SICI)1097-0266(200003)21:3<345::AID-SMJ96>3.0.CO;2-N
- Drucker, P.F. (2008). *Myśli przewodnie*. Warszawa: Wydawnictwo MT Biznes.
- Eisenhardt, K.M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532-550.
- Eisenhardt, K.M., & Graebner, M.E. (2007). Theory building from cases: opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32.
- Flaszewska, S., & Lachiewicz, S. (2013). Przedsiębiorczość technologiczna we współczesnej gospodarce. In S. Lachiewicz, M. Matejun, & A. Walecka (Eds.), *Przedsiębiorczość technologiczna w małych i średnich firmach* (pp. 11-24). Warszawa: Wydawnictwo WNT.
- Flyvbjerg, B. (2004). Five Misunderstandings About Case-Study Research. In C. Seale, G. Gobo, J.F. Gubrium, & D. Silverman (Eds.), *Qualitative Research Practice* (pp. 390-404). London and Thousand Oaks: Sage Publications.
- Foss, N.J., & Klein, P.G. (2004). *Entrepreneurship and the Economic Theory of the Firm: Any Gains from Trade?* Copenhagen Business School CKG: Working Paper No. 11.
- Foss, N.J., & Klein, P.G. (2012). *Organizing Entrepreneurial Judgment: A New Approach to the Firm*. Cambridge: Cambridge University Press.
- Garud, R., & Karnøe, P. (2003). Bricolage versus breakthrough: distributed and embedded agency in technology entrepreneurship. *Research Policy*, 32(2), 277-300. doi:10.1016/S0048-7333(02)00100-2
- Glinka, B., & Gudkova, S. (2011). *Przedsiębiorczość*. Warszawa: Wolters Kluwer Business.

- Glip Multitouch Solutions. (2015). Retrieved on June 10, 2015 from <http://glip.pl/index.html>
- Hood, J.N., & Young, J.E. (1993). Entrepreneurship's requisite areas of development: A survey of top executives in successful entrepreneurial firms. *Journal of Business Venturing*, 8(2), 115-135. doi:10.1016/0883-9026(93)90015-W
- Jick, T.D. (1979). Mixing Qualitative and Quantitative Methods: Triangulation in Action. *Administrative Science Quarterly*, 24(4), 602-611.
- Jones-Evans, D. (1995). A typology of technology-based entrepreneurs: A model based on previous occupational background. *International Journal of Entrepreneurial Behavior & Research*, 1(1), 26-47. doi:<http://dx.doi.org/10.1108/13552559510079751>
- Kirzner, I. (1979). *Perception, Opportunity, and Profit: Studies in the Theory of Entrepreneurship*. Chicago: University of Chicago Press.
- Kwiatkowski, S. (2000). *Przedsiębiorczość intelektualna. Bogactwo z wiedzy*. Warszawa: PWN.
- Lachiewicz, S., & Matejun, M. (2010). The role of External Environment in Creating Technology Entrepreneurship in Small and Medium-Sized Enterprises. *Management*, 14(1), 187-202.
- Lindenberg, S., & Foss, N.J. (2011). Managing joint production motivation: The role of goal framing and governance mechanisms. *Academy of Management Review*, 36(3), 500-525.
- Liu, T.H., Chu, Y.Y., Hung, S.Ch., & Wu, S.Y. (2005). Technology entrepreneurial styles: a comparison of UMC and TSMC. *International Journal of Technology Management*, 29(1/2), 92-115.
- Mam Startup 2013. InQbator Seed inwestuje w interaktywne stoły z Poznania. Retrieved on March 4, 2015, from <http://mamstartup.pl/pressroom/4583/inqbator-seed-inwestuje-w-interaktywne-stoly-z-poznania>
- Matusiak, K.B. (Ed.). (2011). *Innowacje i transfer technologii. Słownik pojęć*. Warszawa: PARP.
- Maxwell, J.A. (2005). *Qualitative Research Design: an Interactive Approach* (2nd edition). Thousand Oaks, CA: Sage Publications.
- Merriam, S.B. (1998). *Qualitative Research and Case Studies Applications in Education*. San Francisco: Jossey-Bass Publications.
- Nacu, C.M., & Avasilcăi, S. (2014). Technological ecopreneurship: conceptual approaches. *Procedia – Social and Behavioral Sciences*, 124, 229-235. doi:10.1016/j.sbspro.2014.02.481
- Nichols, S.P., & Armstrong, N.E. (2003). Engineering Entrepreneurship: does entrepreneurship have a role in engineering education? *Antennas and Propagation Magazine*, 45(1), 134-138. doi: 10.1109/MAP.2003.1189659
- Oviatt, B.M., & McDougall, P.P. (2005). Defining International Entrepreneurship and Modeling the Speed of Internationalization. *Entrepreneurship: Theory and Practice*, 29(5), 537-554. doi: 10.1111/j.1540-6520.2005.00097.x
- Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods* (2nd edition). Newbury Park: Sage Publications.
- Petti, C. (Ed.) (2009). *Cases in technological entrepreneurship: Converting ideas into value*. Northampton, MA: Edward Elgar Publishing.
- Petti, C. (Ed.) (2012). *Technological Entrepreneurship in China: How Does it Work?* Northampton, MA: Edward Elgar Publishing.
- Poznan Leader of Entrepreneurship. (2014). Retrieved on April 20, 2015, from <http://www.poznan.pl/mim/lidermisp/poznanscy-liderzy-przedsiębiorczosci,p,9019,9025.html>
- Poznańska, K. (2010). *Przedsiębiorczość technologiczna*. Retrieved on April 20, 2015 from http://www.pol-nord.eu/IP_Workshop/Prof._Krystyna_Poznanska_-_Przedsiębiorczosc_technologiczna.pdf

- Salerno, M.S., de Vasconcelos Gomes, L.A., da Silva, D.O., Bagno, R.B., & Freitas, S.L.T.U. (2015). Innovation processes: Which process for which project? *Technovation*, 35, 59-70. doi:10.1016/j.technovation.2014.07.012
- Schumpeter, J.A. (1934). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle* (2nd edition). Cambridge: Harvard University Press.
- Schumpeter, J.A. (1976). *Capitalism, Socialism, and Democracy*. New York: Harper Row.
- Shane, S. (2003). *A general theory of entrepreneurship: the individual-opportunity nexus*. Northampton, MA: Edward Elgar Publishing.
- Shane, S., & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *Academy of Management Review*, 25(1), 217-227.
- Szirmai, A., Naudé, W., & Goedhuys, M. (2011). *Entrepreneurship, Innovation, and Economic Development: An Overview*. Oxford: Oxford University Press.
- Venkataraman, S. (1997). The Distinctive Domain of Entrepreneurship Research. In J. Katz (Ed.), *Advances in Entrepreneurship, Firm Emergence, and Growth* (pp. 119-138). JAI Press, Vol. 3.
- Venkataraman, S., & Sarasvathy, D. (2001). Strategy and Entrepreneurship: Outlines of an Untold Story. *Darden Business School Working Paper*, 01-06, 1-34.
- Von Mises, L. (1949). *Human Action: A Treatise on Economics*. Yale University Press.
- Voss, C., Tsiriktsis, N., & Frohlich, M. (2002). Case research in operations management. *International Journal of Operations & Production Management*, 22(2), 195-219. doi: 10.1108/01443570210414329
- Wach, K. (2015). Entrepreneurial Orientation and Business Internationalization Process: The Theoretical Foundations of International Entrepreneurship. *Entrepreneurial Business and Economics Review*, 3(2), 9-24. doi:10.15678/EBER.2015.030202
- Winner in the category Start-up. (2014). Retrieved on April 20, 2015, from <http://www.poznan.pl/mim/main/laureat-w-kategorii-start-up-glip-sp-z-o-o,poi,4680/laureat-w-kategorii-start-up-glip-sp-z-o-o,55210.html>
- Witt, U. (1998). Imagination and leadership – The neglected dimension of an evolutionary theory of the firm. *Journal of Economic Behavior & Organization*, 35(2), 161-177. doi:10.1016/S0167-2681(98)00058-4
- Yin, R.K. (1984). *Case Study Research: Design and Methods*. Thousand Oaks: Sage Publications.

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Positive Leadership and Corporate Entrepreneurship: Theoretical Considerations and Research Propositions

Przemysław Zbierowski

ABSTRACT

Objective: The objective of the paper is to describe the approaches to positive leadership and propose research directions on its impact on corporate entrepreneurship. There is much debate within positive leadership domain and the question arises if positive style of leadership supports the entrepreneurship within corporations conceptualised as entrepreneurial orientation.

Research Design & Methods: The main method employed in the paper is critical literature review. Based on that, some research propositions are formulated.

Findings: Four research propositions concern the possible impact of positive leadership on corporate entrepreneurship. It is proposed that authentic leadership, fundamental state of leadership, psychological capital and positive deviance all positively influence corporate entrepreneurship.

Implications & Recommendations: The main implications of the paper concern future research in corporate entrepreneurship domain. Moreover, the indirect impact is expected on managerial practice in future research results concerning supporting corporate entrepreneurship by enhancing positive leadership behaviours.

Contribution & Value Added: The paper opens new line of research on the crossroads of positive organizational scholarship research and entrepreneurship theory. The main contribution of the paper is to draw attention to the models of leadership that might be critical for entrepreneurship inside organisations.

Article type: conceptual article

Keywords: corporate entrepreneurship; positive organizational scholarship; positive leadership; psychological capital; authentic leadership; fundamental state of leadership; positive deviance

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INTRODUCTION

While leadership is one of the leading issues in positive organisational scholarship (POS), there has been a lot of confusion and chaos in that regard. Moreover, rapid development of positive leadership theories has been observed in the last decade since the statement that “the understanding, developmental process, and implementation of needed positive leadership still remains largely under-researched by both the leadership and recently emerging positive psychology fields” (Luthans & Avolio, 2003, p. 241). Additionally, few papers concern the impact of positive leadership on other phenomena at organisational level, for example firm level entrepreneurship. Therefore, the objective of the paper is to describe the approaches to positive leadership and propose research directions on its impact on corporate entrepreneurship of firms. The objective is of theoretical and practical importance, as the debate on supporting entrepreneurship in enterprises are being looked for by managers. The question of style of leadership that enhances corporate entrepreneurship is in line with very recent research directions proposed by leading scholars (Levie, 2016).

The paper presents the theory of positive organisational scholarship (POS) with the focus on positive leadership. Some of the leadership concepts preceding POS but corresponding to it are presented as well, such as transformational leadership or servant leadership. The main body of the paper presents three positive leadership concepts: fundamental state of leadership, authentic leadership and positive deviance. Moreover, the construct of psychological capital (PsyCap) is presented. Additionally, research propositions on impact of positive leadership on corporate entrepreneurship are presented. The research was carried out within research project 2014/13/B/HS4/01618 funded by National Science Centre in Poland.

As the paper is of conceptual nature the main method applied is critical literature review. The material for this review are mainly papers and book chapters published under the banner of positive organisational scholarship, however, the review is not limited to that sources. The main purpose of literature review is to uncover the processes in which positive leadership contributes to entrepreneurship inside organisations and to formulate research propositions. The paper does not list the studies undertaken in this regard before, as they are not available.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Positive Organisational Scholarship and Positive Leadership

POS is an umbrella concept and has its main inspiration in positive psychology that proposes different perspective, not replacing traditional approach, but attempting to supplement it. It redirects focus from what is wrong with people toward emphasizing human strengths that allow people to build the best in live, thrive and prosper. POS proposes a new philosophy of organisation. While it doesn't reject the organisational and social phenomena, such as greed, selfishness, manipulation, distrust or anxiety, it emphasizes the “positive” ones, e.g. appreciation, collaboration, virtuousness, vitality, meaningfulness, trustworthiness, resilience, wisdom, loyalty, respect and honesty (Cameron, Dutton & Quinn, 2003; Cameron & Spreitzer, 2012). POS proposes new approach both in ontolo-

gy and epistemology of organisational science, it sheds new light on what organisation is and how to get to know it. It is not a single theory, more of a viewpoint putting emphasis on positive and dynamic social and organisational phenomena, encompassing attention “to the enablers (e.g., processes, capabilities, structures, methods), the motivations (e.g., unselfishness, altruism, contribution without regard to self), and the outcomes or effects (e.g., vitality, meaningfulness, exhilaration, high-quality relationships) associated with positive phenomena” (Cameron *et al.*, 2003, p. 4).

Cameron and Spreitzer (2012) argue that the convergence in understanding positivity can be summarized in four approaches: (1) adopting a unique lens or an alternative perspective that puts more emphasis on positive phenomena and attributes more importance to them, (2) focusing on extraordinarily positive outcomes or positively deviant performance, outcomes dramatically exceeding common or expected performance, (3) an affirmative bias that fosters resourcefulness – elevating the resources in individuals, groups, and organisations to build capacity, and (4) the examination of virtuousness or the best of the human condition with eudaemonic assumption.

The careful analysis of the POS underlying philosophy brings to a conclusion that at the core of focus of the notion are human strengths that result in extraordinary organisational performance. Moreover, founders of POS always stress the critical importance of uplifting interpersonal relationships, especially relationships between leaders and their followers (Quinn, 2005; Cameron, 2008). POS scholars also refer to some earlier leadership theories developed mainly in 1970s, especially to transformational leadership and servant leadership.

Pre-Pos Positive Leadership Approaches

Transformational leadership theory stresses the fact, that leadership is a process by which a person interacts with others and is able to create a relationship that results in a high degree of trust, that will later result in an increase of motivation, both intrinsic and extrinsic of both leaders and followers. The core of transformational leadership theories is the assumption that leaders transform their followers (instead of just transacting with them as in transactional theories) through their inspirational nature and charismatic personality. Rules and regulations are flexible, guided by group norms. These attributes provide a sense of belonging for the followers as they can easily identify with the leader and its purpose. Transformational leadership theory rests on the assertion that certain leader behaviours can arouse followers to a higher level of thinking (Bass, 1985; Burns, 1978). By appealing to followers’ ideals and values, transformational leaders enhance commitment to a well-articulated vision and inspire followers to develop new ways of thinking about problems (Piccolo & Colquitt, 2006).

Probably the most wide-spread model of transformational leadership was proposed by Bass (1985). He was interested in the extent to which a leader influences followers. Followers go after a leader because of trust, honesty, and other qualities and the stronger these are, the greater loyalty they have for the leader. The leader transforms the followers because of having these qualities. Not only is the leader a role model, but he exhorts the followers to challenge the existing order, the revolutionary being a stark example of this. While the leader may have democratic motives in mind, he can assume a transaction leadership style at the same time, directing the followers to do things. Bass stressed following aspects of transformational leadership: (1) Individual consideration is

the degree to which leaders attend to followers' needs, act as mentors or coaches, and listen to followers' concerns. Individual consideration, where there is an emphasis on what a group member needs. The leader acts as a role model, mentor, facilitator, or teacher to bring a follower into the group and be motivated to do tasks. (2) Intellectual stimulation is the degree to which leaders challenge assumptions, take risks, and solicit followers' ideas. Intellectual stimulation is provided by a leader in terms of challenge to the prevailing order, task, and individual. Leader seeks ideas from the group and encourages them to contribute, learn, and be independent. The leader often becomes a teacher. (3) Inspirational motivation is the degree to which leaders articulate visions that are appealing to followers. Inspiration by a leader means giving meaning to the follows of a task. This usually involves providing a vision or goal. The group is given a reason or purpose to do a task or even be in the organisation. The leader will resort to charismatic approaches in exhorting the group to go forward. (4) Idealized influence is the degree to which leaders behave in charismatic ways that cause followers to identify with them. Idealized influence refers to the leader becoming a full-fledged role model, acting out and displaying ideal traits of honesty, trust, enthusiasm and pride.

Servant leadership philosophy was founded by Greenleaf in the essay "The Servant As Leader". Greenleaf (1977), a practitioner with a forty-year career in AT&T, compiled his observations to stimulate dialogue and build a better, more caring society. He described himself as a lifelong student of organisations and how things get done (Greenleaf, 1977, p. 336). Although Greenleaf (1977) never formally defined servant-leadership, others have described it as valuing individuals and developing people, building community, practicing authenticity, and providing leadership that focuses on the good of those who are being led and those whom the organisation serves. The strength of servant-leadership in encouraging follower learning, growth, and autonomy "suggests that the untested theory will play a role in the future leadership of the learning organisation" (Bass, 2000, p. 31).

Main Positive Leadership Approaches

As said before, leadership is one of the leading topics in positive organisational scholarship. However, a couple of partly competing and partly supplementing each other theories have been developed in the last decade and a half that introduces some degree of disorder. Probably the most widespread approach is that of authentic leadership. It was also the only positive leadership theory included in original POS foundation book by Cameron *et al.* (2003): "this is the only chapter in this book on positive organisational scholarship that deals directly with leadership, and there are no entries in the recently published Handbook of Positive Psychology" (Luthans & Avolio, 2003, p. 241).

Authenticity itself is one of the pillars of positive organisational scholarship. All the other phenomena discussed within POS have no value and meaning if they are not true and authentic. POS researchers trace back authenticity to ancient times and modernism. Positive psychologists conceive authenticity as both owning one's personal experiences (thoughts, emotions, beliefs) and acting in accord with the true self (behaving and expressing what you really think and believe) (Harter, 2002). Therefore, authentic leadership is purely based on authenticity, authentic leaders do not try to coerce or even rationally persuade associates, but rather the leader's authentic values, beliefs, and behaviours serve to model the development of associates.

Authentic leadership is an approach to leadership that emphasizes building the leader's legitimacy through honest relationships with followers which value their input and are built on an ethical foundation. Generally, authentic leaders are positive people with truthful self-concepts who promote openness. By building trust and generating enthusiastic support from their subordinates, authentic leaders are able to improve individual and team performance. Luthans and Avolio (2003) provide a wide range of characteristics of authentic leaders. They are confident, hopeful, optimistic, resilient, transparent, moral/ethical, future-oriented and associate building. However, perhaps the most robust model of authentic leadership was proposed by Walumbwa, Avolio, Gardner, Wernsing and Peterson (2008). They highlight and introduce a measure of four principles of authentic leadership: (1) self-awareness: an ongoing process of reflection and re-examination by the leader of own strength, weaknesses, and values; (2) relational transparency: open sharing by the leader of own thoughts and beliefs, balanced by a minimization of inappropriate emotions; (3) balanced processing: solicitation by the leader of opposing viewpoints and fair-minded consideration of those viewpoints; and (4) internalized moral perspective: a positive ethical foundation adhered to by the leader in relationships and decisions that is resistant to outside pressures.

A careful analysis of the dimensions of authentic leadership brings to a conclusion that the concept partly overlaps with some previous approaches, namely transformational leadership and emotional intelligence. With the first concept it shares balanced processing that corresponds to individual consideration. Emotional intelligence brings to authentic leadership self-awareness and empathy that corresponds to balanced processing.

Another positive concept of leadership that was created a little bit later by Quinn (2005) and is more difficult to grasp is fundamental state of leadership. The essence of it is answering four questions: "Am I results centred? (Am I willing to leave my comfort zone to make things happen?) Am I internally directed? (Am I behaving according to my values rather than bending to social or political pressures?) Am I other focused? (Am I putting the collective good above my own needs?) Am I externally open? (Am I receptive to outside stimuli that may signal the need for change?)" (Quinn, 2005, p. 75). Quinn claims that "asking and answering these questions tends to change the being state. New feelings, thoughts, behaviours, and techniques then emerge. The person makes deep change and exerts new patterns of influence." (Quinn & Anding, 2005, pp. 489-490).

However, the critical question in reaching fundamental state of leadership is: Who am I? (What are my values? What would I never compromise?). In this sense fundamental state of leadership draws from emotional intelligence self-awareness being the basic component. Also other focus is based on one of the components of emotional intelligence – empathy.

Quinn (2005) opposes fundamental state of leadership to ordinary state. He also argues that "people who observe excellence from the normal state see only what their conceptual tools allow them to see. (...) Normal thinking, based on the assumptions of transaction and analyses is going to capture the part and not the whole. Normal thinking lacks the requisite variety, the complexity to capture what is there." (Quinn & Anding, 2005, p. 494). Therefore, fundamental state of leadership should be treated as a higher

state of awareness, that, however, can be achieved by combining four components: (1) results orientation, (2) internal direction, (3) other focus, and (4) external openness. Two more attributes of fundamental state of leadership should be noticed. First, Quinn argues that it might not be fully conscious. People could enter fundamental state of leadership without even knowing it. Second, it is a temporary state. People enter and exit it as victims of entropy.

The final concept that can be qualified as positive leadership theory is positive deviance. Originally it was created as an approach to behavioural and social change based on the observation that in any community, there are people whose uncommon but successful behaviours or strategies enable them to find better solutions to a problem than their peers, despite facing similar challenges and having no extra resources or knowledge than their peers. These individuals are referred to as positive deviants (Tuhus-Dubrow, 2009). To augment positive deviance from the individual to the firm level, the operational definition of corporate deviance consists of three specific and measurable components: intentionality, departure from referent group norms, and of either a harmful or an honourable nature. Positive deviant behaviour, by definition, has to be “voluntary, purposeful, and discretionary, rather than forced or coerced” (Spreitzer & Sonenshein, 2004, p. 842).

The most comprehensive model of positive deviance was presented by Cameron (2008). He states that positive leadership: (1) refers to the facilitation of positively deviant performance, (2) refers to an affirmative bias, and (3) focuses on facilitating the best of the human condition, or on fostering virtuousness. Cameron also presents four leadership strategies that enable positive deviance: (1) positive climate (fostering compassion, forgiveness and gratitude), (2) positive relationships (building energy networks and reinforcing strengths), (3) positive communication (obtaining best-self feedback and using supportive communication), and (4) positive meaning (affecting human well-being, connecting to personal values, highlighting extended impact and building community) (Figure 1). Enhancing one of the strategies tends to positively impact the other three.

Psychological Capital

Luthans and Avolio (2003) define authentic leadership in organisations as a process that draws from positive psychological capacities and a highly developed organisational context, which results in both greater self-awareness and self-regulated positive behaviours on the part of leaders and followers, fostering positive self-development. By positive psychological capacities they understand mainly psychological capital (PsyCap), construct that replaced positive psychological capacities a year later (Luthans & Youssef, 2004). This composite construct has been defined as “an individual’s positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success” (Luthans, Youssef & Avolio, 2007, p. 3). It should be also emphasized here, that there has been a discussion going on about what psychological capital really is: more a trait or more a state. Luthans, Avolio, Avey and Norman (2007, p. 544) argue that on the continuum from trait, through trait-like and state-like to

state, it is state-like, “relatively malleable and open to development; the constructs could include not only efficacy, hope, resilience, and optimism, but also a case has been made for positive constructs such as wisdom, well-being, gratitude, forgiveness, and courage as having “state-like” properties as well”.

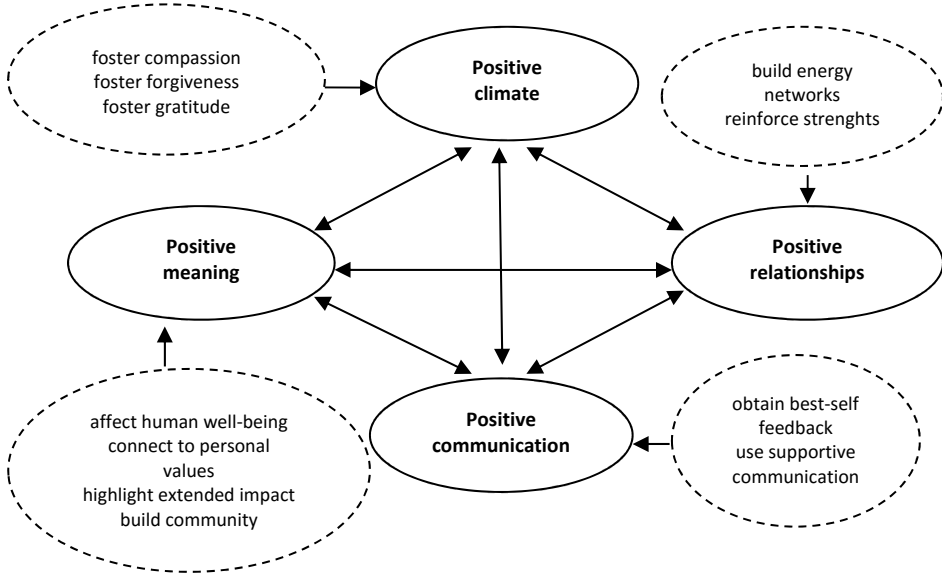


Figure 1. Four leadership strategies that enable positive deviance

Source: Cameron (2008, p. 14).

Impact of Positive Leadership on Corporate Entrepreneurship

For some scholars the essence of corporate entrepreneurship and a source of entrepreneurial behaviour at organisational level is entrepreneurial orientation. It is an ideology that generate strategic criteria of importance, desirability, feasibility, legitimacy, relevance of opportunities and actions. Moreover it channels and distributes decision making into a specific set of procedures and practices. Finally, it provides the institutional strategic framework for understanding the situations that motivate action and interpret meaning. Some researchers operationalized the behaviour of entrepreneurial firms as consisting of product-market innovation, proactiveness of decision making, and risk-taking. They maintained that the level of entrepreneurship presented by a firm was the aggregate total of these three sub-dimensions: “the extent to which top managers are inclined to take business-related risks (the risk-taking dimension), to favour change and innovation in order to obtain a competitive advantage for their firm (the innovative dimension), and to compete aggressively with other firms (the proactive dimension)” (Covin & Slevin, 1988, p. 218). Entrepreneurial orientation has been later operationalized as five-dimensional construct (Lumpkin & Dess, 1996) or three-dimensional one (Kreiser, Marino & Weaver, 2002) and a prerequisite and critical factor of corporate entrepreneurship. In the project corporate entrepreneurship will be conceptualized as a construct which dimensions work in configuration with positive behaviours in the process of mod-

eration between high performance factors and the actual performance of the organisation.

The question on supporting corporate entrepreneurship by applying positive leadership is an important one, as researchers and business practitioners are looking for new ways of supporting innovativeness, proactiveness and willingness to take risk. It should be noted here, that positive leadership and corporate entrepreneurship are concepts at different levels of analysis. Positive leadership is typically analyzed at individual level and corporate entrepreneurship at organisational level. Therefore, supporting entrepreneurial orientation by creating positive leadership should be directed at institutional solutions: recruiting and training positive leaders. Moreover, the effects of such processes might not be homogenous within the entire organisation – the level of corporate entrepreneurship might differ according to the degree of ‘positivity’ of local leader.

The impact of psychological capital on entrepreneurship is perhaps the most widely investigated among approaches to positive leadership. For example Hayek (2012) states that while the constructs that form the psychological capital construct, hope, resilience, optimism, and self-efficacy are all revered characteristics and highly associated with entrepreneurs, the consequences of these being applied to situations where the individual actually has a misplaced sense of control may have dire consequences. In broader sense, psychological capital might contribute to corporate entrepreneurship in a number of ways. Self-efficacy allows pursuing risky and difficult business opportunities, hope and optimism allow to interpret strategic events as opportunities instead of threats (Bratnicki, 2006) and resilience allows to continue to further develop ventures in the environment of pressure and crisis. Therefore, I propose that:

Proposition 1: Psychological capital of managers contributes to corporate entrepreneurship.

There is no empirical evidence on the impact of authentic leadership on corporate entrepreneurship. However, this kind of contribution can be assumed, taking into consideration the components of authentic leadership. The assumed influence especially concerns the followers of authentic leader and the component most likely to be of importance here is balanced processing. It allows employees to express their opinions, which, in turn allows for bottom-up creation of new ventures. Moreover, Hmieleski, Cole and Baron (2012) in their study of top management teams of new ventures and their impact on performance state that authentic leadership may be particularly beneficial when shared among team members. Therefore, I propose that:

Proposition 2: Authentic leadership of managers contributes to corporate entrepreneurship.

Similarly, there is no evidence on relationship between fundamental state of leadership and corporate entrepreneurship. Also in this case components of the concept might be relevant for corporate entrepreneurship, especially other focus and external openness. The first of them introduces the atmosphere of respect and understanding that is necessary for the development of new ventures. External openness is in turn important for receiving information and inspiration for new ventures. It constitutes a phenomenon by some called entrepreneurial alertness. Therefore:

Proposition 3: Fundamental state of leadership of managers contributes to corporate entrepreneurship.

Finally, positive deviance is expected to contribute to corporate entrepreneurship. I argue that the entire concept of positive deviance is entrepreneurial, as it means doing something in a different, extraordinary and new way. The same principles lie at the core of entrepreneurship, including corporate entrepreneurship. Unfortunately, there is no empirical evidence on the support for corporate entrepreneurship from positive deviance. The only partial piece of evidence comes from Nam, Parboteeah, Cullen and Johnson (2014) who argue that innovation is an outcome of positive deviance. I therefore propose that:

Proposition 4: Positive deviance of managers contributes to corporate entrepreneurship.

CONCLUSIONS

The field of positive leadership and its relations with phenomena at organisational level is largely under-researched. I argue that this line of study has a huge potential and might be fruitful in explaining firm level entrepreneurship at scientific level and supporting it at practical level. So far, the field is characterized by high degree of complexity and disorder. What is critical in this line of research, is the configuration of positive leadership approaches and its combined impact on corporate entrepreneurship. There is some empirical evidence that positive leadership types work in synergy and reinforce each other. For instance Jensen and Luthans (2006) argue that psychological capital supports entrepreneurs' authentic leadership. Therefore relationships in this area should be investigated comprehensively, with regard to other approaches.

There is an important question on the level of analysis of impact of positive leadership on corporate entrepreneurship. It might be studies on individual level, where positive behaviours of the leader contribute to his entrepreneurial spirit, which in turn mobilizes the followers to develop new ventures. On the other hand, positive leadership taken to organisational level might directly contribute to entrepreneurial orientation of the whole organisation. Important argument for the second approach is delivered by Memili, Welsh and Luthans (2013, p. 1291) who introduce the concept of organisational psychological capital (OPC) arguing that "group-level collective PsyCap can develop through interactive and coordinative dynamics and leadership in a firm that can foster desired behaviours and performance outcomes".

The main weakness of the study is the lack of literature in the field of positive leadership. The paper is therefore based on available literature sources that might not be fully exhaustive. The main contribution of the paper is to draw attention to the models of leadership that might be critical for entrepreneurship inside organisations. That question, however, goes beyond that and also considers individual entrepreneurship and leadership skills necessary to start up and develop an enterprise.

REFERENCES

- Bass, B. (2000). The future of leadership in learning organizations. *Journal of Leadership Studies*, 7(3), 18–40.
- Bass, B.M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bratnicki, M. (2006). *The dialectics of organizational entrepreneurship*. Katowice: University of Economics in Katowice.
- Burns, J.M. (1978). *Leadership*. New York: Harper & Row.
- Cameron, K.S. (2008). *Positive leadership. Strategies for extraordinary performance*. San Francisco: Berrett Koehler.
- Cameron, K.S., Dutton, J.E., & Quinn, R.E. (2003). *Positive organizational scholarship. Foundations of a new discipline*. San Francisco: Berrett-Koehler Publishers, Inc.
- Cameron, K.S., & Spreitzer, G.M. (Eds.) (2012). *The Oxford handbook of positive organizational scholarship*. Oxford/New York: Oxford University Press.
- Covin, J.G., & Slevin, D.P. (1988). The influence of organization structure on the utility of an entrepreneurial top management style. *Journal of Management Studies*, 25(3), 217-234.
- Greenleaf, R. (1977). *Servant-leadership: A journey into the nature of legitimate power and greatness*. New York: Paulist Press.
- Harter, S. (2002). Authenticity. In C.R. Snyder & S.J. Lopez (Eds.), *Handbook of positive psychology* (pp. 382-394). Oxford, UK: Oxford University Press.
- Hayek, M. (2012). Control beliefs and positive psychological capital: Can nascent entrepreneurs discriminate between what can and cannot be controlled? *Journal of Management Research*, 12(1), 3-13.
- Hmieleski, K.M., Cole, M.S., & Baron, R.A. (2012). Shared authentic leadership and new venture performance. *Journal of Management*, 38(5), 1476-1499.
- Jensen, S.M., & Luthans, F. (2006). Relationship between entrepreneurs' psychological capital and their authentic leadership. *Journal of Managerial Issues*, 18(2), 254–273.
- Kreiser, P.M., Marino L., & Weaver, K.M. (2002). Assessing the psychometric properties of the entrepreneurial orientation scale: A multi-country analysis. *Entrepreneurship Theory and Practice*, 26(4), 71-94.
- Levie, J. (2016). *What drives entrepreneurship inside organisations?* Paper presented at 2016 ENTRE Conference in Kraków.
- Lumpkin, G.T., & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Journal*, 21(1), 135-172.
- Luthans, F., & Avolio, B. (2003). Authentic leadership development. In K.S. Cameron, J.E. Dutton & R.E. Quinn (Eds.), *Positive organizational Scholarship. Foundations of a new discipline* (pp. 241-258). San Francisco: Berrett-Koehler Publishers.
- Luthans, F., Avolio, B.J., Avey, J.B., & Norman, S.M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541–572.
- Luthans, F., & Youssef, C.M. (2004). Human, social, and now positive psychological capital management. *Organizational Dynamics*, 33, 143–160.
- Luthans, F., Youssef, C.M., & Avolio, B.J. (2007). *Psychological capital*. New York: Oxford University Press.

- Memili, E., Welsh, D.H.B., & Luthans, F. (2013). Going beyond research on goal setting: A proposed role of organizational psychological capital of family firms. *Entrepreneurship Theory and Practice*, 37, 1289-1295.
- Nam, D., Parboteeah, K.P., Cullen, J.B., & Johnson, J.L. (2014). Cross-national differences in firms undertaking innovation initiatives: An application of institutional anomie theory. *Journal of International Management*, 20(2), 91-106.
- Piccolo, R.F., & Colquitt, J.A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, 49(2), 327-340.
- Quinn, R.E. (2005). Moments of greatness: Entering the fundamental state of leadership. *Harvard Business Review*, July-August, 75-83.
- Quinn, R.E., & Anding, J.M. (2005). An Interview with Robert E. Quinn Entering the fundamental state of leadership: Reflections on the path to transformational teaching. *Academy of Management Learning & Education*, 4(4), 487-495.
- Spreitzer, G.M., & Sonenschein, S. (2004). Toward the construct definition of positive deviance. *American Behavioral Scientist*, 47, 828-847.
- Tuhus-Dubrow, R. (2009). The Power of Positive Deviants: A promising new tactic for changing communities from the inside. *Boston Globe*. November 29.
- Walumbwa, F.O., Avolio, B.J., Gardner, W.L., Wernsing, T.S., & Peterson, S.J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34, 89-126.

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The Potential of Business Environment Institutions and the Support for the Development of Small and Medium-sized Enterprises

Renata Lisowska

ABSTRACT

Objective: The paper aims to assess the use of the potential of business environment institutions to support SMEs in the light of the author's own research.

Research Design & Methods: The author's study was carried out in 2012-2014 in two stages: quantitative research (a survey on the sample of 590 SMEs) conducted with the use of the PAPI and CAWI methods based on a survey questionnaire and qualitative research conducted among 10 representatives of business environment institutions with the use of in-depth interviews (IDI) based on a questionnaire with a standard list of information sought.

Findings: The study results suggest that the role of business environment institutions in the development of small and medium-sized enterprises in the present conditions is small. This is a result of, on the one hand, little interest of SMEs in the support offered by these institutions, and, on the other hand, the fact that frequently the services offered do not meet the needs of enterprises.

Implications & Recommendations: To improve the situation, on the part of business environment institutions, it is necessary to update information on the scope of cooperation, undertake extensive promotional activities, adjust the offer to the needs of enterprises and expand cooperation, especially by providing financial support for enterprises.

Contribution & Value Added: The study can be used for in-depth analyses of support for the SMEs provided by business environment institutions. It can be also useful for decision-makers responsible for creating development policies.

Article type: research paper

Keywords: SMEs; business environment institutions; support for SMEs; potential of business institutions; entrepreneurship

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INTRODUCTION

The development of small and medium-sized enterprises is affected by many internal factors (related to the person of the entrepreneur and the characteristics of the enterprise), as well as external ones arising from the environment, of which business environment institutions constitute an essential part. They are especially important for support of small and medium-sized enterprises (SMEs) in the financial, advisory, information, training, organisational and legal areas. This support is regarded as a factor facilitating and stimulating their development.

Business environment is part of the economy, filling the gap between market mechanisms and actions of public administration, providing mainly service functions through a network of institutional infrastructure, enabling businesses growth and development (Bąkowski & Mażewska, 2012). Business environment includes (Dominiak, 2013):

- institutional infrastructure – including business environment institutions;
- business services – advisory, training, information and financial services;
- innovative environment – a set of innovation centres and R&D institutions along with their internal and external links;
- climate favourable to economic activity.

Business environment institutions are part of institutional infrastructure and play an important role in the development of small and medium-sized enterprises through the provision of services for start-ups as well as enterprises already operating in the market. Enterprises that intend to introduce innovations and apply new technologies also need specialised support, which can be provided by the innovative environment. Undoubtedly, commercial enterprises providing different kinds of specialised business services as well as the so-called climate favourable to initiate and develop economic activity also play an important role in supporting SMEs.

The existing analysis of business environment institutions supporting SMEs in Poland evaluate highly their potential due to the significant number of these entities in the country, as well as a to a specialised range of support they offer. However, as indicated by numerous studies, efficiency of operation and the range of services offered by these institutions is unsatisfactory.

This paper aims to assess the use of the potential of business environment institutions to support SMEs in the light of the author's own research conducted in 2012-2014 among owners and co-owners of small and medium-sized enterprises and representatives of business environment institutions in Poland. In order to achieve the objective set, two types of research were carried out: quantitative research conducted with the use of the PAPI (Paper And Pen Personal Interview) and CAWI (Computer Assisted Web Interview) methods based on a survey questionnaire and qualitative research conducted with the use of in-depth interviews (IDI) based on a questionnaire with a standard list of information sought.

The first part of the paper, based on review of literature, presents the characteristics of business environment institutions in Poland in terms of support offered to business entities. The second part of the paper presents the methodology of the author's own research conducted among SMEs and selected business environment institutions as well

as the research results that allow to assess the use of the potential of business environment institutions to support small and medium-sized enterprises. The findings are presented in the form of discussion. The paper ends with conclusions and recommendations for the support of small and medium-sized enterprises in Poland.

LITERATURE REVIEW

Characteristics of Business Environment Institutions in Poland

Small and medium-sized enterprises face many barriers in their development, which can to a large extent reduce the quality and availability of support derived from the environment (Matejun, 2015). This support is provided through the interaction of SMEs with the institutional sphere in the form of specific policies and instruments. The policy supporting small and medium enterprises is focused on the existing entities, while the policy to support entrepreneurship concentrates mainly on potential entrepreneurs and entrepreneurs in the course of implementing a business idea (North & Smallbone, 2006; Stevenson & Lundström, 2007; Dyer & Ross, 2007; Niska & Vesala, 2013). Each of these policies requires other areas and instruments of support. In the case of SME support policies, the following elements are most frequently mentioned: financing, consulting, R&D&I, education, and development of infrastructure (De, 2000; Gancarczyk, 2010), while in the case of the policy supporting entrepreneurship, the most important elements include: promotion of entrepreneurial attitudes, education, support for the creation of new businesses and financing start-ups (Lundström & Stevenson, 2005). The forms of support offered reflect certain groups of assistance solutions which include instruments of support usually in the form of commercial and non-commercial services provided by business environment institutions (Niska & Vesala, 2013; Matejun, 2015).

The literature presents numerous terms that describe institutions supporting business entities, of which the most common are: support institutions, business environment institutions, support infrastructure, non-profit business environment, innovation and business centres, innovation and technology transfer infrastructure. These differ in relation to the type of institutions that belong to the so-called institutional business environment.

The entities that operate within the framework of institutional infrastructure may be divided into two groups (European Commission, 1996, as cited in Fabińska, 2013, pp. 72-73):

1. Resource centres – entities that possess an appropriate potential comprising material and non-material resources (e.g.: equipment, knowledge, financial resources) that can be made available to enterprises in the form of services or on the basis of cooperative relations. Their competences allow to meet specific needs reported by enterprises (in terms of quality, time and costs). Typical entities in this category include: R&D units, operating at universities and in large companies, institutions providing financial support (e.g. venture capital funds, business angels).
2. Interface organisations – entities that are catalysts of interactions between institutions offering support in the form of specific competences (e.g. technological, financial, etc.) and enterprises that require this support. Typical entities in this category include: technology transfer centres, regional development agencies, business

chambers and other organisations for entrepreneurs, technological parks and incubators.

According to the Polish Business and Innovation Centres Association (Stowarzyszenie Organizatorów Ośrodków Innowacji i Przedsiębiorczości w Polsce, SOOIPP), business environment institutions are referred to as innovation and business centres and are divided into three categories (Table 1) (Mażewska, 2015, p. 8):

1. Business centres are institutions that deal with widely understood business promotion and business incubation aimed at creating business entities and jobs, as well as providing support services to SMEs and stimulating the development of peripheral areas or areas suffering from a structural crisis.
2. Innovation centres are entities engaged in widely understood business promotion and incubation, channelling their activities towards the development of innovative business entities.
3. Non-bank financial institutions are institutions involved in the distribution of repayable and non-repayable financial instruments financed by funds provided by the European Union and derived from private sources.

Table 1. Classification of innovation and business centres in Poland

Innovation and business centres		
Business centres:	Innovation centres:	Non-bank financial institutions:
1. Training and consulting centres; 2. Entrepreneurship centres; 3. Business centre; 4. Pre-incubators; 5. Business incubators;	1. Technology, scientific, scientific and technology, industrial and technology parks, techno-parks; 2. Technology incubators; 3. Technology transfer centre; 4. Academic business incubators; 5. Innovation centres.	1. Regional and local loan funds; 2. Credit guarantee funds; 3. Seed capital funds; 4. Business angels network.

Source: Mażewska (2015, p. 8).

These institutions offer support in the area of (Filipiak & Ruszała, 2009, p. 42):

- improving the management of the enterprise and making better use of its resources,
- establishing contacts with foreign partners,
- providing business information and consulting services,
- establishing cooperative relations with large companies,
- granting or helping to obtain financial support,
- encouraging entrepreneurs to organise themselves into producer or distribution groups and creating a system of cooperation and subcontracting,
- improving competitiveness through absorption and implementation of new technologies.

R&D units, employer organisations, special economic zones, clusters, networks supporting entrepreneurship and innovation, as well commercial organisations providing training, consulting and financial services also play an important role in supporting SMEs.

Support for small and medium-sized enterprises is delivered with the use of various forms and instruments. Forms of support consist of specific groups of support solutions

characterised by certain similarities in their impact on development processes of small and medium-sized enterprises, e.g.: non-repayable financial assistance, capital support, consulting and training assistance. Support instruments are specific solutions possible to acquire and use in the development of small and medium-sized enterprises, e.g.: in the framework of non-repayable financial assistance – subsidies, grants from public funds (Matejun, 2015, p. 50). In the area of business start-ups, the following financial instruments are particularly important: grants, loans, guarantees, EU funds, venture capital, business angels, tax incentives and information instruments such as information and consulting services, training in the area of entrepreneurship and starting a business. Institutional support in the form of business incubators, as well as industrial and technology parks, is also important (Gancarczyk, 2010).

The potential of business environment institutions is manifested in the range of services offered and their availability. According to the study conducted in 2014 by SOOIPP, Poland had 681 business and innovation centres, which included (Mażewska, 2015, p. 11):

- 42 technology parks,
- 24 technology incubators,
- 42 technology transfer centres,
- 47 innovation centres,
- 103 capital funds,
- 81 local and regional loan funds,
- 58 credit guarantee funds,
- 7 networks of business angels,
- 207 consulting and training centres,
- 46 business incubators.

The data presented highlights a significant number of these centres in Poland and different characteristics of their operations. With regard to the territorial system, business environment institutions operate throughout the country. In terms of voivodeships (regions), the largest number of the centres can be found in the Mazowieckie, Śląskie and Wielkopolskie Voivodeships, while the smallest number in the Podlaskie, Lubuskie and Opolskie Voivodeships. The greatest number of these centres can be observed in the regions with a high economic potential and a strong market, while fewer are located in the regions weaker in terms of socio-economic development, which build the infrastructure to support innovative projects at a very slow rate (Mażewska, 2015, pp. 13-14).

Services offered by business environment institutions can be often acquired by entrepreneurs on preferential terms or for free as the majority of these services are financed by the EU funds and/or offered by non-profit institutions. Despite such opportunities, a small number of small and medium-sized businesses benefit from this support. The reason for this state of affairs, as confirmed by numerous studies (Wach, 2008; Gancarczyk, 2010; Lisowska, 2013; Comarch, 2014), is little or no knowledge among entrepreneurs about the services offered by business environment institutions, as well as their reluctance to cooperate and a negative attitude towards the support offered. This means that SMEs do not fully exploit the potential of these institutions to support their development and raise the level of their competitiveness. Previously conducted studies have also confirmed that a small number of SMEs which use the so-called business services

have been supported primarily by means of financial and advisory assistance, assessed by the respondents as adequate to allow the further development of their companies (Gancarczyk, 2010; Lisowska, 2013; Matejun, 2015).

MATERIAL AND METHODS

The research aims to assess the use of the potential of business environment institutions to support SMEs in the light of the author's own research conducted between 2012-2014 among owners and co-owners of small and medium-sized enterprises and representatives of business environment institutions in Poland. In order to achieve the objective set, the following research hypothesis was adopted: the potential of business environment institutions is not used fully by small and medium-sized enterprises due to little interest on the part of these entities in the support offered and the mismatch between the offer of these institutions and the needs of SMEs.

In order to achieve the objective set and verify the research hypothesis, two research instruments were prepared: a survey questionnaire and an in-depth interview scenario. The survey was conducted with the use of the PAPI and CAWI methods, while the qualitative research was conducted with the use of in-depth interviews (IDI) based on a questionnaire with a standard list of information sought.

The author's study was carried out in two stages. The first stage involved the quantitative research – a survey conducted on the sample of 590 small and medium-sized enterprises from the private sector. The national official register of business entities (REGON) of the Central Statistical Office constituted the sampling frame. The so-called legal unit (corresponding approximately to an enterprise with all its subsidiaries) was adopted as the sampling unit (the statistical unit in the study). Then a sample of 6,000 entities was randomly selected. Stratified sampling was used according to the following criteria: the number of persons employed (3 groups: micro-enterprises: 0–9 employees; small enterprises: 10–49 employees; medium-sized enterprises: 50–249 employees) and the voivodeship (region) based on its office location. The sample size was determined with a large excess due to the applied research technique. The study was conducted with the use of a questionnaire sent by mail and e-mail. It was then supplemented by a direct interview survey, due to the low return on questionnaires sent.

The main research limitation was the sample size i.e. the number of received, completed questionnaires, was 590 (9.8% return rate). The conducted quantitative research, on the one hand, made it possible to reach more business entities and ensure the degree of anonymity of the respondents (it was often a prerequisite for conducting the survey). On the other hand, there was a high degree of difficulty associated with completing the survey, e.g.: partially filled questionnaires and problems with the interpretation of some questions.

In order to assess the representativeness of the realised sample, a comparison of its structure with the structure of the population was carried out based on the following characteristics: the company size (micro, small and medium-sized enterprises) and the location (the voivodeship according to its office address). The comparison results allowed to regard the analysed sample as representative of the general population.

Micro-enterprises were the dominant group in the study (55.8%), while small enterprises amounted to 26.8% and medium-sized enterprises to 17.4%. The majority of the

surveyed enterprises were involved in trade and services (approx. 70%), and only less than 30% in manufacturing. The regional, local and national market was their main area of activity, only one in ten companies expanded its business to the international market. Mostly manufacturing enterprises operated in international markets (Lisowska, 2013).

The second stage of the study comprised qualitative research carried out by means of the individual in-depth interview (IDI) conducted among 10 respondents that were representatives of business environment institutions (presidents, directors, managers). The selection of the sample was purposeful as it included the institutions that had a diverse support offer for SMEs and their representatives expressed willingness to participate in the study. The full names of the organisations were not disclosed to preserve the anonymity of the interviewees, only the type of institution was indicated. The surveyed institutions included: a regional development agency, a technology transfer centre, an academic business incubator, a loan fund, a guarantee fund, a technology park, a business incubator, a regional chamber of commerce, an industrial and technological park, and an entrepreneur service centre.

RESULTS AND DISCUSSION

Only 31.7% of the surveyed SMEs cooperated with business environment institutions. Small and medium-sized enterprises dominated among cooperating enterprises (Figure 1). The cooperation took place both in a systematic and sporadic manner. However, systematic cooperation dominated, mainly in the form of consultation centres/ entrepreneur service centres and business centres. Sporadic cooperation took place primarily in the case of technology transfer centres. Such a distribution of the responses shows an untapped potential of business environment institutions that small and medium-sized enterprises could use to support their development.

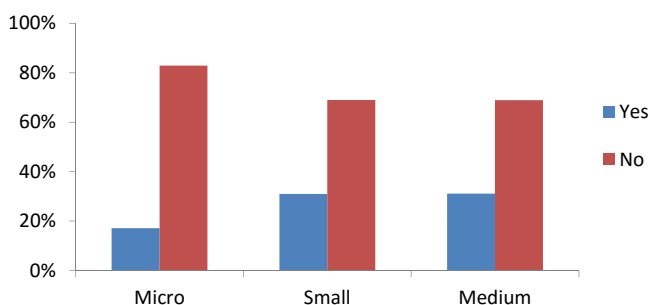


Figure 1. Cooperation of enterprises with business environment institutions

Source: own calculations based on the author's research results ($n = 590$).

The enterprises that cooperated with business environment institutions also indicated what kind of institutions they were. The respondents' answers varied depending on the size of the company, which is also confirmed by the Kruskal-Wallis¹ test (more on the

¹ The Kruskal-Wallis test allows to compare more than two independent populations. It is used when the dependent variable is quantitative, but does not meet the assumptions related to the normal distribution or is expressed on an ordinal scale.

subject of the test, among others, in: Urdan, 2010; Kufs, 2011), its results and probability value ($p < 0.05$) (Table 2).

Table 2. Kruskal-Wallis statistic (H) and the level of probability value (p) of variables that determine the type of business environment institutions that the enterprise cooperated with

Type of business environment institutions	The Kruskal-Wallis statistic (H)	Probability value (p)
Training and consulting centres	15.93	0.00
Technology transfer centres	17.82	0.00
Technology parks	8.14	0.04
Networks of business angels	8.09	0.04
Loan and guarantee funds	11.29	0.01
Business incubators	7.30	0.06
Consultation centres/entrepreneur service centres	10.37	0.01
Business centres	15.53	0.00

Source: own calculations based on the author's research results ($n = 187$).

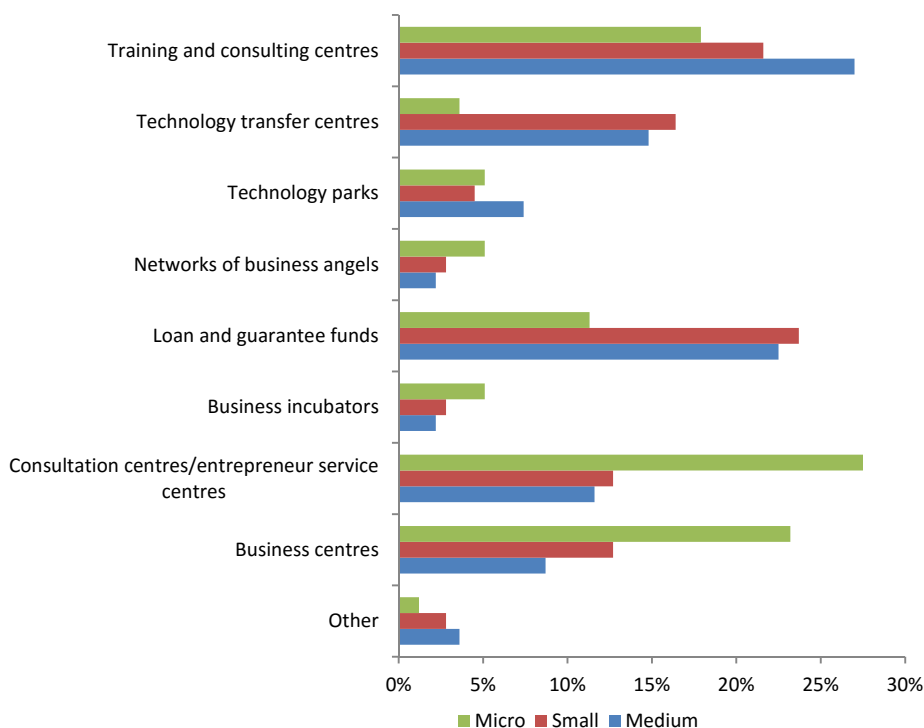


Figure 2. The type of business environment institutions that the company cooperated with*

* Calculations for the business environment institution indicated first by the respondent.

Source: own calculations based on the author's research results ($n = 187$).

In the case of the micro-enterprises, the most popular were consultation centres/entrepreneur service centres (27.5% of the responses), as well as business centres

(23.2% of the responses), in the case of small enterprises – loan and guarantee funds (23.7% of the responses), as well as training and consulting centres (21.6% of the responses). The medium-sized enterprises indicated in this respect technology transfer centres (27.0% of the responses), as well as loan and guarantee funds (22.5% of the responses) (Figure 2). Such a distribution of response indicates diverse needs in terms of support. Micro-enterprises usually need general information about running a business and opportunities to raise funds, while small and medium-sized enterprises require specialised services, e.g. in the area of improving innovativeness, technology transfer, etc.

The surveyed entrepreneurs were least likely to cooperate with business incubators and networks of business angels, which may indicate under-utilisation of the full potential of these institutions in the support of SMEs that are at early stages of development.

The enterprises that cooperated with business environment institutions also indicated the effects of the said cooperation. The respondents' answers varied depending on the size of the company, which was also confirmed by the Kruskal-Wallis test, its results and probability value ($p < 0.05$) (Table 3 and Figure 3).

Table 3. Kruskal-Wallis statistic (H) and the level of probability value (p) of variables that determine effects of the enterprise's effect with business environment institutions

Cooperation effects	The Kruskal-Wallis statistic (H)	Probability value (p)
Establishing cooperation with other enterprises	13.05	0.00
Obtaining assistance in solving a problem (consulting)	9.19	0.03
Purchase of new technologies	11.37	0.01
Increasing export opportunities	5.11	0.14
Finding new customers and/or markets	4.17	0.19
Possibility of human resources development	17.76	0.00
Joint projects and ventures	6.02	0.09
Ability to implement innovative solutions	13.15	0.00
Use of the EU funds	15.96	0.00
Access to expertise	12.27	0.01
Acquisition of financial resources	8.51	0.04

Source: own calculations based on the author's research results ($n = 187$).

In the case of the micro-enterprises, the main effects of cooperation included: obtaining assistance in solving a problem (consulting) (17.5% of the responses), access to expertise (15.9% of the responses), raising funds (13.7% of the responses), as well as the use of the EU funds (11.2% of the responses). Small enterprises pointed to raising funds (20.1% of the responses), access to expertise (14.7% of the responses), establishing cooperation with other enterprises (12.5% of the responses) and the possibility of the development of human resources (11.4% of the responses). The medium-sized enterprises indicated in this respect: the purchase of new technologies (17.9% of the responses), the ability to implement innovative solutions (16.5% of the responses), raising funds (12.7% of the responses), as well as the use of the EU funds (11.3% of the responses) (Figure 3).

The enterprises that did not cooperate with business environment institutions indicated the reasons for the lack of cooperation. The respondents' answers varied depending on the size of the company, which was also confirmed by the Kruskal-Wallis test. Its

results and probability value ($p < 0.05$) highlighted the diversity of the majority of the variables examined (Table 4).

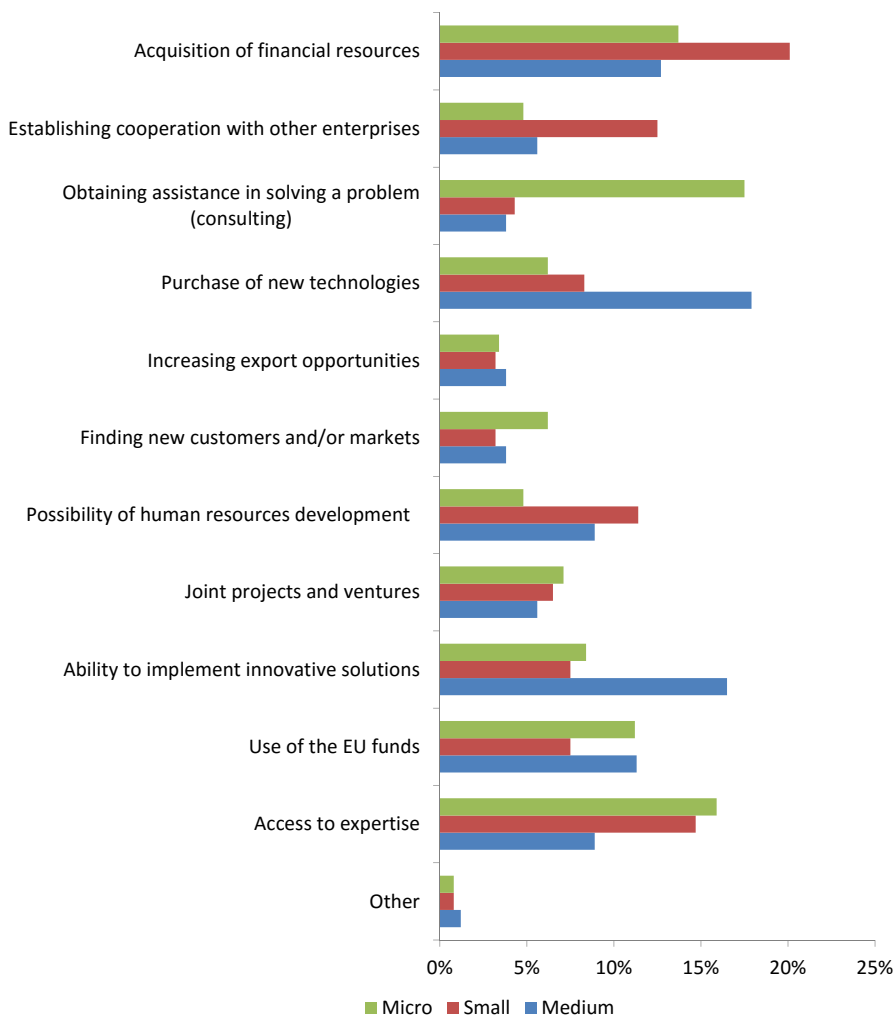


Figure 3. Effects of the enterprise's cooperation with business environment institutions*

* Calculations for the effect of cooperation with business environment institutions indicated first by the respondent.

Source: own calculations based on the author's research results ($n = 187$).

The micro-enterprises pointed to the following reasons: a lack of measurable benefits derived from such cooperation (25.1% of the responses), no need to use such services (19.5% of the responses) and a lack of information about services provided by business environment institutions (16.2% of the responses). The small enterprises pointed to no need to use such services (18.6% of the responses), a lack of measurable benefits derived from cooperation (14.8% of the responses) and a lack of an offer suitable to the

needs of the enterprise (12.1% of the responses). The medium-sized enterprises indicated the unsatisfactory quality of services offered (18.3% of the responses), a lack of information about services provided by business environment institutions (14.4% of the responses) and no need to use such services (12.1% of the responses) (Figure 4).

Table 4. Kruskal-Wallis statistic (H) and the level of probability value (p) of variables that determine the reasons for lack of cooperation between the enterprise and business environment institutions

Reasons for lack of cooperation	The Kruskal-Wallis statistic (H)	Probability value (p)
The offer unsuitable to the enterprise's needs	14.30	0.00
Lengthy procedures associated with initiating and maintaining cooperation	10.96	0.01
Lack of measurable cooperation benefits	17.44	0.00
Too few/no such institutions in the region	7.08	0.07
No such services available	5.27	0.15
Unsatisfactory quality of the offer	9.70	0.02
No need to use such services	10.12	0.02
Limited possibilities to adapt the solutions offered to the enterprise's needs	8.83	0.04
Lack of information about BEIs' services	13.67	0.00
Too high costs of cooperation	4.89	0.18

Source: own calculations based on the author's research results ($n = 403$).

According to the respondents, the problem with cooperation with business environment institutions lies in the fact that in most cases it is initiated by enterprises which come to these institutions with a specific need. There is, however, a lack of action in the opposite direction, i.e. initiating cooperation by business environment institutions. A large percentage of the enterprises that do not feel tangible benefits of cooperation and do not have the need to use the services offered by business environment institutions is also worth noting. This fact indicates the existence of an awareness barrier among entrepreneurs, i.e.: they do not have confidence in these institutions, do not appreciate their activity, have a low opinion of the manner these services are provided, as well as of the competence of the personnel. The responses obtained suggest that the entrepreneurs expect other directions in terms of support for business activity than are currently offered by these institutions.

The surveyed enterprises also rarely benefited from public aid (only 24.9%). Small and medium-sized enterprises dominated among the beneficiaries (Figure 5). The reasons for this situation should be sought, on the one hand, in insufficient resources to obtain such assistance, and on the other hand, in a lack of current information about the forms of support offered.

The enterprises that benefited from public aid indicated what kind of assistance they received. The respondents' answers varied depending on the size of the company (Figure 6.), which was also confirmed in the case of most of the analysed variables by the Kruskal-Wallis test, its results and probability value ($p < 0.05$) (Table 5).

The micro-enterprises mainly made use of preferential loans and credits (28.0% of the responses), reduced contributions (e.: NII contributions) (26.3% of the responses),

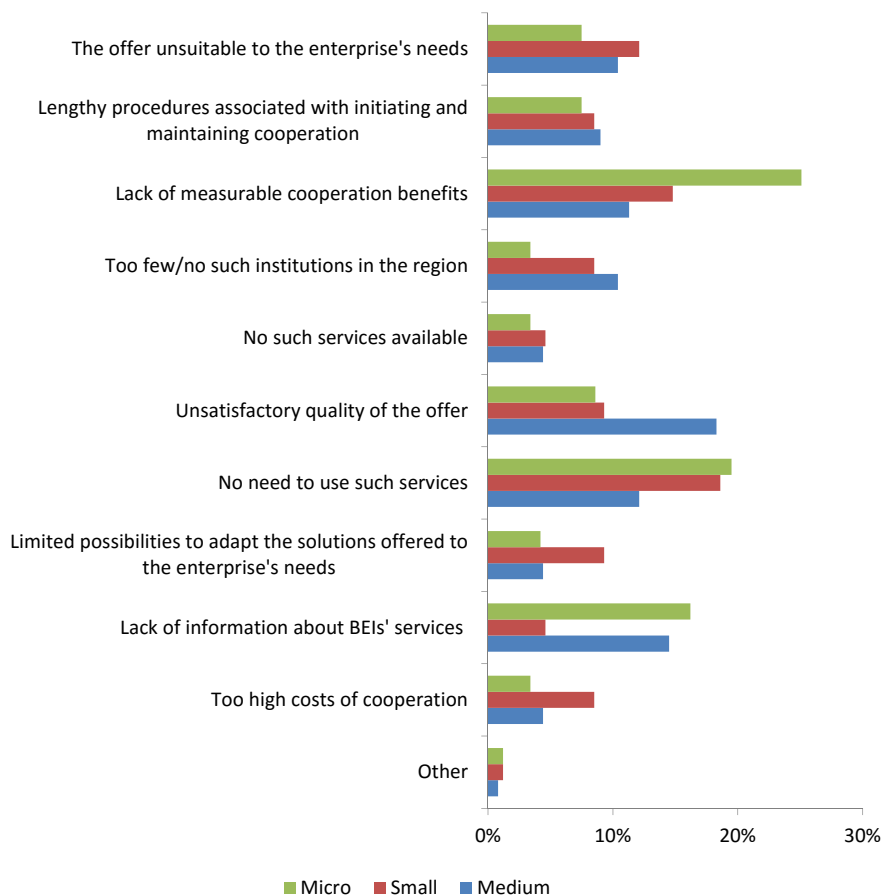


Figure 4. Reasons for lack of cooperation with business environment institutions

** Calculations for the reasons for the lack of cooperation with business environment institutions indicated first by the respondent.*

Source: own calculations based on the author's research results (n = 403).

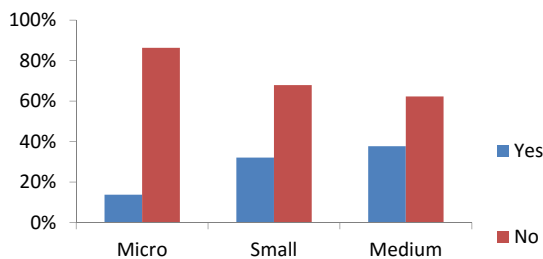


Figure 5. Use of public aid by SMEs

Source: own calculations based on the author's research results (n = 590).

small grants from the EU funds (24.1% of the responses), as well as loan and credit guarantees (21.6% of the responses), while medium-sized enterprises took advantage of tax reductions and exemptions (26.9% of the responses), and the EU grants (23.7% of the responses) (Figure 6). Other forms of public aid that the enterprises used comprised consulting services, internships and trainings. Such a distribution of the responses shows greater willingness of the surveyed enterprises to use public aid in the form of safe financial instruments such as preferential loans offered by support institutions.

Table 5. Kruskal-Wallis statistic (H) and the level of probability value (p) of variables that determine forms of public aid that the enterprise used

Reasons for lack of cooperation	The Kruskal-Wallis statistic (H)	Probability value (p)
Loan and credit guarantees	17.94	0.00
Reduced contributions (e.g.: National Insurance Institution contributions)	20.42	0.00
Subsidies from the state budget	6.99	0.07
Tax reductions and exemptions	10.92	0.01
Preferential loans and credits	15.98	0.00
Grants from the European Union	9.06	0.03

Source: own calculations based on the author's research results ($n = 147$).

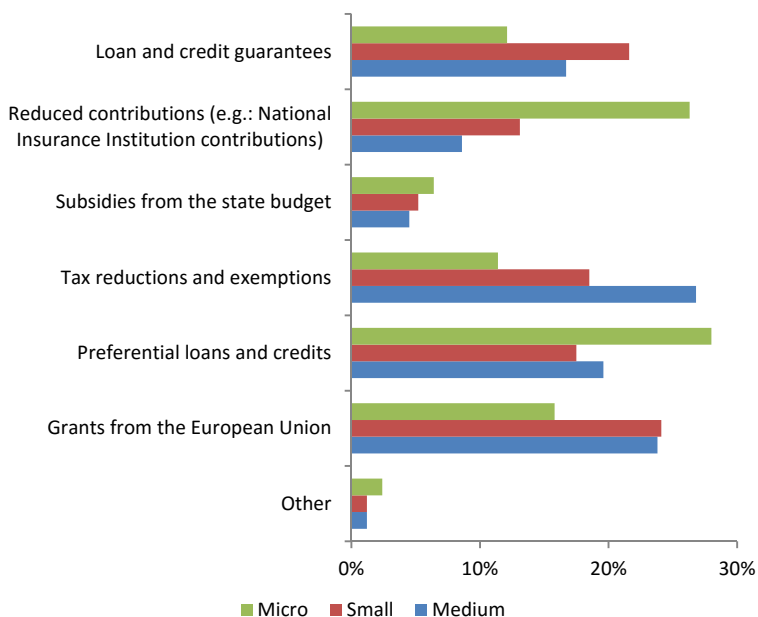


Figure 6. Forms of public aid the enterprise used

* Calculations for the used form of public aid indicated first by the respondent.

Source: own calculations based on the author's research results ($n = 147$).

The opinions of representatives of business environment institutions (BEIs) on this cooperation, collected during qualitative research, complemented the study on the sup-

port of SMEs provided by these institutions.

Table 6. Activities undertaken by BEIs to establish cooperation with entrepreneurs

Type of institution surveyed	Offer for SMEs	Activities undertaken by BEIs to establish cooperation
Regional development agency	<ul style="list-style-type: none"> - information, consulting and training services on establishing and running a business, - preparation of grant applications, - loans to start and develop business activity, - regional consultation centre 	"Information meetings about the possibilities of cooperation with entrepreneurs in the form of seminars and conferences, the creation of a website containing offers of cooperation, organising trade missions, preparation of a business guide".
Technology transfer centre	<ul style="list-style-type: none"> - providing a database of technological offers, - consulting and training services in the field of commercialisation of advanced technologies and implementation of innovation, - commercialisation of technologies, - preparation of innovation evaluations, - establishing science and business cooperation and providing support for R&D projects, - preparation of technological offers for industry 	"Active participation in actions that promote the range of services offered: developing a website, organising seminars and conferences with the participation of entrepreneurs, expanding cooperation offers to include services that respond to the needs of entrepreneurs, establishing cooperation between science and business".
Academic business incubator	<ul style="list-style-type: none"> - services for students, alumni, faculty members in the field of: start-up support, infrastructural support of economic activity and business support; - providing practical knowledge and examples of good practices in the area of establishing and running a business 	"Updating the offer and adapting it to the needs of newly-started businesses, preparing a newsletter, promotion in the media (Innovation Portal) and through collaborating institutions, organising meetings with business angels for presenting new business ideas".
Loan fund	<ul style="list-style-type: none"> - granting low-interest (non-commercial) loans for establishing and developing economic activity (micro-financing, seed capital, the JEREMIE initiative) 	"Participation in seminars and conferences, updating the website, reaching out directly with an offer of cooperation to enterprises. Cutting red tape and simplifying procedures for obtaining support to a minimum".
Guarantee fund	<ul style="list-style-type: none"> - providing guarantees for loans and credits to small and medium-sized enterprises 	"Taking measures to promote the activities of the fund, updating the offer, organising free seminars on promoting entrepreneurship, cooperation with banks and financial institutions".
Technology park	<ul style="list-style-type: none"> - possibility of doing business using the premises and technical infrastructure on preferential terms, - consulting services in the field of technology transfer and transformation of R&D results of activity into technological innovations 	"Increasing financial support for businesses – loans, credit guarantees, the EU grants, reducing red tape. Organising seminars and conferences for entrepreneurs, engaging in a dialogue with enterprises regarding the need for cooperation".
Business incubator	<ul style="list-style-type: none"> - providing premises for newly established small and medium-sized enterprises on preferential terms, - providing advice, e.g.: legal, tax, accounting, marketing 	"Expanding the offer of support to sources of financing for future entrepreneurs, opening new centres in the region, adjusting the offer to the needs of entrepreneurs – opening a training and consulting centre".
Regional chamber of commerce	<ul style="list-style-type: none"> - training and advice for start-ups, - preparation of applications, - consultation centre - the organisation of events such as trade shows, conferences, seminars and industry meetings 	"Measures to promote the range of services offered include: updating the website, providing a Chamber newsletter and a professional journal, promotion at events such as trade shows, conferences and seminars with the participation of entrepreneurs in the region".
Industrial and technological park	<ul style="list-style-type: none"> - land for investment, - consulting services for SMEs – credit applications, application for the EU funds, accounting and financial services related to implemented projects, - exhibition space, - virtual office 	"Taking measures to promote the park offer via the website, organising events, cooperation with other business environment institutions, organising meetings with potential investors".
Consultation centre; Entrepreneur service centre	<ul style="list-style-type: none"> - 2nd level intermediate body for the implementation of the Regional Operational Programme for Lodz, - advisory services for SMEs on how to obtain funds from the EU 	"Conducting an information campaign about the Lodz ROP, updating the website, preparation of instructional videos on how to prepare an application for financing from the EU funds".

Source: own compilation based on the author's research results ($n = 10$).

The representatives of BEIs when asked about their cooperation with small and medium-sized enterprises emphasised the diverse situation that exists in terms of this cooperation. A small number of enterprises are interested and eager to work with BEIs. However, there are companies that are not interested in this cooperation due to e.g.:

a lack of trust and a lack of knowledge of the offer, as well as the fact that the BEIs' offer is not adjusted to their needs. The analysis of the statements made by the representatives of business environment institutions indicate the main barriers to cooperation between enterprises and BEIs. The barriers associated with enterprises include:

- low propensity for cooperation,
- lack of funding for co-financing projects,
- lack of knowledge about the possibilities of cooperation,
- lack of innovation and lack of willingness to make changes,
- not seeing the purpose and benefits of cooperation,
- lack of qualified staff.

The barriers associated with business environment institutions include:

- insufficient information and promotional activities,
- failure to adapt the offer to the needs of enterprises,
- lack of specialised services,
- incompetence of employees.

While indicating the barriers to cooperation, the respondents suggested the following actions (Table 6) that should be undertaken to improve these relations:

- updating information on the scope of cooperation on the website,
- undertaking extensive promotional activities,
- closer cooperation with local government, adjusting the BEIs' offer to the needs of enterprises,
- expanding the scope of cooperation, particularly to incorporate financial support for enterprises,
- change in the human resources policy in order to provide professional services.

CONCLUSIONS

The research findings suggest that the network of business environment institutions in Poland is well-developed. These institutions are mainly located in large cities and regions with a high economic potential, where a relatively large number of business entities provide opportunities for diversification of services offered. The study shows that the role of business environment institutions in the development of small and medium-sized enterprises in the present conditions is small. This is a result of, on the one hand, little interest on the part of SMEs in the support offered by these institutions, and, on the other hand, the fact that frequently the services offered do not meet the needs of enterprises.

Entrepreneurs who collaborated with business environment institutions perceived benefits resulting from this cooperation, however, the exploitation of the potential of these institutions was limited by many barriers on the part of enterprises, i.e. a lack of funds for co-financing projects, a lack of knowledge about the possibilities of cooperation, as well as on the part of business environment institutions, i.e. insufficient information and promotional activities, a lack of adjustment of the offer to the needs of enterprises, and a lack of specialised services.

A lack of activities related to initiating cooperation is a weak point of cooperation between SMEs and business environment institutions. A large percentage of the enterprises that do not feel tangible benefits of cooperation and do not have the need to use the services offered by business environment institutions is also worth noting. This fact indicates the existence of an awareness barrier among entrepreneurs, i.e.: they do not have confidence in these institutions, do not appreciate their activity, have a low opinion of the manner these services are provided, as well as of the competence of the personnel.

To improve the situation, on the part of business environment institutions, it is necessary to update information on the scope of cooperation, undertake extensive promotional activities, adjust the offer to the needs of enterprises and expand cooperation, especially by providing financial support for enterprises. Activities aimed at improving the flow of information between business entities and promotion/establishment of cooperation between science and business are also important to improve SMEs' relations with business environment institutions.

REFERENCES

- Bąkowski, A., & Mażewska, M. (2012). *Osrodki innowacji i przedsiębiorczości w Polsce. Raport 2012*. Warsaw: PARP.
- Comarch (2014). *Finansowanie MSP z dotacji UE*. Raport z badań Comarch i dotacjomat.pl. Retrieved on January 10, 2016, from <http://dotacjomat.pl/wp-content/uploads/2015/02/raport-dotacjomat.pl.pdf>
- De, D. (2000). SME Policy in Europe. In D.L Sexton & A. Lundström (Eds.), *Handbook of Entrepreneurship Policy*. Oxford, Malden: Blackwell.
- Dominiak, J. (2013). Rola otoczenia biznesu w rozwoju regionalnym w Polsce. In Z. Zioto & R. Rachwał (Eds.), *Uwarunkowania rozwoju gospodarczego układów przestrzennych* (pp. 45-49). Kraków: Wydawnictwo Naukowe UP.
- Dyer, L.M., & Ross, C.A. (2007). Advising the Small Business Client. *International Small Business Journal*, 25 (2), 130-151.
- European Commission (1996). *Regional Action for Innovation Methodology in Design, Construction and Operation of Regional Technology Transfer*. Volume II: Assessment of the Regional Innovation Support Infrastructure. EIMS Publication No 19, Luxemburg: European Commission.
- Fabińska, M. (2013). Business Environment Institution in the Light of the Operational Programme Innovative Economy. *Acta Universitatis Lodziensis, Folia Oeconomica*, 277, 71-87.
- Filipiak, B., & Rusała J. (2008). *Instytucje otoczenia biznesu*. Warsaw: Difin.
- Gancarczyk, M. (2010). *Wsparcie publiczne dla MSP. Podstawy entrepreneur a praktyka gospodarcza*. Warsaw: C.H. Beck.
- Kufs, Ch. (2011). *Stats with Cats: The Domesticated Guide to Statistics, Models, Graphs and Other Breeds of Data Analysis*. Tucson, Arizona: Wheatmark.
- Lisowska, R. (2013). *Zarządzanie rozwojem małych i średnich przedsiębiorstw w obszarach zmarginalizowanych*. Lodz: Uniwersytet Łódzki.
- Lundström, A., & Stevenson L.A. (2005). *Entrepreneurship Policy. Theory and Practice*. International Studies in Entrepreneurship. New York: Springer.

- Matejun, M. (2015). *Absorbacja wsparcia w zarządzaniu rozwojem mikro, małych i średnich przedsiębiorstw-podejście strategiczne*. Łódź: Politechnika Łódzka.
- Mażewska, M. (2015). Infrastruktura otoczenia biznesu w Polsce. In A. Bąkowski & M. Mażewska (Eds.), *Ośrodki innowacji i przedsiębiorczości w Polsce. Raport 2014* (pp. 7-25). Poznań/Warsaw: SOOIPP.
- Niska, M., & Vesala, K. (2013). SME policy implementation as a relational challenge. *Entrepreneurship & Regional Development*, 25, 521-540.
- North, D., & Smallbone, D. (2006). Developing Entrepreneurship and Enterprise in Europe's Peripheral Rural Areas: Some Issues Facing Policy – makers. *European Planning Studies*, 14(1), 41-60.
- Stevenson, L., & Lundström, A. (2007). Dressing the Emperor: The Fabric of Entrepreneurship Policy. In: D.B. Audretsch, I. Grilo, & R. Thurik (Eds.), *Handbook of Research on Entrepreneurship Policy*. Cheltenham: Edward Elgar Publishing.
- Urdan, T.C. (2010). *Statistics in Plain English*. New York: Routledge.
- Wach, K. (2008). *Regionalne otoczenie małych i średnich przedsiębiorstw*. Kraków: Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie.

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Enhancing SMEs' Growth by Investing in Organizational Capital

Urban Pauli

ABSTRACT

Objective: The objective of this paper is to verify the relationship between the share of investments in organizational capital (OC) within the total amount of investments and key performance indicators of SMEs.

Research Design & Methods: Quantitative research based on the author's theoretical model and was conducted on a group of 180 Polish SMEs with the use of a structured questionnaire. To verify the hypothesis measures of dispersion as well as correlation were used.

Findings: The share of investments in OC vary at particular growth stages and the highest is in decline stage. Investigated firms invest mostly in 'brand' and 'IT systems'. Investing in OC seems to be important mostly for SMEs that are in the prime stage. In this stage the share of investments in OC is correlated with almost all performance indicators. It suggests that OC can be treated as a source of competitive advantage and firms' performance.

Implications & Recommendations: The appropriate share of investments in particular resources positively impact the effectiveness of decisions aimed at enhancing SMEs growth. Guidelines in what to invest help managers to plan their activities, especially while operating in a rapidly changing environment.

Contribution & Value Added: The study contributes to the stream of research devoted to SME growth factors. Despite the fact that there already are publications on the impact of particular resources on organisations' success or failure, complex studies, including those concerning Polish SMEs, are much needed.

Article type: research paper

Keywords: SMEs; small and medium-sized enterprises; growth models; organizational capital; investments; resources

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INTRODUCTION

Increasing competition among small and medium enterprises (SMEs) and between their large competitors, as well as an opportunity to act on international markets cause that companies operating in SMEs sector have to build their competitive advantage on the basis of resources that cannot be easily imitated by other firms. One of such resources is organizational capital (OC) which consists of processes, procedures, brand creation, management systems and structures. Because it is firm-specific it may play an important role in building sustainable competitive advantage. However, because firms change over their life cycle, the shape of processes and structures has to be modified as well and investments in organizational capital should be made. According to Maritan (2001) there is not much research focusing on the mechanism of building organizational capabilities by investing in resources.

This article is aimed at verifying if there is a relationship between investments in organizational capital and SMEs growth. In the first part a literature review concerning resource-based view of the firm and organisation growth theories is conducted. It is followed by a presentation of a theoretical model and results of conducted research. Conclusions are drawn on the basis of the data gathered from a 179 random sample of Polish SMEs. In the research structured questionnaire was used and correlations between the share of investments in OC and growth stages were verified. In conclusions main findings, referring to the article's main goal are presented and implications of investing in OC for SMEs growth are summed up.

LITERATURE REVIEW

Organizational Capital as a Source of SMEs Competitive Advantage

A firm may achieve and sustain a competitive advantage when it is built on the basis of resources that can be characterised as valuable, rare, inimitable and nonsubstitutable (VRIN attributes) (Barney, 1991). Such an advantage may stem from physical capital resources, human capital but also from organizational capital which is defined as internal processes and systems that refer to planning, coordinating, structure and informal relations among employees (Barney, 1991). On the basis of resource-based view of the firm Galbreath (2005) in his research used more detailed categories referring also to tangible and intangible resources. According to Galbreath's (2005, p. 980) conceptual framework "resources can be divided into:

1. Tangible resources which include (a) financial assets and (b) physical assets.
2. Intangible resources that are assets which include (a) intellectual property assets, (b) organizational assets and (c) reputational assets.
3. Intangible resources that are skills which include capabilities."

In this model organizational assets refer to factors that impact firms' performance and allow to manage all other resources. These assets should be planned and developed as they consist of such important components as structure and human resource policies (Galbreath, 2005). Similarly, Ćwik (2011, p. 35) claims that competitive advantage stems from five fundamental resources that are:

1. Human resources – especially knowledge, skills, attitudes and abilities;
2. Relational resources – relationships with stakeholders;
3. Tangible resources – real estates, materials, machines;
4. Financial resources – cash, deposits and equities that can be transferred into cash;
5. Organizational resources – that include brand, image, know-how, strategies, procedures and internal systems.

The resource-based-view of the firm focuses on factors that organisations have and may use in order to achieve appropriate level of competitiveness (Eisenhardt & Martin, 2000). The structure, quality and quantity of these resources as well as the way organisations use them is a foothold for market position. Taking into account SMEs' characteristics it should be added that they have fewer tangible and financial assets than their larger counterparts (Berends, Jelinek, Reymen & Stultiëns, 2013), which causes that their competitive advantage may stem mostly from intangible assets. Moreover, SMEs' owners do not have an access to many important market analyses and data or do not implement appropriate control systems (Voss & Brettel, 2013), which make them more vulnerable to environmental changes (Surma, 2010, p. 52). That is why organizational capital which refers to the way firms are organised, to processes they implement and to the schemes they follow, is so important in achieving appropriate level of performance. OC includes tasks that affect firms' functioning and refer to setting goals and developing strategies, planning, defining tasks, coordinating and communicating decisions to employees (Squicciarini & Le Mouel, 2012, p. 7). It can be divided into structural capital (organizational structure, IT systems and licenses), operational processes capital (procedures, guidelines, methods, schemes) and innovative capital (R&D activities, patents) (Beyer, 2010, p. 175). On the basis of the definition cited, it is assumed in this study that OC includes brand, IT systems, management systems and know-how that organisation may use in order to achieve competitive performance or act effectively. According to Flamholtz (1995) factors corresponding directly to organizational capital are the foundations of firms' performance. The development of operational systems, management systems and corporate culture impact directly the level of goal achievement. However, the importance of these factors is not the same along firms' lifecycle. That is why, organisations should analyse changes in their functioning and analyse what changes they should implement and in which components of organizational capital they should invest.

Organisations' Growth Theories

Organisations' growth is a widely discussed issue in scientific papers. Many researchers have developed their own models presenting the path organisations follow from their initial phase. The multiplicity of approaches stems mostly from the diversity of SMEs which operate in different branches and on different markets. Moreover, the number of such enterprises makes it difficult to capture similarities which makes researchers try to generalise focusing on different issues. Such models characterise precisely changes that appear in the market position, size, level of incomes, but also in the shape and complexity of internal processes and systems. According to Hugo and Garnsey (2005) firms' growth is very often analysed with the use of firm size, market share and sales revenue figures. Internal changes and resources development are less frequently discussed. That

is why, in this part, examples of most commonly cited organisation growth models are presented through the lens of changes in internal systems.

One of the most commonly cited model developed by Churchil and Lewis (1983) consists of five stages: existence, survival, success, take-off and resource maturity. The authors claim that SMEs growth is determined by factors related to the enterprise and to the owner. Those referring to the enterprise directly correspond to OC because they consist of management style, organizational structure, extent of formal systems, major strategic goals (Churchil & Lewis, 1983). As the organisation grows they have to introduce operating schemes, control systems, build their brand, design communication channels and plan their goals. Moreover, changes in organizational structure should be implemented and SMEs should switch from simple, owner-managed firms into decentralised, and functionally divided ones.

In the model of Scott and Bruce (1987) (similarly to Churchil & Lewis, 1983) five stages were defined: inception, survival, growth, expansion and maturity. In each of these stages, requirements for change in internal processes were drawn. In the beginning, in the inception, firms should concentrate mostly on formalizing basic processes and financial issues. Following their growth they should change their managing style by delegating supervisory tasks and focusing on coordination. While SMEs grow the pressure for implementing effective information and communication systems appears, and advanced control systems should be introduced. In the following stage SMEs should focus on administrative issues enabling to control and coordinate wide and complex processes, but firms should be aware of possible red-tape crisis. In the mature stages organisations should also pay more attention to marketing and brand creation, which can be important in sustaining the market position (Scott & Bruce, 1987).

Hanks, Watson, Jansen and Chandler (1993) based their model on detailed analyses of a number of organizational levels, specialised functions, formalization and average percentage of sales revenues and employment growth. In the subsequent stages that are: start-up, expansion, maturity, diversification, the number of: organizational levels vary from 2.2 to 5.7; specialised functions from 1.5 to 15.3; sales revenue growth vary from 91% (in start-ups), 297% (in expansion) to 37% in diversification (Hanks *et al.*, 1993). All these figures clearly state that there are ongoing changes in internal systems and processes on the growth path of enterprises.

Greiner (1998) built his model on the basis of crises that refer to managerial problems. These problems are connected with changes on markets as well as with the increasing size and complexity of firms. In the model five stages were described (creativity, direction, delegation, coordination, collaboration) and each of these stages forces the owner to implement changes in management style, communication system, decision making, planning and organizational structure.

The development of internal systems and processes is also discussed or can be drawn from the models of Jackson and Morgan (1982), Mintzberg (1984), Adizes (2004), Matejun (2013), Miller and Friensen (2014). Despite the fact that there are many differences in organisations' growth models, that stem from the approach adopted by the authors, each of them presents a coherent model of organisation features at subsequent stages. On the basis of such characteristics a unified model presenting changes in the internal systems of the SMEs can be drawn. According to Floren (2011) a firm's growth

extorts changes in the structure, planning and formalization level. Such a situation cause a dilemma whether to remain small and flexible or to introduce more structuralised solutions in order to reach higher effectiveness. Nevertheless, SMEs should invest in organizational capital in order to create conditions that enable reaching desired levels of performance.

Theoretical Model and Hypotheses

On the basis of organisations' growth theories it is assumed that over their life cycle SMEs follow a path that consists of five main stages: survival, take-off, prime, maturity and decline. In each of the stages a combination of resources, crucial for achieving goals and reaching appropriate level of performance, can be described. One of these resources is organizational capital which refers to the scope, extent and complexity of internal systems. The way SMEs are organised and how they run their internal processes is crucial due to their limited financial and tangible resources. If internal systems are implemented properly organisations can achieve superior performance. The theoretical foundation of the research is presented in Figure 1.

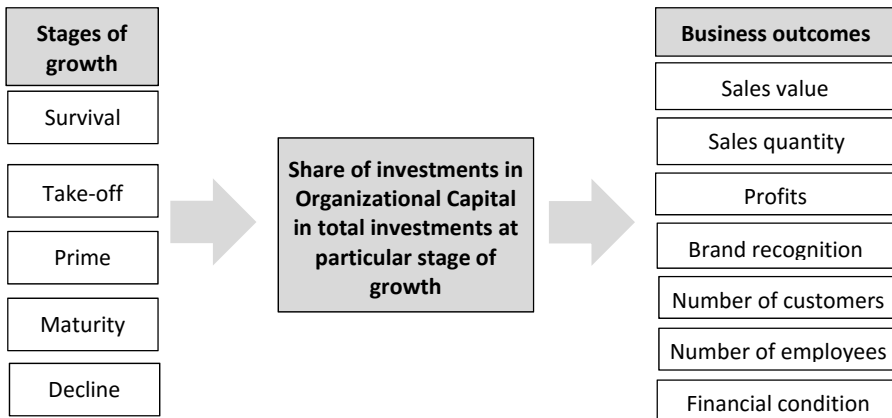


Figure 1. Impact of the share of organizational capital investments on business outcomes at growth stages

Source: own research.

According to the developed model SMEs set different goals at particular stages of their growth which refer to their potential and market position. This is why they require different resources in order to achieve desired performance. Thus, it can be hypothesized that:

H1: The share of investments in organizational capital in total investments differs in subsequent growth stages.

As SMEs grow they require different solutions enhancing their efficiency and they have to adapt to changing market conditions. Thus, the structure of investments in organizational capital should not be the same at all stages. It can be hypothesized that:

H2: The structure of investments in particular components of organizational capital differs in subsequent growth stages.

Because the shape, extent and complexity of internal processes affect efficiency it will also impact SMEs business outcomes. Thus, it can be hypothesized that:

H3: The share of investments in organizational capital within total investments impact SMEs' business outcomes at particular growth stages.

Business outcomes can be measured by the means of sales value, sales quantity, profits, brand recognition, number of customers, and overall financial condition.

MATERIAL AND METHODS

The research was conducted on a group of 470 Polish SMEs in the years 2014 and 2015. In the study the definition of SMEs provided by the Polish government (that refers to EU regulations) was implied. Only the organisations that employ between 9 and 249 employees, and have incomes up to 43 million euros (*Ustawa ...*, 2004) were taken into account. Following Churchill and Lewis (1983) and Hanks *et al.* (1993) it was assumed in the study that SMEs may go through all the subsequent stages of growth, not becoming large organisation. It implies that even a small firm may face threats referring to decline stage, because of shrinking market or mismatch between managerial decisions and market conditions.

Respondents were chosen randomly from a database consisting of 1950 items, which had been built with the use of the information from Polish Statistical Office. While selecting SMEs, stratified sampling, including geographical density of companies in regions was applied. Despite the fact that the sample corresponded to the number of companies in a particular region, it was not representative because the number of investigated companies did not correlate with the total number of SMEs in Poland. While collecting data, PAPI technique was used and the owners or managers were asked to answer questions listed in a questionnaire. During the interviews, some respondents refused to give answers to particular questions concerning the value of investments in particular resources, the sales value, profits or business outcomes. That is why, in this paper information from only 180 questionnaires was used. In most cases investigated SMEs had only one profile and services (43%) were dominant. The share of companies that act in the production and sales branch was similar (Table 1).

The first step of analytical procedure was aimed at evaluating the growth stage. On the basis of literature study and developed model, indicators of the following eight areas: products and services, distribution, technology, management, finance, customers, brand and relations with stakeholders, were investigated. For each area three to six questions were asked, giving respondents a possibility to choose an answer corresponding to the particular stage of growth. Provided options, were based on (1) quantity (for example the number of introduced innovations, range of products and services, number of distribution channels, and facilities for customers), (2) formality/complexity (for example in the 'management system' area the scope of answers to the question concerning job description was from 'we do not have job descriptions or tasks specifications', to 'we have detailed job descriptions, formalized functional relationships, and listed tasks executed while fulfilling roles', (3) relationships with stakeholders (for example, share of occasional and regular customers, stability in cooperation with suppliers and subcontractors, involvement in CSR activities, and cooperation with partners). On the basis of pro-

vided answers and with the use of modal value the stage of growth was described on a five-grade scale where '1' stands for 'survival', '2' for 'take off', '3' for 'prime', '4' for 'maturity', and '5' for 'decline'. The share of companies in particular growth stages is presented in Table 1.

Table 1. Sample characteristics

Profile (in %)	Services (A)		Production (B)		Sales (C)	A+ B+ C	A + B	A + C	B + C
	43		17		15	5	4	6	9
Market (in %)	Local	Regional	National	International	no answers				
	31	29	18	17	5				
Growth stage (in %)	Survival		Take-off		Prime	Maturity		Decline	
	16		34		28	16		5	

Source: own elaboration on the basis of data gathered.

The next step was to calculate the mean value of the share of investments in organizational capital. The data was divided into four main components: *brand*, *know-how*, *IT systems* and *management systems*. Respondents were asked to provide information about monetary value of such investments. However, they were also informed that if some activities connected with a particular component are executed by employees and are treated/regarded as an investment, respondents should provide estimated cost of such investments by calculating them on the basis of employees' salary and time spent on the activity. The share of investments in organizational capital was calculated by summing up all expenditures and dividing them by the value of all investments made by a particular company. As a result the share and the structure of investments in organizational capital was calculated. The share of investments in organizational capital in total investments represented by a value falling into a <0;1> range is presented in Figure 2. It was followed by analyses of the structure of investments in organizational capital at subsequent stages, which is presented in Figure 3.

The last stage of analytical procedure was testing the relationship between: (i) the share of investments in organizational capital and the stage of growth, (ii) the structure of OC investments and the stage of growth, and (iii) between the share of investments in OC and business outcomes. As indicators of performance nine variables, referring to: (a) quantity of products' sale, (b) quantity of services' sale, (c) value of products' sale, (d) value of services' sale, (e) profits, (f) number of customers, (g) number of employees, (h) overall financial condition and (i) brand recognition were chosen. To evaluate performance a five-grade scale was used. On the basis of business outcomes respondents achieved in the last three years, they were to specify if a given indicator: definitely decreased, decreased, remained stable, increased or definitely increased. As the variables 'stage of growth' as well as 'business outcomes' were discrete (represented by values 1-5), it was necessary to rank the variable 'share of investments in organizational capital' to verify the correlation with the use of the Spearman method. Rank '1' was granted to companies with the lowest share of investments in organizational capital.

All interviews were conducted in March and April which made it possible to provide up-to-date answers based on previous year annual statements. The results of correlation testing are presented in Table 3. However, due to the fact that only nine companies fell into the group of companies in the decline stage.

RESULTS AND DISCUSSION

Share of OC Investments in Total Investments

The average share of investments in OC in SMEs is almost at the level of one third of all investments expenditures (Figure 2). Improving internal systems and procedures is perceived by organisations as an important activity enhancing their performance. More detailed analyses of the OC investments at growth stages shows that starting from the take-off the share of spending on internal development is rising.

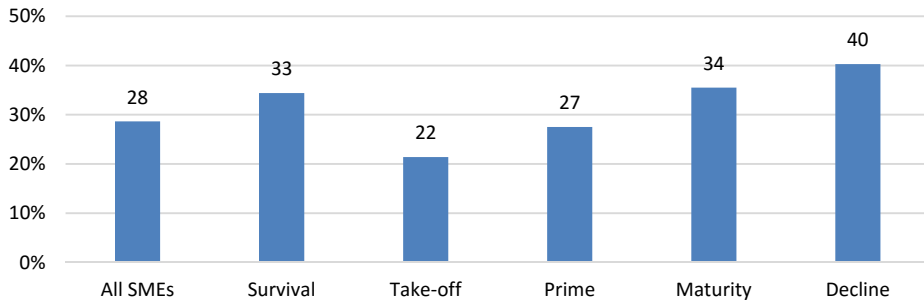


Figure 2. The share of investments in OC in total investments at subsequent growth stages (in %) (n = 180)

Source: own research.

However, it should be added that companies at the survival stage allocate more than one third of their funds in OC. Such a high share at the initial stage may stem from the necessity to organise all basic processes enabling SMEs to exist on the market and run the business. At the take-off stage, when companies focus mostly on market and search for selling opportunities, more funds are spent on other activities such as building relations with customers and business partners or investing in tangible resources. Organisations which achieve an appropriate market position at the take-off start their rapid growth that can be observed in prime stage. An increasing number of customers, new markets and business partners cause that there is a need to modify and upgrade processes and the way SMEs are managed. This is why the share of investments in OC in total expenditures is increasing. Following the growth path at the maturity stage firms are stable, with a good market position so they can pay less attention to external issues and concentrate on internal ones which generates a higher level of investments in OC. At the decline stage, as profits and market share are decreasing, companies try to reorganise their processes in order to cut off costs and reduce unnecessary activities. Such actions require funds for reengineering business processes. Despite the fact that the share of OC investments and its changes in investigated SMEs are in accordance with theoretical foundations the correlation between this variable and stage of growth was not verified statistically. Thus, it should be concluded that the first hypothesis is not supported.

Structure of OC Investments

The structure of investments in OC changes at subsequent stages. Initially, SMEs invest mostly in IT systems and in the brand (Figure 3 and Table 2). Following the growth path it can be seen that the share of investments in IT systems decreases while the ratio of brand investments rises. The correlation between these two areas and growth stages is supported statistically (Table 2). There are also changes in the share of other areas of investments. Taking into account management systems, it can be seen that SMEs do not invest in them almost at all at the survival stage. It can stem from a belief that owners or managers are able to cope with all duties or from the low complexity of internal processes that do not require advanced tools or methods. At the two subsequent stages (take-off and prime) changes in SMEs position and scope of activities may initiate investments that enhance the quality of management processes. Introduced solutions at prime stage may fit organisations, and make the share of such investments lower in the last two stages.

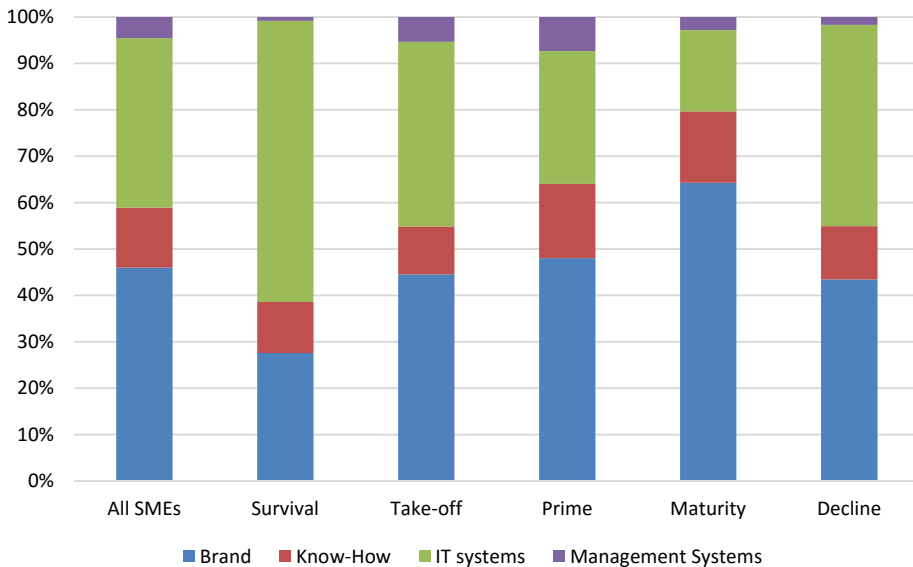


Figure 3. The structure of investments in OC at subsequent growth stages (n = 180)

Source: own research.

The share of investments in know-how is at almost the same level at survival, take-off and decline stage (Figure 3 and Table 2). However, SMEs seem to invest more in know-how at prime and maturity. It may result from the market position and firms’ potential. At the prime stage companies achieve high level of incomes, profits and their market share increases rapidly. It makes them search for new products or services and they become more eager to invest in know-how. Similar causes may refer to maturity stage. A stable market position and brand recognition create conditions in which companies willing to renew their offer invest in know-how which helps them launch new products or services. In some cases higher share of investments in know-how may also stem

from the lowering level of incomes and shrinking markets. Managers or owners of SMEs, invest in new technologies or new solutions and try to prevent organisations from falling into the decline stage.

On the basis of conducted analyses it can be concluded that the structure of investments in organizational capital varies in accordance with a particular stage of growth. Due to the fact that not all correlations were verified statistically it can be concluded that the second hypothesis is partly supported.

Table 2. Structure of OC investments at subsequent stages (as a percent of total OC investments)

Area of investments/ Growth stage	All SMEs	Survival	Take-off	Prime	Maturity	Decline
Brand (0.241828*)	46.0	27.6	44.5	48.0	64.3	43.4
Know-How	12.9	11.0	10.3	16.0	15.4	11.5
IT systems (-0.254671*)	36.5	60.6	39.8	28.6	17.5	43.4
Management systems	4.6	0.8	5.3	7.3	2.8	1.7

* Spearman's Rank Correlation significance for $p = 0,05$

Source: own research.

OC Investments and Business Outcomes

Organizational capital can be treated as a source of sustainable competitive advantage because of its VRIN attributes. Thus, investments in OC should impact SMEs' business outcomes. According to the model to evaluate the relationship between such investments and business outcomes the changes in nine performance indicators were analysed. In Table 3 the correlations between the share of investments in OC and performance indicators are presented. In the cases where the relationship is verified statistically (with $p = 0.05$) the value of the coefficient appears in the fourth column.

Table 3. Correlation between share of investments in OC and business outcomes indicators

Variables	All SMEs (n = 180)	Survival stage (n = 28)	Take-off stage (n = 48)	Prime stage (n = 48)	Maturity stage (n = 28)	Decline stage (n = 9)
Share of investments in OC	1	1	1	1	1	1
Quantity of products' sale	–	–	–	0.333449*	–	–
Quantity of services' sale	–	–	–	–	–	–
Value of products' sale	–	–	–	0.337769*	–	–
Value of services' sale	–	–	–	0.295658*	–	–
Profits	–	–	–	0.366323*	0.366839*	0.366839*
Number of customers	–	–	–	0.392860*	–	–
Number of employees	–	–	–	–	–	–
Overall financial condition	0.17802*	–	–	0.551985*	0.387029*	0.387029*
Brand recognition	0.20429*	–	–	0.498291*	–	–

* Spearman's Rank Correlation significant codes: 0.05

Source: own calculations in Statistica.

Taking into account all companies (regardless of the growth stage) there is a correlation only between the share of investments in OC and the overall financial condition or brand recognition. Despite the fact that the relationship is supported in the case of two out of nine indicators it can be stated that the overall financial condition seems to be the

most important for SMEs. In the case of all other indicators other resources, for example tangible assets, human capital or relational capital, have to be of higher importance.

There is no correlation between the share of OC investments in total investments and business outcomes in companies in the survival stage. Such organisations are exposed to so many environmental threats and have so few resources that the relationship between actions taken and performance is not constituted.

In the take-off and maturity stage there is a relationship between OC investments and one performance indicator. When SMEs are growing investments in OC are negatively correlated with value of products' sale. The requirements of shaping the way the business is organised and managed after the survival stage, cause that SMEs have to spend more funds on internal processes. At the same time the brand is not widely recognised yet and the number of customers is not increasing relatively to the owners' expectations. It may cause that the value of products' sale is much lower than expected.

At the maturity stage OC investments correlate with profits. SMEs have a stable market position and their products or services meet customers' expectations. Actions taken in order to improve or modify internal processes are aimed at increasing efficiency which may result in lowering general costs. Lower costs and high sale value may result in profits rise.

The highest impact of OC investments on business outcomes can be observed at the prime stage. The correlation is statistically important in the case of six out of nine indicators. The higher the share of OC investments is the more frequently an increase in value of products and services sale can be observed. There is also a rise in the number of customers and brand recognition which may result from introducing marketing and promotion schemes and processes. What is more, there is a positive relationship between the share of OC investments and profits or overall financial condition. Such a correlation may stem both from better brand recognition as well as from increasing efficiency of internal processes and management systems.

On the basis of conducted analysis it can be concluded that the share of investments in OC impacts business outcomes mostly at the prime stage. At other stages there is no correlation or OC investments impact only one indicator. Thus, it can be stated that the third hypothesis is partly supported.

CONCLUSIONS

Organizational capital which is firm specific, difficult to imitate and substitute is treated as a source of sustainable competitive advantage. In the case of SMEs which have fewer financial and tangible assets than their large competitors, such a resource can play a crucial role in achieving a success. Despite the fact that firms build their organizational capital from the initial phase by changing the way they act and by implementing modifications in internal processes, it can be stated (on the basis of conducted research) that it does not have the same impact on business outcomes at every stage of SMEs growth.

Investments in organizational capital seem to be the most important at the prime stage in which SMEs face a rapid growth. Lack of investments in OC may create constraints that lower SMEs' potential and cause a decrease in their performance. Thus, it is very important for managers and owners to provide conditions for incremental growth at this stage. It is also important that in general, investments in OC impact the overall fi-

nancial condition and brand recognition. Taking into account all investigated SMEs, regardless of their stage of growth, size and profile, the correlation between these variables was statistically verified. It suggests that OC can be treated as a source of competitive advantage and firms' performance.

Despite the fact that there was no statistical correlation between the share of OC investments and the particular stage of growth, SMEs seem to follow schemes presented in the theory of organisation growth. The share of OC investments in total investments is high at the survival stage which results from the necessity to initiate all activities. At the take-off stage it drops and investments in other resources, for example tangible assets or relationships with stakeholders, are made. Starting from the take-off stage there is an increase in the share of OC investments which is associated with the rising complexity of internal processes and the size of the firm. Such findings might be important for managers and owners because of their applicability. They should make their investment decisions on the basis of an in-depth analysis of the firms' functioning and not to implement the same schemes of investments all the time.

On the basis of conducted research it should also be concluded that managers and owners should invest more in the brand on subsequent stages. The more developed an organisation is the more attention should be paid to promotion and building the organisation's image. Diverse conclusion could be drawn while taking into account IT systems. The share of IT investments decreases on subsequent stages. It can be concluded that appropriate investments at the initial stages can support SMEs functioning throughout their lifecycle.

Despite the fact that the research provides data to draw conclusions concerning investments in OC and SMEs growth, it has several limitations. First of all, the sample consists of only Polish SMEs which makes it impossible to generalize about the findings and apply them also to companies that operate in other countries. Secondly, taking into account the total number of existing SMEs, the sample size of 470 companies initially interviewed, and 180 finally taken into account for statistical analyses, is relatively small. Although SMEs were selected randomly from a database including 1950 items, the results cannot be applied as a representative because of three main reasons: (i) the sample consists of Polish enterprises only, (ii) the sample is relatively small in comparison to the number of existing SMEs, (iii) the sample was not homogenous – SMEs operating in different branches and having different profiles were analysed. Thirdly, in the sample SMEs in their decline stage were underrepresented which made it necessary to implement stratified sampling in the further study. Fourthly, information concerning investment expenditures referred only to the data included in financial statements for 2013 or 2014. In order to analyse the impact of investments on performance and growth it is necessary to compare collected data with those referring to a longer scope of time, especially whilst analysing investments in organizational capital. Finally, some changes in methodology can be implemented. They may refer to evaluation of a growth stage, as a modal value could not be sufficient enough to classify particular SME into an adequate stage of growth. Moreover, some econometrical models describing relationships between investments in OC and performance could be applied in further research. Having verified statistical correlation between investments in OC and some performance indicators at

particular growth stages, despite the limitations the research is a foothold for further studies that could be conducted in more homogenous groups of SMEs.

REFERENCES

- Adizes, I. (2004). *Managing corporate lifecycles*. Carpinieria: Adizes Institute Publications.
- Barney, J.B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Bayer, K. (2010). Kapitał intelektualny jako zasób przedsiębiorstwa – koncepcja i modele zarządzania (intellectual capital as a resource in enterprise – conception and models of management). *Studia i Prace WNEiZ*, 17, 171-182.
- Berends, H., Jelinek, M., Reymen, I., & Stultiëns, R. (2014). Product Innovation Processes in Small Firms: Combining Entrepreneurial Effectuation and Managerial Causation. *Journal of Product Innovation Management*, 31(3), 616–635.
- Churchil, N.C., & Lewis, V.L. (1983). The five stages of small business growth. *Harvard Business Review*, 61(3), 30-50.
- Ćwik, K. (2011). Zachowania strategiczne małych przedsiębiorstw i ich uwarunkowania w aspekcie teoretycznym (Strategic behaviours of SMEs and their determinants in the theoretical aspect). In S. Lachiewicz, & M. Matejun (Eds.), *Zarządzanie rozwojem małych i średnich przedsiębiorstw (SMEs growth management)* (pp. 26-43). Warszawa: Oficyna Wolters Kluwer Business.
- Eisenhardt, K.M., & Martin, J.A. (2000). Dynamic capabilities: what are they? *Strategic Management Journal*, 21(10-11), 1105-1121.
- Flamholtz, E. (1995). Managing Organizational Transitions: Implications For Corporate and Human Resource Management. *European Management Journal*, 13(1), 39-51.
- Floren, H. (2011). Organising small-firm growth. In S.-Å. Hörte (Ed.), *Research on Technology, Innovation and Marketing Management 2009-2011: Introducing the Research Area of Innovation Science* (pp. 117-133). Halmstad: Högskolan i Halmstad.
- Galbreath, J. (2005). Which resources matter the most to firm success? An exploratory study of resource-based theory. *Technovation*, 25(9), 979-987.
- Greiner, L.E. (1998). Evolution and revolution as organizations growth. *Harvard Business Review*, 76(3), 55-68.
- Hanks, S., Watson, C., Jansen, E., & Chandler, G. (1993). Tightening the life-cycle construct: A taxonomic study of growth stage configurations in high-technology organisations. *Entrepreneurship Theory and Practice*, 18(2), 5-29.
- Hugo, O., & Garnsey, E. (2005). Problem-Solving and Competence Creation in the Early Development of New Firms. *Managerial and Decision Economics*, 26(2), 139-148.
- Jackson, J.H., & Morgan, C.P. (1982). *Organization Theory. A Macro Perspective for Management*. London: Prentice Hall.
- Maritan, C.A. (2001). Capital Investments as investing in organizational capabilities: an empirically grounded process model. *The Academy of management Journal*, 44(3), 513-531.
- Matejun, M. (2013). Instruments Supporting Development in the Life Cycle of Small and Medium-Sized Enterprises. *International Journal of Economic Sciences*, 11(1), 40–60.
- Miller, D., & Friessen, P.H. (2014). A longitudinal Study of the corporate lifecycles. *Management Science*, 30(10), 1161-1183.

- Mintzberg, H. (1984). Power and organization life cycles. *Academy of Management Review*, 9(2), 207-224.
- Scott, M., & Bruce, R. (1987). Five stages of growth in small business. *Long Range planning*, 20(3), 45-52.
- Squicciarini, M., & Le Mouel, M. (2012). *Defining and Measuring Investment in Organizational Capital: Using US Microdata to Develop a Task-based Approach*. OECD Science, Technology and Industry Working Papers, 2012/05. Paris: OECD Publishing. doi: <http://dx.doi.org/10.1787/5k92n2t3045b-en>
- Surma, J. (2010). *Rola analogii w podejmowaniu decyzji w zarządzaniu strategicznym małymi i średnimi przedsiębiorstwami*. Warszawa: Oficyna Wydawnicza SGH.
- Ustawa z dnia 2 lipca 2004 r. o swobodzie działalności gospodarczej (*Economic Freedom Act*), Dz. U. Nr 173, poz. 1807.
- Voss, U., & Brettel, M. (2014). The Effectiveness of Management Control in Small Firms: Perspectives from Resource Dependence Theory. *Journal of Small Business Management*, 52(3), 569-587.

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Measuring Entrepreneurial Orientation in the Social Context

Rafał Kusa

ABSTRACT

Objective: The objective of this paper is to identify differences between measurement of organisational entrepreneurship in for-profit and non-profit context and to propose the measures aligned to non-profit organisations. The main research question is whether the scales designed to measure entrepreneurial orientation can be used in non-profit organisations and under which conditions.

Research Design & Methods: Research methodology is based on review of research tools and measurement scales related to organisational entrepreneurship and comparison of for-profit and non-profit organisations, as well as their characteristics in the context of entrepreneurial orientation.

Findings: Entrepreneurial orientation can be measured in non-profit organisations using existing scales that have been designed for business organisations, however they have to be modified, mostly in the dimension of competitive aggressiveness and autonomy. Additionally, the scale should be enriched with items related to cooperation with other organisations.

Implications & Recommendations: It is necessary to develop methods and tools that enable the measurement of entrepreneurial orientation in non-profit organisation as well as comparative research on entrepreneurial orientation in for-profit and non-profit organisations.

Contribution & Value Added: The originality of this work lies in studying some aspects of entrepreneurial orientation, that apply to the social context. Some suggestions were formulated relating to the utilisation of entrepreneurial orientation scales (originally designed for business enterprises) in non-profit organisations.

Article type: conceptual paper

Keywords: social entrepreneurship; entrepreneurial orientation; autonomy; inter-organisational cooperation

JEL codes: L26, L31

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INTRODUCTION

Entrepreneurship is perceived as one of the sources of success for economies, organisations and human beings. Bhargava notes that “companies which treated entrepreneurship as an integral part of their business strategy succeeded in maintaining top ranks for years” (Bhargava, 2008, p. 31). Entrepreneurship is assigned both to for-profit and non-profit activities. In the case of the latter type of activity, the concept of social entrepreneurship has been developing over the last few decades.

Non-profit organisations (NPO), including many types of social enterprises that use business activities to provide social needs, play a significant role in modern societies. We have observed an increase in their numbers in many countries as well as an increase in the scale and scope of their activity. Many non-profit organisations face similar problems as for-profit enterprises; for example, limited resources, increasing expectations, or changes in the external environment. Many of them behave in similar ways; for example, they compete for resources, innovate to offer better services, or look for new opportunities to serve new social groups. Accordingly, we can compare them from several points of view. One such view is the level of entrepreneurial activity of the organisations.

The theory of organisational entrepreneurship and its related research methodology have been developing dynamically over the last few decades. However, they mostly focus on business activity. The challenge faced by researchers is to conceptualise and operationalise the organisational entrepreneurship in a social context. One of the concepts that could be applied to this context is entrepreneurial orientation (EO).

The objective of this paper is to investigate whether the scales designed to measure entrepreneurial orientation can be used in non-profit organisations (and under which conditions). Firstly, the concepts of entrepreneurship related to the organisational level are presented. Then, the methodologies dedicated to measuring organisational entrepreneurship are reviewed, with a focus on those scales used to measure the entrepreneurial orientation of organisations. Afterwards, the differences between for-profit and non-profit organisations are analysed (in the context of organisational entrepreneurship). Finally, some modification of the present scales of EO that have been employed by research will be suggested. To achieve the objective, the literature will be reviewed; and based on the results of the review, solutions enabling the measurement of entrepreneurial orientation in the social context will be recommended.

MATERIAL AND METHODS

The research problem behind this paper is measuring entrepreneurial activity in a non-profit organisation. The paper is a conceptual one, and its aim is to suggest some related measures adequate to the characteristics of these types of organisations.

To achieve the goal, the following sub-objectives will be achieved: (1) identification of organization-level entrepreneurship concepts; (2) defining specific traits of non-profit activity and their consequences for entrepreneurial activity; (3) recommending measures adequate to the entrepreneurship of non-profit organisations, including verification, if some measures used in for-profit entrepreneurship research could be used. The first and

second sub-objectives will be pursued by literature studies. Literature from the following fields will be reviewed and analysed:

- the general theory of entrepreneurship,
- organisational entrepreneurship and entrepreneurial orientation,
- social entrepreneurship and non-profit sector.

The relevant materials will be selected mostly from scientific journals focused on the above-mentioned fields. A number of sources will be limited to the most-cited publications; however, some new ones will also be included. Firstly, the materials from each field will be analysed separately, with a focus on issues related to other areas. Then, the propositions resulting from the previous analysis will be suggested and developed. Afterwards, the third sub-objective will be achieved through the critical analysis of present measures and inference based on previous literature studies.

LITERATURE REVIEW

General Theory of Entrepreneurship

Entrepreneurship is a multidimensional construct that can be analysed from different perspectives. One of the most-cited contemporary definitions was proposed by Shane and Venkatraman, who define entrepreneurship as a “scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited” (Shane & Venkatraman, 2000, p. 218). Stevenson, Roberts, and Grousbeck defined entrepreneurship as “a process by which individuals – either on their own or inside organisations – pursue opportunities without regard to the resources they currently control” (Stevenson *et al.*, 1989) quoted in (Stevenson & Jarillo, 1990, p. 23). Hisrich, Peters and Sheperd (2005) quoted in (Leutner *et al.*, 2014, p. 58) identify entrepreneurship with “behaviours that are related to the creation of value through the exploitation of opportunities in novel and innovative ways”. McGrath and MacMillan (2000) quoted in (Ma & Tan, 2006, p. 714) perceive entrepreneurship as “the relentless pursuit of opportunities as well as resources”.

In the above definitions, entrepreneurship is connected with opportunities. Casson (1982) quoted in (Shane & Venkatraman, 2000, p. 220) defined opportunities as “those situations in which new goods, services, raw materials, and organising methods can be introduced and sold at greater than their cost of production”. Opportunity is also defined as a “future situation which is deemed desirable and feasible” (Stevenson & Jarillo, 1990, p. 23). Shane and Venkatraman (2000, p. 220) acknowledge that opportunities themselves are objective phenomena that are not known to all parties at all times, but the recognition of entrepreneurial opportunities is a subjective process. Kirzner (1997) quoted in (Shane & Venkatraman, 2000, p. 220) mentions that entrepreneurial opportunities require the discovery of new means-ends relationships, whereas the other for-profit opportunities involve optimisation within existing means-ends frameworks.

Gartner (1989) identifies entrepreneurship with creating organisations. For him, this is an activity that differentiates entrepreneurs from non-entrepreneurs: “entrepreneurs create organisations, while non-entrepreneurs do not” (Gartner, 1989, p. 47).

Entrepreneurship is also perceived as a process that “involves all the functions, activities, and actions associated with the perceiving of opportunities and the creation of

organisations to pursue them” (Bygrave & Hofer, 1991, p. 14). Hisrich, Peters and Shepherd (2005) argue that the entrepreneurial process involves the identification and evaluation of opportunity, development of the business plan, determination of the required resources, and management of the resulting enterprise.

Entrepreneurship is also perceived as a set of attitudes, such as the desire to achieve, the passion to create, the yearning for freedom, the drive for independence, and the embodiment of entrepreneurial visions and dreams through tireless hard work, calculated risk-taking, continuous innovation, and undying perseverance (Ma & Tan, 2006, p. 704).

Organisational Entrepreneurship and Entrepreneurial Orientation

Entrepreneurship can be treated as a trait of an organisation. It reflects the entrepreneurial behaviours in existing organisations. These “formal or informal activities aimed at creating new businesses in established companies through product and process innovations and market developments” are called corporate entrepreneurship (Zahra, 1991, p. 261) quoted in (Morris & Kuratko, 2002, p. 31). Corporate entrepreneurship is also perceived as a way of “renewal or innovation within current organization” (Sharma & Chrisman, 1999, p. 13) quoted in (Morris & Kuratko, 2002, p. 31). Such a concept shows that the entrepreneurial process does not end when the organisation is founded, but it is continued within that organisation. The entrepreneurial process could be described as a cyclical one, and it could be connected with organisational development. It could be presented on the model of a spiral of the entrepreneurial development of an organisation (Kusa, 2015, p. 705). Kuratko and Audretsch stated that “the major impetus underlying corporate entrepreneurship is to revitalize innovation, creativity, and leadership in corporations. Corporate entrepreneurship may possess the critical components needed for the future productivity of global organizations” (Kuratko & Audretsch, 2013, p. 332).

Organisations vary in terms of entrepreneurship. Researchers and practitioners strive to measure the level of entrepreneurship in organisations. Morris (1998, p. 18) states that “entrepreneurship occurs in varying degrees and amounts” and suggests the concept of “entrepreneurial intensity”. Lumpkin and Dess (1996, p. 137) developed a concept of entrepreneurial orientation (EO). This concept is based on the definition of an entrepreneurial firm, which was proposed by Miller (1983). He stated that “an entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with ‘proactive’ innovations, beating competitors to the punch” (Miller, 1983, p. 771). Covin and Slevin (1989, p. 75) have built a scale to measure the EO, which is comprised of three dimensions: risk-taking, innovativeness, and proactiveness, and Lumpkin and Dees (1996, p. 137) augmented it by adding two more dimensions: autonomy and competitive aggressiveness. Some modifications of this scale were proposed. One of them is the scale of Hughes and Morgan, who used 18 items to measure the dimensions of entrepreneurial orientation and 5 items to estimate the business performance of firms at the embryonic stage of development. They have found that uniform effort in all EO dimensions does not generate consistent gains in business performance, and organising activities around proactiveness and, to some extent, innovativeness is essential to securing improved performance for such firms (Hughes & Morgan, 2007, pp. 657-658).

Covin and Wales (2012, p. 677) analysed a different measurement approach towards entrepreneurial orientations and stated that “unidimensional versus multidimensional EO measurement models are consistent with fundamentally different conceptualisations of the EO construct”. Schillo (2011, p. 24) suggests that entrepreneurial orientation could be useful for practitioners as a source of managerial recommendations. However, entrepreneurial orientation is not an effective concept under all environmental conditions. For example, Frank, Kessler and Fink (2010, p. 194) concluded from their empirical analyses that it “might preferably be pursued in rapidly changing environments that offer new opportunities, and in which the firm has sufficient financial resources at its disposal to take advantage of those opportunities using a portfolio of innovation activities”, but it is not advisable using it when “a dynamic environment is combined with low access to financial capital”.

Social Entrepreneurship

Entrepreneurial activities can be observed in non-profit organisations. They are linked with the tendency of becoming ‘business-like’ of non-profit organisations (Maier, Meyer & Steinbereithner, 2014, p. 1). Verreynne, Miles and Harris (2013, p. 113) have observed that “these ‘profit for purpose’ organisations use market transactions to generate social benefits directly (for example by providing employment opportunities for the disabled in sheltered workshops) and/or indirectly (by creating revenues that support social initiatives) for their beneficiaries”. Such activities are analysed in the frame of the social entrepreneurship concept, which offers a theoretical basis for such analysis.

Yunus (2011) defines social entrepreneurship as an “initiative of social consequences, taken by an entrepreneur with a social vision, where the initiative may be both non-economic, associated with a charity or business initiative oriented towards personal profit or without such an option”. Mair and Marti (2006, p. 37) perceive social entrepreneurship as “a process involving the innovative use and combination of resources to pursue opportunities to catalyse social change and/or address social needs”. They argue that social entrepreneurship can occur in both new organisations and established ones.

Researchers of the European Research Network identify social entrepreneurship with social economy. They define social enterprises as “organisations with an explicit aim to benefit the community, initiated by a group of citizens and in which the material interest of capital investors is subject to limits. Social enterprises also place a high value on their autonomy and on economic risk-taking related to ongoing socio-economic activity” (Defourny & Nyssens, 2006, p. 5). The model proposed by the European Research Network distinguishes three sets of criteria (three economic and entrepreneurial, three social, and three related to the participatory governance) according to which entities and initiatives are classified as parts of a social economy. The economic criteria comprise a continuous activity, producing goods and/or selling services, a significant level of economic risk, and a minimum amount of paid work. The social criteria include the explicit aim to benefit the community, an initiative launched by a group of citizens or civil society organisations, and a limited profit distribution. Finally, the dimension of participatory governance is described by a high degree of autonomy, a decision-making power not based on capital ownership, and a participatory nature, which involves various parties affected by the activity (Defourny & Nyssens, 2012, pp. 12-15).

In the EU's documents, the term 'social enterprise' is used to cover the following types of business (European Commission, 2011, p. 2):

- those for which the social or societal objective of the common good is the reason for the commercial activity, often in the form of a high level of social innovation,
- those where profits are mainly reinvested with a view to achieving this social objective,
- those where the method of organisation or ownership system reflects their mission, using democratic or participatory principles or focusing on social justice.

Because of many approaches to social enterprises as well as different definitions and legal forms dedicated to this kind of activity in different countries, it is not precise to identify social enterprises with non-profit organisations (although many social enterprises could be classified as non-profits). There is an increasing number of publications describing social initiatives (e.g., pioneering social enterprises in Bangladesh (Yunus, 2011) or activities of Ashoka leaders (Bornstein, 2009), as well as reports. One of the examples of statistical research is an examination of social entrepreneurship in 49 countries based on the Global Entrepreneurship Monitor methodology. The results of this research show that in widely defined social entrepreneurship there is a significant part of the population involved: 4.1% of the population in Belgium, 7.5% in Finland, 3.1% in France, 3.3% in Italy, 5.4% in Slovenia, and 5.7% in the United Kingdom (Terjesen, Lepoutre, Justo & Bosma, 2011). Other statistics show that European social enterprises operate within a wide range of areas, including work integration of disadvantaged groups and social services of general interest such as long-term care for the elderly and for people with disabilities, early education and childcare, employment and training services, social housing, social integration of disadvantaged such as ex-offenders, migrants, drug addicts, etc., and health care and medical services (European Commission, 2014, p. 2).

Applying Entrepreneurial Orientation to Social Entrepreneurship

Scholars researching non-profit organisations compare them and their management practices with their business counterparts. Austin, Stevenson and Wei-Skillern (2006, pp. 3-4) suggest focussing on the following variables to conduct a comparative analysis:

- market failure, when those needing the services are not able to pay for them, which is perceived as a problem by the commercial entrepreneurs and an opportunity by social ones,
- mission, which is focused on creating social value in the case of social entrepreneurship and on creating profitable operations resulting in private gain in the case of commercial entrepreneurship,
- resource mobilisation, both financial (which are acquired from different sources) and human (staff in non-profit organisations is often not compensated as competitively as in commercial enterprises),
- performance measurement, which relies on relatively tangible and quantifiable measures of performance, such as financial indicators, market share, customer satisfaction, and quality in the case of commercial organisations and a much more challenging measurement of social impact, which will remain a fundamental differentiator, complicating accountability, and stakeholder relations.

Lumpkin, Moss, Gras, Kato and Amezcua (2013, p. 763) analysed entrepreneurial processes within social contexts and the antecedents and outcomes that make social entrepreneurship unique. They pointed to the presence of a social mission and/or motivation to pursue a social purpose, multiple stakeholders linked to the purpose or mission, and a perspective that opportunity-identification processes may be different when directed toward social problems. They stated that many entrepreneurial processes change very little in the presence of antecedents and outcomes that are related to social context. However, these processes are likely to be challenged by the presence of multiple stakeholders and how autonomy and competitive aggressiveness function in a social context (Lumpkin *et al.*, 2013, p. 780). This is in line with Žur's conclusion that "non-financial performance outcomes have not been addressed enough" and suggests spreading the research across different entrepreneurship contexts (such as social and non-profit) and adjusting relevant scales and measures (Žur, 2015, p. 22).

Morris, Webb and Franklin (2011) relate non-profit organisations directly to entrepreneurial orientation, conceptualised in a three-dimensional scale built by Covin and Slevin (1989). Morris *et al.* (2011, p. 956) observed that "the meaning of innovativeness, proactiveness, and risk taking are more complex and multifaceted in the non-profit context", and they proposed an alternative conceptualisation, with sub-dimensions emerging for all three dimensions, which are meant to capture the meaning of entrepreneurship and EO more accurately in the non-profit context.

We could find some examples of using EO scales in the non-profit sector. Davis, Marino, Aaron and Tolbert (2011) explored the differences in entrepreneurial orientation by profit status. They surveyed 134 nursing home administrators, and they have found that "there was no significant difference in the EO between non-profits and for-profits, but that non-profits were significantly more likely to engage in environmental scanning activities such as gathering information from trade magazines and suppliers and that they remained abreast of economic and technological trends more than their for-profit counterparts" (Davis *et al.*, 2011, p. 197). Pearce, Fritz and Davis (2009) surveyed 250 religious congregations using a modified Covin and Slevin (1989) EO scale. They observed that entrepreneurial orientation is positively associated with organisational performance (Pearce *et al.*, 2009, p. 219).

DISCUSSION

The results of the literature review suggest that (1) the theory of entrepreneurship offers different concepts of organisational entrepreneurship, (2) some of these concepts are operationalised, (3) there were some surveys conducted based on these conceptualisations, and (4) some attempts to measure the level of entrepreneurial activity in non-profit organisations were made. Based on these observations, we can assume that it is possible to measure the level of entrepreneurial activity of non-profit organisations. However, there are still some questions as well as challenges faced by researchers when designing the survey on entrepreneurial orientation in the non-profit sector.

The present experience in measuring organisational entrepreneurship suggests using scales aligned with the concept of entrepreneurial orientation. According to the Covin and Slevin (1989) measure, EO frames innovativeness, proactiveness, and risk-taking. In the Hughes and Morgan (2007) scale, competitive aggressiveness and autonomy is also

included. The statements related to competitive autonomy, as “In general, our business takes a bold or aggressive approach when competing” or “We try to undo and outmaneuver the competition as best as we can” (Hughes & Morgan, 2007, p. 659) could be non-relevant to behaviours of non-profit organisations. These organisations tend to focus on their social mission and unmet social needs, and they strive to solve some social problems and maximise social value rather than get a better competitive position and maximise their financial value. On the other hand, NPOs are more willing to cooperate with other organisations working with the same target groups, which is not typical in the case of business enterprises¹. If we interpret cooperation as a way of pursuing an opportunity to satisfy social needs, we can treat it as a specific dimension of social entrepreneurship. It leads us to the proposition that, in the case of research comparing for-profit and non-profit entrepreneurship, the Hughes and Morgan (2007) scale is more adequate, and it should be expanded to the item or items related to cooperation with other organisations focussed on the same goals. It could be hypothesised that this dimension mostly distinguishes both types of organisations and entrepreneurship (for-profit and non-profit).

The next attributes that could differentiate both types of organisation are autonomy and independency, which are perceived by Lumpkin and Dees (1996, p. 140) as key components of entrepreneurial orientation. It could be also expected that social entrepreneurs have different attitudes to risk and are led by different motivations to take risk. These differentiating dimensions require special attention during the design of measures and analysis of results.

Some suggested changes in the items in the EO scale are presented in Table 1: original indicators are presented in column A, while the suggested indicators aligned with non-profit context are in column B.

Some terminological modifications are required when implementing the scales to social context; e.g., instead of the term “business”, the term “organisation” can be used. In the case of tools dedicated to a particular group of organisations, some more changes could be desirable as done by Pearce, Fritz, and Davis (2009), who used the scale of Covin and Slevin (1989) to survey EO in religious congregations – they asked about “new ministries and worship services” instead of “new products and services” (Pearce *et al.*, 2009, p. 219).

Additionally, in the case of comparative research focussed simultaneously on for-profit and non-profit organisations, it is necessary to decide whether one universal measuring tool is to be used or many tools adjusted to particular groups of organisations in parallel. The universal tool could be inadequate for every type of organisation. In the latter case, all of these tools have to be compatible with each other to enable a comparison of results. It could be required to scale the measured dimensions differently in the case of for-profit and non-profit organisations (Morris *et al.*, 2011, p. 966).

¹ This does not mean that for-profit enterprises are not able or not willing to cooperate – they do so in many ways, but there are different motivations and expectations behind such activity, as they focus on economic goals (e.g., cooperating with one group of enterprises to compete with another).

Table 1. Examples of indicators of entrepreneurial orientation designed for for-profit and non-profit organisations

Original content of items (designed for for-profit organisations)	Modified content of items (designed for non-profit organisations)
In general, the top managers of my firm favour a strong emphasis on R&D, technological leadership, and innovations*	In general, the leaders of my organisation favour a strong emphasis on scientific analysis and predictions, pioneering solutions, and innovations
In dealing with its competitors, my firm typically adopts a very competitive, “undo-the-competitors” posture*	In dealing with other organisations, my organisation typically focus on the maximisation of social value, including cooperation with other organisations
In general, the top managers of my firm have a strong proclivity for high-risk projects (with chances of very high returns)*	In general, the leaders and top managers of my organisation have a strong proclivity for high-risk projects (with chances of solving the most difficult social problems)
We always try to take the initiative in every situation (e.g., against competitors, in projects when working with others)**	We always try to take the initiative in every situation (e.g., against groups of opponents or sceptics, in projects when working with others)
In general, our business takes a bold or aggressive approach when competing**	In general, our organisation takes a bold or aggressive approach in the face of total inability
We try to undo and out-manoeuvre the competition as best as we can**	We try to convince other organisation to cooperate with us or to support our aims as best as we can

* items from the Covin and Slevin EO scale

** items from the Hughes and Morgan EO scale

Source: own elaboration based on (Hughes & Morgan, 2007, p. 659; Covin & Wales, 2012, p. 692).

CONCLUSIONS

Measuring entrepreneurial activity in non-profit organisations is one of the challenges faced by researchers and practitioners. Literature studies show that there are some methodologies that enable the measurement of such activities in business organisations. The entrepreneurial orientation scales (designed originally for for-profit organisations) can be used in non-profit organisations. However, they require some modification. These modifications refer especially to those dimensions that differentiate both types of organisation. According to the results of the literature study, these areas include relations with other organisations as well as the autonomy of the employees and members. Taking into account the findings above, modifications of some items of the EO scales were suggested in the paper.

It should be noted that, as entrepreneurship is a multidimensional phenomenon that occurs in many types of activities, the suggested modifications could be irrelevant to each organisation. Moreover, the EO scales simplify the phenomenon of entrepreneurship, which may result in skipping or not fully reflecting some attributes of the entrepreneurship. Relying on experiences from business organisations may lead to omitting some

aspects of entrepreneurship that are important within non-profit organisations but not relevant to business organisations (and not reflected in the original scales). To minimise these limits, it is necessary to explore the specific characteristics of the surveyed organisations and their environment. Creating new scales dedicated solely for non-profit organisations emerges as an alternative solution. However, such a new scale needs to be statistically tested, while the existing ones have already been verified. The next limitation is connected with the geographical context. The analysed literature reflects the characteristics of entrepreneurial practice in the non-profit sector in the European Union and the United States. The findings and recommendations might not be applicable to non-profit organisations operating in other regions. This limitation is connected partly with the methods applied in the paper, and it could be recommended to extend the scope of future research to other areas as well as include other research methods to verify the propositions.

The literature study and (especially) the published results of existing research suggest that it is desirable to support entrepreneurial behaviours in non-profit organisations. Practical prompts for practitioners are needed; for example, which solutions from for-profit organisations could be implemented in non-profit ones (and vice-versa) or how can entrepreneurship in non-profit organisations be supported?

Parallel to developing practical knowledge, the theoretical base should be expanded. To understand the nature of entrepreneurship as a universal phenomenon existing in different kinds of activities, it is recommended to conduct comparative studies covering both social and business organisations. One of the questions to be answered is: In which dimensions are social and business entrepreneurship similar, and in which ones are they different? To understand the nature of social entrepreneurship, it is important to compare entrepreneurial behaviours in social enterprises and other types of non-profit organisation (e.g., charities, associations) and to explore which organisational or legal forms of non-profit organisations are more eligible for using business activities to strengthen the achievement of their social goals. Comparing entrepreneurship in non-profit and for-profit organisations, or traditional non-profits with social enterprises, requires the development of research methodology, including the design of a questionnaire or methods of collecting data.

Taking into account the role of the non-profit sector, researching entrepreneurial orientation in a social context is reasonable objective, as it could support the future development of non-profit organisations and (furthermore) their effectiveness in solving social problems.

REFERENCES

- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: Same, different, or both?. *Entrepreneurship Theory and Practice*, 30(1), 1–22. doi: 10.1111/j.1540-6520.2006.00107.x
- Bhargava, S. (2008). Entrepreneurial Management: Emergence of a New Field. In S. Bhargava (Ed.), *Entrepreneurial Management* (pp. 1-41). Los Angeles: SAGE Publications.
- Bornstein, D. (2009). *Jak zmienić świat. Przedsiębiorcy społeczni – wizjonerzy naszych czasów*. Gdańsk: AnWero Wydawnictwo.

- Bygrave, W.D., & Hofer, C.W. (1991). Theorizing about entrepreneurship. *Entrepreneurship Theory and Practice*, 16(2), 13-22.
- Casson, M. (1982). *The entrepreneur*. Totowa, NJ: Barnes & Noble Books.
- Covin, J.G., & Slevin, D.P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10, 75-87. doi: 10.1002/smj.4250100107
- Covin, J.G., & Wales, W.J. (2012). The Measurement of Entrepreneurial Orientation. *Entrepreneurship Theory and Practice*, 36(4), 677-702. doi: 10.1111/j.1540-6520.2010.00432.x
- Davis, J.A., Marino, L.D., Aaron, J.R., & Tolbert, C.L. (2011). An Examination of Entrepreneurial Orientation, Environmental Scanning, and Market Strategies of Nonprofit and For-Profit Nursing Home Administrators. *Nonprofit and Voluntary Sector Quarterly*, 40, 197-211. doi: 10.1111/10.1177/0899764009351112
- Defourny, J., & Nyssens, M. (2006). Defining social enterprise. In M. Nyssens (Ed.), *Social Enterprise. At the crossroads of market, public policies and civil society* (pp. 3-26). London and New York: Routledge.
- Defourny, J., & Nyssens, M. (2012). The EMES approach of social enterprise in a comparative perspective. *EMES Working Papers Series*, 12(3). Retrieved on April 30, 2016 from <http://www.emes.net>
- European Commission (2011). *Social Business Initiative: Creating a favorable climate for social enterprises, key stakeholders in the social economy and innovation*. COM (2011) 682 final, Brussels.
- European Commission. (2014). *A map of social enterprises and their ecosystems in Europe. Executive Summary*. London: ICF Consulting Service.
- Frank, H., Kessler, A., & Fink, M. (2010). Entrepreneurial Orientation and Business Performance – a Replication Study. *Schmalenbach Business Review*, 62, 175-198.
- Gartner, W.B. (1989). „Who is an entrepreneur?” Is the wrong question. *Entrepreneurship Theory and Practice*, Summer, 47-67.
- Hisrich, R.D., Peters, M.P., & Shepherd, D.A. (2005). *Entrepreneurship (6th Edition)*. New York, USA: McGraw-Hill Irwin.
- Hughes, M., & Morgan, R.E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. *Industrial Marketing Management*, 36, 651-661. doi: 10.1016/j.indmarman.2006.04.003
- Kirzner, I. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, 35, 60-85.
- Kuratko, D.F., & Audretsch, D.B. (2013). Clarifying the domains of corporate entrepreneurship. *International Entrepreneurship Management Journal*, 9, 323-335. doi: 10.1007/s11365-013-0257-4
- Kusa, R. (2015). Rozwój organizacji i proces przedsiębiorczości. *Marketing i Rynek*, 5, 696-707.
- Leutner, F., Ahmetoglu, G., Akhtar, R., & Chamorro-Premuzic, T., (2014). The relationship between the entrepreneurial personality and the Big Five personality traits. *Personality and Individual Differences*, 63, 58-63. doi: 10.1016/j.paid.2014.01.042
- Lumpkin, G.T., & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21, 135-172.
- Lumpkin, G.T., Moss, T.W., Gras, D.M., Kato, S., & Amezcua, A.S. (2013). Entrepreneurial processes in social contexts: how are they different, if at all? *Small Business Economics*, 40, 761-783. doi:10.1007/s11187-011-9399-3

- Ma, H., & Tan J., (2006). Key components and implications of entrepreneurship: A 4-P framework. *Journal of Business Venturing*, 21, 704-725. doi: 10.2139/ssrn.1552136
- Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, 41, 36-44.
- Maier, F., Meyer, M., & Steinbereithner, M. (2014). Nonprofit Organizations Becoming Business-Like: A Systematic Review. *Nonprofit and Voluntary Sector Quarterly*, 1-23. doi:10.1177/0899764014561796
- McGrath, R.G., & MacMillan, I.C. (2000). *The Entrepreneurial Mindset: Strategies for Continuously Creating Opportunity in the Age of Uncertainty*. Boston, MA: Harvard Business School Press.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770-791.
- Morris, M.H. (1998). *Entrepreneurial Intensity: sustainable advantages for individuals, organizations and societies*. Westport CT: Quorum Books.
- Morris, M.H., & Kuratko D.F. (2002). *Corporate Entrepreneurship. Entrepreneurial Development within Organizations*. Thomson South-Western.
- Morris, M.H., Webb, J.W., & Franklin, R.J. (2011). Understanding the Manifestation of Entrepreneurial Orientation in the Nonprofit Context. *Entrepreneurship Theory and Practice*, 35(5), 947-971. doi: 10.1111/j.1540-6520.2011.00453.x
- Pearce, J.A.II, Fritz, D.A., & Davis, P.S. (2009). Entrepreneurial Orientation and the Performance of Religious Congregations as Predicted by Rational Choice Theory. *Entrepreneurship Theory and Practice*, 34(1), 219-248. doi: 10.1111/j.1540-6520.2009.00315.x
- Schillo, S. (2011). Entrepreneurial Orientation and Company Performance: Can the Academic Literature Guide Managers? *Technology Innovation Management Review*, November, 20-25.
- Shane, S., & Venkatraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25, 217-226.
- Sharma, P., & Chrisman, J.J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 23(3), 11-28.
- Stevenson, H.H., Roberts M.J., & Grousbeck H.I. (1989). *New Business Ventures and the Entrepreneur*. Homewood, IL: Irwin.
- Stevenson, H.H., & Jarillo J.C. (1990). A Paradigm of Entrepreneurship: Entrepreneurial Management. *Strategic Management Journal*, 11(4), 17-27.
- Terjesen, S., Lepoutre, J., Justo, R., & Bosma, N. (2011). *Global Entrepreneurship Monitor Report on Social Entrepreneurship. GEM: Global Entrepreneurship Monitor*. Global Entrepreneurship Research Association.
- Verreynne, M.L., Miles, M.P., & Harris, C. (2013). A short note on entrepreneurship as method: a social enterprise perspective. *International Entrepreneurship Management Journal*, 9, 113-128. doi: 10.1007/s11365-012-0239-y
- Yunus, M. (2011). *Przedsiębiorstwo społeczne. Kapitalizm dla ludzi*. Warszawa: ConCorda.
- Zahra, S.A. (1991). Predictors and Financial Outcomes of Corporate Entrepreneurship: An Exploratory Study. *Journal of Business Venturing*, 6(4), 259-286. doi: 10.1016/0883-9026(91)90019-A
- Żur, A. (2013). Entrepreneurial Orientation and Firm Performance – Challenges for Research and Practice. *Entrepreneurial Business and Economics Review*, 1(2), 7-27. doi: 10.15678/EBER.2013.010202

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Involving Young People in Polish and Lithuanian Social Enterprises by Fostering Entrepreneurial Skills and Abilities as Entrepreneurial Opportunity at University

Jolita Greblikaite, Włodzimierz Sroka, Neringa Gerulaitiene

ABSTRACT

Objective: The paper aims to analyse theoretically and empirically the development of social entrepreneurship in Poland and Lithuania, emphasizing the development of appropriate skills and abilities gained at university as entrepreneurial opportunity.

Research Design & Methods: The research undertaken for the purposes of the paper is based on a literature review and empirical research partly devoted to a situational analysis of social entrepreneurship in Poland, as well as a pilot survey of target groups pertaining to the entrepreneurial skills and abilities as entrepreneurial opportunity of Lithuanian and Polish students as potential social entrepreneurs.

Findings: The main research findings imply that despite the existence of entrepreneurial opportunity as education at university, social entrepreneurship is increasingly important in Poland. Overall support is needed for the creation of social enterprises and attracting young people to them. Empirical research based on Lithuanian and Polish students' perception of acquiring entrepreneurial skills and abilities at university can be entrepreneurial opportunity for social entrepreneurship.

Implications & Recommendations: Implementing further research in the field, as empirical this research was just a pilot one. Research can be developed by taking into account more respondents in both countries.

Contribution & Value Added: The study provides empirical evidence entrepreneurial skills and abilities gained/developed at university are a possible entrepreneurial opportunity for exploiting and creating social enterprises.

Article type: research paper

Keywords: social entrepreneurship; entrepreneurial opportunities; entrepreneurial skills and abilities; young entrepreneurs

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INTRODUCTION

The European Union (EU) is subject to a rather complicated situation in terms of employment of young people. This relates to several European countries, especially Greece and Spain; however, in both Lithuania and Poland, a somewhat difficult situation on the labour market exists as well. The demographics of unemployment show that a significant proportion of the unemployed are youths. The EU suggests and promotes numerous instruments aimed at reducing the level of unemployment amongst young people. One of these instruments is the development of entrepreneurial skills and abilities among young people and subsequently attracting those young people to business in order to bring the ideas they have to fruition. Numerous examples of 'good practice' might be found in other EU countries – therefore it is of vital importance to use those examples appropriately in EU countries.

The analysis is focused on the situation in Poland and Lithuania in terms of solving economic and social problems through the involvement of young people in entrepreneurship; especially social enterprises. Prior research in the field covers many spheres and viewpoints researching social entrepreneurship. Thomson (2002), Drayton (2002), Korosec and Berman (2006), Peredo and McLean (2008) defined characteristics of social entrepreneurs. Mair and Marti (2006) analysed different combinations of resources implementing social activity, Hausner (2008) was analysing the role of social entrepreneurship, Zahra, Gedajlovic, Neubam and Shulman (2009) analysed the concept of social entrepreneurship, including entrepreneurial opportunities, Doherty, Haugh and Lyon (2014) analysed social value creation peculiarities. In the context of this paper, other analysed research works might be grouped as analysing some special issue of entrepreneurship as entrepreneurial opportunities. Casson (1982), Shane and Venkataraman (2000), Shane (2003), Ardichvili, Cardozo and Sourav (2003), Davidsson and Honig (2003), Audretsch and Acs (2003), Dutta and Crossan (2005), Shepherd and DeTienne (2005), Dimov (2007), Aldrich and Martinez (2007), Plummer, Haynie and Godesiabois (2007), Davidson (2008), Smith, Matthews and Schenkel (2009), Ucbasaran, Westhead and Wright (2009), De Jong (2009), Short, Ketchen, Shook and Ireland (2010), Fuentes *et al.* (2010), Soderqvist (2011), Dahlqvist, Wiklund (2012). Jesensky (2013) analysed different aspects of entrepreneurial opportunities possibly actual in social enterprises creation. Despite analysed research, the research fulfilled in this article focuses on less analysed field as authors trying to develop social entrepreneurship creation possibilities through accepting entrepreneurial skills and abilities as entrepreneurial opportunity especially for young people involvement in social enterprises creation.

The scientific problem of the article pertains to the question of how to improve the environment for entrepreneurial development in Poland and Lithuania, and attract young people to business in order to exploit entrepreneurial opportunities for creating social enterprises. The subject of the research is social entrepreneurship, based on the support of social entrepreneurship through the education and teaching of appropriate skills and abilities at university as entrepreneurial opportunity. The research aim is to analyse theoretically and empirically the development of social entrepreneurship in Poland and Lithuania, emphasizing the development of appropriate skills and abilities gained at university as entrepreneurial opportunity. The research tasks are:

1. To analyse entrepreneurial opportunities of social entrepreneurship development focusing on entrepreneurial skills and abilities;
2. To evaluate the potential and situation of social entrepreneurship development, especially in the case of social enterprises in Poland;
3. To present comparative analysis of pilot empirical research into entrepreneurial skills and abilities gained at university as entrepreneurial opportunity in Lithuania and Poland;
4. To provide recommendations and suggestions on how to engage young people in entrepreneurship, especially social enterprises, integrating the education process in the overall support system for entrepreneurship in Poland and Lithuania.

The first part of the article is devoted to presenting the essential issues related to the analysed object from theoretical viewpoint: the concept of social entrepreneurship and its dimensions are presented; entrepreneurial skills and abilities are analysed as entrepreneurial opportunity for deeper analysis of social entrepreneurship involving young people. Second part of the article presents the methodological assumptions applied to empirical research. Third part presents the results and discussion of situation analysis in Poland and pilot empirical research results about fostering and developing entrepreneurial skills and abilities at university for developing social entrepreneurship in Lithuania and Poland. In the end, some conclusions and recommendations are provided.

LITERATURE REVIEW

Entrepreneurship itself is analysed in a vast number of different scientific publications. Different angles of analysis are chosen and various aspects have been researched. In the framework of the scientific problem raised in this article, it is most important to review and analyse the scientific works on the concept of social entrepreneurship and entrepreneurial opportunities and the exploitation thereof, paying attention to the place of entrepreneurial skills and abilities in this context.

Concept of Social Entrepreneurship

In recent decades, entrepreneurship research has focused on social value, influence on and interaction with society and has been preconditioned to the foundations of social entrepreneurship and analysis. Zahra *et al.* (2009), in summarising various assumptions on social entrepreneurship, state that social entrepreneurship encompasses the activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating new ventures or managing existing organisations in an innovative manner. A social entrepreneur simply might be someone who organises and/or operates a venture or corporation, which fulfils social goals (Peredo & McLean, 2006).

The role of communities is especially stressed in the context of social entrepreneurship. Korosec and Berman (2006) define social entrepreneurs as individuals or private organisations that take the initiative to identify and address important social problems in their communities. According to Thompson (2002), social entrepreneurs are also said to possess the qualities and behaviours generally associated with business entrepreneurs,

but they operate in communities and are more concerned with caring and helping than with making money. The approach of social entrepreneurship unites business and communities, and the essence of it relies upon the coherence of business and society. The term 'social enterprise' links two main attributes: 'entrepreneurship' and 'community'. The first means that it relates to the organisation, which conducts business that is associated with the economic risk and verification of the effects of this economic activity. In turn, the second attribute, i.e. 'community', indicates on the one hand the basic resources that are used by the company (based on social capital, shaped within a particular community), and, on the other hand, its mission (the activity of the company is focused on social integration within the local community and its main aim is to prevent social exclusion through professional elicitation and activity) (Hausner, 2008, p. 10).

The other important aspect in any discussion of social entrepreneurship relies upon the allocation of resources, which leads to the creation of new enterprises. Mair and Marti (2006) perceive social entrepreneurship as a process of creating value by combining resources in new ways. Secondly, these resource combinations are intended primarily to explore and exploit opportunities to create social value by stimulating social change or meeting social needs. Third, researchers viewing social entrepreneurship as a process emphasise that it involves offering services and products, but can also refer to the creation of new organisations. The authors argue that the profit motive of entrepreneurship can be a partial motive for social entrepreneurship as it might be presumed that the motives for social entrepreneurship can be, for example, personal satisfaction or fulfilment. It is also said that entrepreneurship in the business sector also has a social aspect. Drayton (2002) emphasises the strong ethical fibre of the entrepreneur. Societal focus appears strongly related to the character of entrepreneurs, as such; people are frequently very active in society because of the nature of their behaviour and character features, as well as the skills and abilities, which the social entrepreneur possesses.

The dual mission – financial and social sustainability – of social enterprises shapes the processes of opportunity recognition and exploitation in that value capture is tied, either directly or indirectly, to social value creation (Doherty *et al.*, 2014). Such a hybrid nature of social enterprises increases the complexity of management processes. In these enterprises, the activities of different partnerships are involved as well (Thompson, 2002; Doherty *et al.*, 2014).

Two distinct types of problems are frequently solved by social enterprises. The first one is financing problems, which are related to the social mission of such enterprises and without any defined profit because of their activity. Social enterprises lack support from traditional financing institutions. Therefore, the demand for special financing instruments remains in this sector.

The other group of problems inherent in social enterprises is related to human resource management. Social enterprises suffer shortages in terms of the skilled labour force, sometimes due to financial problems, sometimes perhaps related to the specific activity of social enterprises. Attracting volunteers and minor groups is a specific issue with different managerial aspects. Work with minor groups' demands managerial capabilities and the skills effectively solve various situations and concerns arising from casual activity. Voluntary work has its own issues based on, for example, unpredictable resources in the appropriate moment, the motivation of the work force, the amount of

free time allocated to different tasks, and so on. However, it should be taken into consideration that volunteers in most cases are young people, especially students. That could become a precondition for the involvement of young people in creating social enterprises. They are often full of entrepreneurial ideas and need to see entrepreneurial opportunities and exploit them.

Entrepreneurial Opportunities for Social Enterprise Creation: Focus on Entrepreneurial Skills and Abilities Gained at University

Without an opportunity, there is no entrepreneurship (Jesensky, 2013). Shane and Venkataraman (2000) state that to have entrepreneurship, we must first have entrepreneurial opportunities. A potential entrepreneur can be creative and hardworking, but without an opportunity, entrepreneurial activities cannot take place (Short *et al.*, 2010). According to this, social entrepreneurship without entrepreneurial opportunity cannot take place.

Entrepreneurship involves the nexus of entrepreneurial opportunities and enterprising individuals. This nexus indicates that opportunities are an important part of the entrepreneurial process (Shane, 2003). Opportunity is a central concept within the field of social entrepreneurship. Understanding entrepreneurial opportunities is important because the characteristics of an opportunity influence the entrepreneurial process (Shane, 2003).

Following Casson (1982), Shane and Venkataraman (2000), Eckhardt and Shane (2003) defined entrepreneurial opportunities as situations in which new goods, services, raw materials, markets and organising methods can be introduced through the formation of new means, ends, or means-ends relationships.

An entrepreneurial opportunity is more accurately described as an opportunity to engage in entrepreneurial action, in which entrepreneurial denotes a sub-class of some broader category of human action, which is motivated by profit. The adjective 'entrepreneurial' is used to qualify the manner by which this profit is sought – i.e. through the introduction of new goods or services (Companys & McMullen, 2007).

Entrepreneurial opportunities can be represented as a stream of continuously developed ideas, driven and shaped by one's social interaction, creative insights, and action at each stage of entrepreneurship (Dimov, 2007).

Entrepreneurial opportunities consist of a set of ideas, beliefs and actions that enable the creation of future goods and services in the absence of current markets for them (Shane & Venkataraman, 2000). Entrepreneurial opportunity consists of new idea/s or invention/s that may or may not lead to the achievement of one or more economic ends that become possible through ideas or inventions; beliefs pertaining to factors favourable to the achievement of those possible valuable ends; and actions that generate and implement those ends through specific economic artefacts (the artefacts may be goods such as products and services and/or entitles such as firms and markets, and/or institutions such as standards and norms) (Audretsch & Acs, 2003).

Shane and Venkataraman (2000) have argued that entrepreneurial opportunities are "objective phenomena", existing in time and space even though they may not be known to all people at all times (Companys & McMullen, 2007). Holcombe (2003) opined that the information needed to seize some entrepreneurial opportunities comes from sources available in principle to everyone, although recognising that information that a person

acquires constitutes an entrepreneurial opportunity may also require some specific knowledge of time and place. The duration of any opportunity depends on a variety of factors – such as patent rights, information diffusion, or the inability of others to imitate (Shane & Venkataraman, 2000).

Social enterprises have to pay attention to three valuable ways of categorising opportunities: by the locus of changes that generate the opportunity; by the source of the opportunities themselves; and by the initiator of the change (Eckhardt & Shane, 2003).

Schumpeter (1934) suggested in brief detail five different loci of these changes: those that stem from the creation of new products or services, those that stem from the discovery of new geographical markets, those that emerge from the creation or discovery of new raw materials, those that emerge from new methods of production, and those that are generated from new ways of organising.

Prior research suggests four important ways of categorising opportunities by sources. The first involves considering differences between opportunities that result from asymmetries in existing information between market participants and opportunities that result from exogenous shocks of new information. The second comparison lies between supply- and demand-side opportunities. The third differentiates between productivity-enhancing and rent-seeking opportunities, and the fourth lies in identifying the catalysts of change that generate the opportunities.

The final dimension by which opportunities have been classified is by the actor that initiates the change. Different types of entities initiate the changes that result in entrepreneurial opportunities, and the type of initiator is likely to influence the process of discovery as well as the value and duration of the opportunities. Among the different types of actors that researchers have identified are non-commercial entities, such as governments or universities; existing commercial entities in an industry, such as incumbents and their suppliers and customers; and new commercial entities in an industry such as independent entrepreneurs and diversifying entrants (Eckhardt & Shane, 2003).

To sum up, an entrepreneurial opportunity could arise from the locus of the change, the source of the opportunities themselves and the initiator of the change. As claimed by Fuentes, Arroyo and Perez (2010), if opportunities exist, why are they not exploited? The answer is clear: the process of identifying and subsequently exploiting opportunities is complex and involves some “discovery costs” (Casson & Wadeson, 2007).

Entrepreneurial opportunity exploitation is part of the entrepreneurial process. According to Davidson (2008), the exploitation process is defined in terms of entrepreneurial actions or behaviours, such as resource acquisition and coordination and market making, networking, and business planning, which are aimed at the fulfilment of a venture concept. Exploitation is associated with the full-scale operation, which requires the full commitment of the new venture's resources in building efficient production and business systems (Choi & Shepherd, 2004).

Entrepreneurial opportunity exploitation is explained by the ability to execute a new venture, which is driven by motivation, the ability to mobilise resources and control the new organisation (Aldrich & Martinez, 2007; Dahlqvist & Wiklund, 2012). Social enterprises could be one of the results of entrepreneurial opportunity exploitation.

Zahra, Korri and Yu (2005) emphasise that only during the process of exploiting an opportunity is the opportunity actually created (Soderqvist, 2011). Opportunities are

usually exploited only when human beings decide to act (De Jong, 2009). As claimed by Zahra *et al.* (2005), the exploitation of opportunities always involves uncertainty and risk (Soderqvist, 2011). Opportunity exploitation also correlates with individuals' attitude and perceived subjective norms towards the opportunity, and perceived behavioural control in order to successful implementation of opportunity (De Jong, 2009). Moreover, successful opportunity exploitation depends on opportunity characteristics, the environment, and the entrepreneur's individual motives (Plummer *et al.*, 2007).

An entrepreneur starting a venture is strongly attached to the opportunity and tends to avoid any exit from the venture process. Rather, when an opportunity seems unviable (perhaps because a competitor has moved faster on it) entrepreneurs are likely to modify it or move onto a new, but related, opportunity (Choi, Levesque & Shepherd, 2008).

Shane and Venkataraman (2000) state that the exploitation decision is influenced by both the nature of the opportunity and by individual differences. The former refers to aspects such as the expected return provided by the opportunity, the costs involved, its lifespan as well as the level of demand. The latter implies that there are also differences between people regarding how much risk they are willing to take.

As Ardichvili *et al.* (2003) argue, the most important factors that influence the recognition and exploitation of opportunities are the entrepreneur's alertness to such opportunities, asymmetrical information and prior knowledge, social networks, the personality traits of the entrepreneur and the nature of the opportunity itself. Roure, González, Nieto, García and Solís (2007) find that the number of new firms depends on the externalities of knowledge of a region and the entrepreneur's possession of abilities and knowledge.

There are three main determinants influencing entrepreneurial opportunity exploitation: prior knowledge, personal traits and social networks (Shane, 2003). The role of prior knowledge and learning in the identification and exploitation of entrepreneurial opportunities has received consistent attention in the literature (Dutta & Crossan, 2005; Dimov, 2007; Smith *et al.*, 2009; Ucbasaran *et al.*, 2009).

Prior knowledge comes from various sources: education, personal history, and work experience, advice from experts, imitation and copying (Davidsson & Honig, 2003; Shepherd & DeTienne, 2005). Different external sources of prior knowledge can help social enterprises recognise and exploit different types of opportunities.

Choi and Shepherd (2004), in analysing the major dimensions of prior knowledge, suggest that entrepreneurs are more likely to exploit opportunities when they have more knowledge of customer demands for new products, or they have more fully developed the necessary technologies or greater managerial capability (Fuentes *et al.*, 2010). According to von Hippel (1994), people tend to notice information that is related to information they already know. Shane (2000) postulated that entrepreneurs would discover opportunities because prior knowledge triggers recognition of the value of the new information. Drawing on the Austrian economics argument that entrepreneurship exists because of information asymmetry between different actors (Hayek, 1945), Shane maintains that any given entrepreneur will discover only those opportunities related to his or her prior knowledge. To sum up, prior knowledge has an important role in the exploitation of entrepreneurial opportunities. It triggers the creation of social enterprises. Social entrepreneurs are more successful if they have sufficient prior knowledge. It can be

presumed that entrepreneurial skills and abilities might be entrepreneurial opportunity as well as raise itself entrepreneurial opportunities.

In summary, without an entrepreneurial opportunity, there is no social entrepreneurship, and only during the process of exploiting an opportunity is that the opportunity is actually created. An entrepreneurial opportunity could arise from the locus of the change, the source of the opportunities themselves and the initiator of the change. The main determinants influencing entrepreneurial opportunity exploitation are prior knowledge, personal traits and social networks. All of these determinants have an impact on the success of a social enterprise. Prior knowledge enables young social entrepreneurs to exploit entrepreneurial opportunities. The source of this prior knowledge could successfully augment education gained at university, providing appropriate entrepreneurial skills and abilities for young social entrepreneurs.

The contribution to the research area of social entrepreneurship development through entrepreneurial skills and abilities development at university as entrepreneurial opportunity is not researched enough and the linking these two-research objects presumably might lead to improvement of social entrepreneurship implementation. Social entrepreneurship research especially in Poland and Lithuania is lacking, as the object is rather new for analysis worldwide and especially in these countries. Especially practical implementation questions are discussed quite fragmentally and lack deeper analysis. Scientific discussion on social entrepreneurship mostly takes place on a conceptual level: what it is, what functions are fulfilled by phenomena, what benefit is created by implementing it. This paper seeks to make a contribution to the theory combining theoretical and empirical research to entrepreneurial skills and abilities as entrepreneurial opportunities preconditioning social enterprises creation.

MATERIAL AND METHODS

The empirical part of the article is based on situation analysis, document analysis and pilot target survey analysis. There are two main aims of our study: 1) the empirical research aim is to evaluate the potential of social entrepreneurship development, with an emphasis on Poland, and 2) to present the analysis of empirical research on entrepreneurial skills and abilities gained at university (entrepreneurial opportunity) in Lithuania and Poland. Both the situation and document analysis are designed to analyse the potential and development of social entrepreneurship in Poland, focusing attention on social enterprises and youth involvement in this activity. The analysis is focused on the economic, political, legal and social environments. Emphasis is placed on the education system as an entrepreneurial opportunity for social entrepreneurs. Qualitative research as empirical research method is selected as mostly appropriate.

The pilot target survey analysis is fulfilled in target groups of students (Kaunas University of Technology, Master students, Study programme – International Business, $n = 20$, year 2013, 2014; called Group A in the Results section). Target group B is students of Polish Dabrowa Gornicza University, studying International communication ($n = 22$, year 2016). This target survey is kept as pilotage one (authors wanted to analyse the approach of young students from two neighbouring countries to the issue of entrepreneurship). The results obtained could be then further developed on larger samples. Therefore, authors decided to choose two relatively small groups of students consisting

of ca. 20 people especially for confirmation of necessity of such research and further improvement of questionnaire as an instrument for research as well as such sample selection was based on such assumptions as:

- Lithuanian students' group was listener of special Entrepreneurship course;
- Polish students' group was non-listeners of any special course of Entrepreneurship.

Such differences allow comparing in general very different groups and making assumptions based on similarities and distinctions in both target groups as empirical research object. It should be stressed that this research is unique in its construct and fulfilled in Lithuania and Poland without existing similar research results. The research is not focusing on the education of entrepreneurial skills and abilities, its techniques or methods. The research is focuses on entrepreneurial opportunity creation through teaching social entrepreneurship at universities, colleges or even schools for inspiring young people for becoming social entrepreneurs.

Lithuanian Target group A students were participants in the teaching course 'Entrepreneurship and good practice examples of SMEs'. The questions in the survey were similar for all target groups:

1. Have you ever attended a course on entrepreneurship? If yes, name the course.
2. What is your opinion about the background of entrepreneurs: are entrepreneurs born or can they be made?
3. Which features of character do you think are most important in terms of entrepreneurial activity? How might these features be developed during tertiary study?
4. What entrepreneurial skills and abilities might be developed during tertiary study?
5. What conditions or/and measures could strengthen entrepreneurial potential at university?
6. To what extent is the analysis of best practice or good practice important to the development of entrepreneurial spirit?
7. What new methods or measures could be appropriate for the development of entrepreneurial skills and abilities at university? Should some special attention be paid to an understanding of social entrepreneurship?
8. How important is the complex learning and education process of entrepreneurial skills and abilities when it is undertaken at the primary, secondary and tertiary stages of education respectively?
9. What is the most important factor in successful entrepreneurial education and the implementation of entrepreneurial ideas in practice?
10. Social entrepreneurship, social entrepreneurs, social enterprises, and social innovation are priorities in the developing economy in Lithuania and throughout the EU. Have you heard of them and would you be interested in finding out more about the management of social enterprises during your studies?

The interpretation of results is presented in the next section. The results are also compared to those of another target survey undertaken at X University in EU where the respondents were representatives of international students ($n = 11$, year 2015; target group called Group C) participating in the 'European civilisation history and culture' course and studying the Bachelor programme of Business Management. The selection of the group was based on their internationalization, seeking to make an advanced compar-

ison of different study experiences. It must be stressed that this Group C does not represent any particular country results (not Poland nor Lithuania). In analysing the results of this focus group (international students at X University), it became apparent that just one respondent was involved in the entrepreneurship course in reality, meaning that this target group is rather different from the previous one Target group A. The questions were the same as those mentioned above and used to target group A, B, and C.

RESULTS

Social Entrepreneurship in Poland: Situation Analysis

Social Entrepreneurship in Poland: a Historical Approach

Nowadays in Poland, there is a depth of discussion on social entrepreneurship taking place. Among numerous publications, several studies are worth mentioning. A study by Hausner (2008) provides a comprehensive scientific analysis on the conditions for the establishment and activities of social enterprises in Poland (the genesis and specificity of social enterprises, their institutional fixation and the related regulations, as well as Polish and international good practices concerning the establishment and activities of social enterprises). Both areas of activity of enterprises and their financial structure have been described in detail. In turn, Ciepielewska-Kowalik (2013, 2015) raised different topics in her studies, which were mostly concentrated on trends and challenges for social enterprises in Poland, models of social enterprises, and the institutional and historical context of social enterprises in the country. Leś (2004) as well as Leś and Ciepielewska-Kowalik (2014) focuses her deliberations on cooperatives, as well as trends, challenges and obstacles in the social economy sector. Finally, Kurleto (2013) analyses the possibility of the application of American solutions in the sphere of social entrepreneurship in Poland.

Generally, it is necessary to state that social enterprise organisations in Poland have strong and complicated traditions, dating back to long before the Second World War (Ciepielewska-Kowalik, Pielniński, Starnawska & Szymańska, 2015; Herbst, 2008). In some cases (e.g. cooperatives), they even appeared before the beginning of the nineteenth century, since when they have undergone turbulent periods of change. Three basic historical periods of the development thereof may be distinguished (Ciepielewska-Kowalik *et al.*, 2015):

- the period prior to the Second World War (the first period),
- the period during Communist rule, i.e. between 1945 and 1989 (the second period),
- the transition period, after 1989 (the third period).

There were significant differences between the particular sub-periods regarding the perception of social enterprises as well as actions taken. There were also some similarities, especially between the first and second period. The real re-interest in the concept of the social economy as an instrument of social policy increased substantially during the third period, and especially after accession to the EU (Kurleto, 2013; Greblikaite, Sroka & Grants, 2015).

Despite these facts, it is necessary to mention that no comprehensive research has been conducted in Poland to measure the nationwide development of social entrepreneurship. The available analyses relate to selected aspects of the phenomenon or a par-

ticular region, case studies and reports on programmes oriented towards the development of social entrepreneurship (Kusa, 2012), and despite growing interest in social entrepreneurship among scholars over the last two decades, the literature on social entrepreneurship still remains diffuse and fragmented (Austen-Tynda, 2008).

Social Enterprises in Poland: Selected Data and Key Factors of Development

There is no official data on the number of social enterprises in Poland. One estimates that in 2012 there were around 5200 entities in Poland, which could be classified as social enterprises by applying the EU Operational Programmes, employing around 70 000 people. This represents around 0.3% of all registered and active enterprises (including sole trader ships) and around 0.4% of the total employment in the economy (European Commission, 2014). Social enterprises play an important role in work integration activities for groups endangered by social exclusion, which specifically affects the long-term unemployed, homeless, addicts and the isolated (Kožuch & Žukovskis, 2014). They also provide a wide variety of services of general economic interest such as education, social care services, as well as other specialised services.

Given the data presented, the Polish Government promotes social entrepreneurship. Therefore, a National Programme for Social Economy Development (KPRES) was implemented and now has the status of an official government document. It is the first comprehensive legal act that fully recognises the social economy in Poland, and determines the key directions of public support for the social economy. This act defines the activities, which should be undertaken by the Polish public authorities to strengthen the sector of the social economy. As a result, the position of the social economy has been given new developmental opportunities. According to the KPRES Programme, organisations of the social economy are to have several major goals, such as to integrate the socially excluded (or those threatened by social exclusion), to create workplaces, to provide welfare services, and to support local development. It should also contribute significantly to employment growth, social coherence, and the development of social capital.

The growth of social enterprises in Poland does not necessarily mean that there is no need to support them. On the contrary, there are several forms of support for social enterprises, which were indicated by the representatives of this sector. The most important include direct subsidies, as well as preferential loans and credits. On the other hand, the European Commission (2014) claims that there are no specialist investors or intermediaries investing in or offering financial products to social enterprises in Poland. In theory, social enterprises may borrow on the same terms as mainstream enterprises, albeit in practice, demand for financing appears very limited and access is limited. Grant funding is available to social economy entities from structural funds programmes.

There are also a limited number of financial instruments specifically aimed at social economy entities including social enterprises. They include two commercial loan funds:

- The Polish-American Community Assistance Fund (PAFPIO) financing non-governmental organisations,
- TISE financing all social economy entities.

In addition, one can find examples of small local initiatives such as microloan and guarantee funds and social venture capital funds that are piloted from time to time. Another example could be certain regional funds, such as the Fund for Social Economy in

Małopolska (Małopolski Fundusz Ekonomii Społecznej), which was established in 2009 by private and public entities and specialises in the provision of credit guarantees for social enterprises. To date it has provided 103 guarantees and small loans totalling 1.2 million EUR, contributing to the creation of 32 social cooperatives and 35 microenterprises (European Commission, 2014).

When speaking on other forms of support of social entrepreneurship in Poland, one may mention access to free information and advice services, a wider promotional range, as well as the use of guarantee funds and credit guarantee funds. These, however, are regarded as the least important form of support (Hausner, 2008). Fortunately, there are some positives in this regard. For example, as was stated by Starnawska (2011), the promotion of social enterprise and social entrepreneurship has been undertaken by several initiatives. One of them is a national competition for Social Enterprise of the Year, introduced in 2011 by the Foundation of Social and Economic Initiatives (FISE). Another such initiative is the world-renowned program by Ashoka Foundation that has been identifying its fellows in Poland since 1995. An additional initiative, which promotes social enterprise, comes from other international programmes, such as NESST and the JPMorgan Chase Foundation, which have announced the first awards for the best business plan from a social enterprise in 2014. Generally, it is necessary to state that although these initiatives and programs are varied in their scope and aims, they contribute to the promotion of social enterprise and the development of social entrepreneurship in Poland.

Barriers to the Growth of Social Entrepreneurship in Poland

Despite the dynamic growth of social enterprises, there are a number of barriers to their development, which include the accumulation of negative, social and economic features in rural and underdeveloped areas, lack of trust in the initiatives undertaken by social enterprises, the low level of activity of local communities, lack of social trust in partnership-building skills and collaboration in achieving common objectives and lack of cooperation between social enterprises (Greblikaite *et al.*, 2015). A large group of representatives of social enterprises surveyed were also of the opinion that it is easier to find an employee or customer by concealing the social nature of the business.

A very important factor in weakening the position of the social enterprises operating in the market is to treat them under the law as non-governmental sector entities. The result of this treatment is the existence of a kind of social enterprise discrimination when compared to commercial entities. This type of discrimination is particularly evident in access to preferential training and raising funds for investment. Furthermore, these companies are not recognised by law as non-governmental organisations, and cannot obtain financial funds in a similar manner.

Despite the problems mentioned, it is possible to surmise that the development of social entrepreneurship should be expected to continue, driven by both demand and the capacity of social entrepreneurship to meet this demand. Despite systematic progress in all areas of life, social needs, exclusion or stratification continue apace. Societies have limited public resources to tackle social problems. On the other hand, increasing numbers of individuals have the capabilities (including time and skills) to join the process of finding solutions to social problems. The standards of enterprise knowledge and skills are rising and can be taken advantage of to solve problems of a social nature (Kusa, 2012).

The Role of the Educational System in Poland

The education system plays an important role in shaping and developing social entrepreneurship in Poland. It is said that the only effective method of teaching social entrepreneurship is learning it in practice and drawing upon good examples of successfully prospering social enterprises. Despite this fact, the vast majority of experts claim that the Polish education system currently plays no significant role in developing the idea of social entrepreneurship. Generally, too little attention is paid to education and shaping a positive attitude towards social economy, social commitment and responsibility. Unfortunately, the Polish education system tends to focus on test scores and the race towards better work, and universities in Poland prepare students by providing general knowledge (Praszkiern, Zabłocka-Bursa & Jozwik, 2014, pp. 24-25). Meanwhile, students should already gain work experience during their studies, and should learn how to establish relationships, participate in building a variety of initiatives, as well as participate in foreign internships. Practical issues are extremely important in education but unfortunately completely neglected at this point. Polish employers have also empirically confirmed this thesis.

Although the Polish education system has introduced a subject called “Entrepreneurship” in secondary and high schools, there are no qualified teachers who could teach it. Therefore, “Entrepreneurship” is usually taught by a teacher of another subject and treated by the students, as well as their parents, as “something unnecessary” or “a subject which can improve your general average grade”. The entrepreneurship classes lack any element of practical experience and there is no place for any innovation.

Despite this rather “dark” picture of the role of the educational system in entrepreneurship, there are, however, some positive factors. As an example, the Polish Ministry of Education and Sport has attempted to introduce 25 interesting and innovative projects aimed at instruction of the Entrepreneurship subject by providing numerous grants for the creation of innovative curricula and the pilot implementation of these programs (Praszkiern *et al.*, 2014, pp. 24-26). An average student should learn that entrepreneurship is a certain activity, a way of thinking about and treating problems. It is also crucial to sensitise students to the common good, to educate young citizens to develop their social skills and empathy. Furthermore, it is important to present students the idea of community and to familiarise them with the local environment.

However, in order to teach well, a society and its rulers should learn at the beginning what social entrepreneurship really is and apply it to the education system thereafter. Schools, at every level of education, should teach both the theory and practice of social entrepreneurship, and should distinguish and teach what social entrepreneurship, social entrepreneurs and social enterprises are. It requires a whole new generation of initiators and those who can prove it to be possible (Praszkiern *et al.*, 2014, p. 26).

The situational analysis revealed that social entrepreneurship is quite slowly developing in Poland. Additional attention is needed in all levels for further improvement of situation. Special attitude should be put on young people as potential for creating social enterprises. Entrepreneurial skills and abilities gained and/ or developed at university might be effective entrepreneurial opportunity created for starting social business. Empirical research seeks to emphasize the importance of such an opportunity.

Development of Entrepreneurial Skills and Abilities at University as Entrepreneurial Opportunity for Young Lithuanian and Polish Social Entrepreneurs

When researching the opinion of Lithuanian students on entrepreneurship, the development and improvement of skills and abilities, it becomes obvious that students agree that the teaching process can reinforce the desire and opportunity to become entrepreneurs. According to the opinions of the student target group A (Lithuanian students), the main characteristics such as confidence, risk-taking, courage, creativity, seeking adventure, opportunity creation, leadership, flexibility, originality, innovativeness, spontaneity, communicativeness, capability of decision-making, competitiveness, and persistence might be enforced in the study process. The means to the development of such characteristics could be situation and case study analysis, discussions, teamwork, model creation and decision-making, listening to success stories, as well as various improvisations.

Analysing the results of target group B (Polish students) it should be mentioned that just three of students were attending the course of entrepreneurship. None of them declared of some knowledge about social entrepreneurship. As potential measures for raising young entrepreneurs respondents emphasized the important role of practical examples, features of character such as imagination, adaptiveness were mentioned.

As the most important features of character for entrepreneurial activity, the respondents from target group C indicated: open-mindedness, social ability, management skills, financial and economic knowledge, creativity, responsibility, reliability, leadership, communication skills, languages, self-confidence, risk-taking, positivity, and flexibility. These characteristics could be supported at university by special courses, as well as scientific literature on entrepreneurship.

During the study process, certain entrepreneurial skills and abilities might be introduced and developed as well. According to group A, analytical thinking, adaptiveness to innovation, grounded decision-making, situation and environmental analysis, knowledge of new technologies, organisational skills, communication skills, creativity, responsibility, teamwork, and effective knowledge management might be introduced and/ or developed during tertiary study. For personal features development at university becoming entrepreneur target group B students named knowledge gained at university and teamwork as potential measures.

The most effective measures at university for impetus in creating young entrepreneurs might be: analysis of examples of success; cooperation between the science and business sectors; teamwork; encouragement of competition; generation of ideas; meeting real entrepreneurs; work experience at entrepreneurial enterprises; and innovative projects. In turn, the respondents from group C indicated management skills, strategic and marketing skills, accounting, organisational skills, communication skills, teamwork, leadership, negotiation skills, analytical thinking, forecasting, networking, flexibility, and encouragement to "free thinking" as entrepreneurial skills and abilities which might be developed during tertiary study.

The most important conditions and/or measures for strengthening entrepreneurial potential at university were given as lectures from current entrepreneurs, practical examples, internships, and project-based activity. As potential measures how to develop entrepreneurial skills and abilities at university target group B students emphasized the

importance of time management, creativity development and internships provided by university.

In terms of the most important factors for raising and developing young entrepreneurs, respondents from target group A emphasised such factors as a systematic approach to raising entrepreneurs from primary education and high schools, and later at college and university; real stories of successful entrepreneurs in Lithuania; cooperation between business and university; entrepreneurs' involvement in the study process, and interdisciplinary education. Such measures might help develop social entrepreneurs as well, given the emphasis on social value. Young people are interested in social activity, which might be the first step towards social enterprise creation. Interdisciplinary study programmes have started to be implemented in Lithuania, which may be classed as one of the entrepreneurial opportunities for developing social entrepreneurs. These results are compared in Table 1.

Table 1. Development of entrepreneurial skills and abilities at university

Group A	Group B	Group C	Comment
Measures of personal entrepreneurial features development			
<ul style="list-style-type: none"> - situation and case analysis; - discussions, teamwork; - model creation and decision making; listening to success stories; - various improvisations. 	<ul style="list-style-type: none"> - teamwork; - appropriate knowledge gaining. 	<ul style="list-style-type: none"> - special courses; - scientific literature on entrepreneurship. 	Lithuanian students, after completing the entrepreneurship course, enumerated further measures on how to develop entrepreneurial features at university.
Measures of ways to develop entrepreneurial skill and abilities at university			
<ul style="list-style-type: none"> - analysis of examples of success; - cooperation between science and business sectors; - teamwork; - encouragement of competition; - generation of ideas; - meeting real entrepreneurs; - work experience at entrepreneurial enterprises; - innovative projects. 	<ul style="list-style-type: none"> - tight schedule with additional activities; - creativity development; - internships. 	<ul style="list-style-type: none"> - lectures from current entrepreneurs; - practical examples; - internships; - project-based activity. 	Group A and Group C had a similar attitude to the question; it means that they proposed measures in the same manner. Group B showed the lack of comprehension on deeper suggestions.
Measures for raising and developing young entrepreneurs			
<ul style="list-style-type: none"> - systematic approach to raising entrepreneurs from primary education and high schools, and later at college and university; - real stories of successful entrepreneurs in Lithuania; - cooperation between business and university; - entrepreneurs' involvement in the study process; - interdisciplinary education. 	<ul style="list-style-type: none"> - involving real entrepreneurs in education process; - strong character development; - practice; - imagination; - adaptiveness. 	<ul style="list-style-type: none"> - managerial skills; - simulations; - traineeships; - good ideas; - planning; - teamwork; - decision making; - critical thinking. 	Group B and C (non-students of the special course) mostly were focused on character and managerial skills development and did not demonstrate a complex view of the problem.

Source: own study.

The students' research disclosed one of the most significant aspects pertaining to the role of education in the development of social entrepreneurs. Students, being young people and potential young entrepreneurs, strongly believe that entrepreneurial skills and abilities might be strengthened or even acquired at university and could be leading to entrepreneurial possibilities. They are interested in finding out more about social entrepreneurship and its peculiarities. It reaffirms the main conclusion that education institutions and the study process might be an appropriate place and an effective instrument for raising and enhancing young social entrepreneurs in Lithuania. The completed research implies future perspectives for the research of some task groups at Polish universities, where students have already been studying course of Entrepreneurship. It might be considered that students who are more experienced internationally, studying at different universities, have different experience. In the same time target group C students exposed weak knowledge in analysed question.

DISCUSSION

The fulfilled analysis and research allowed discovering several important aspects associated with social entrepreneurship in Poland and Lithuania. Students believe that entrepreneurial skills and abilities might be strengthened or even acquired at university. Therefore, one may say that education system plays an important role in shaping and developing social entrepreneurship in both countries. When coming to the details, however, one could see unless there are both similarities as well as differences in this aspect. For example, Polish respondents stressed that despite the fact there are 'Entrepreneurship' topics at the secondary schools, they are generally taught by unqualified teachers. In contrast to this fact, the Lithuanian respondents did not raise this aspect. In turn, both group of respondents generally agree as to the features the potential entrepreneur should have.

Secondly, the results achieved suggest that the education system is a strong tool for social entrepreneurship development providing entrepreneurial opportunities for young entrepreneurs. It requires, however, enforcement and flexibility, a review of study programmes, and especially a constant support from business and society. Lack of these elements will cause that the potential of this will not be fully utilized or even lost.

Thirdly, one seems to us that there is a difference in development level of social entrepreneurship in Lithuania and Poland. Lithuania is a little more advanced in this regard. However, the existence of various entrepreneurial opportunities, especially education at the university, caused that social entrepreneurship has been increasingly attracting interest in Poland and starting to develop very quickly. One of the reason may be the size of the countries analysed: in case of the smaller countries, it is always easier and faster to implement certain solutions. Despite these differences, overall support is needed at economic, political, legal, and social levels for the creation of social enterprises and, especially, for attracting young people to them. It relates to both countries as, based on the experience of Western countries, one may state that there is a big potential in social entrepreneurship.

Fourthly, empirical research based on Lithuanian and Polish students' perception of the development of entrepreneurial skills and abilities at university as entrepreneurial opportunity demonstrate several very positive tendencies and trends. For example, in-

volvement in entrepreneurship attracts more and more interest, and the appropriate skills and abilities can be gained or/and developed at university during the study process. On the other hand, this process still requires further work and analyses, e.g. case studies, presentation of achievements of real entrepreneurs, participation in the business projects etc.

CONCLUSIONS

The literature review undertaken in our paper allows to emphasise the importance of scientific problems raised in the article in the framework of the subject analysed – social entrepreneurship. It is something of a new phenomenon in Poland and Lithuania from both perspectives – research and practice. The EU initiatives strongly support social enterprises and force countries to take the appropriate actions in developing social entrepreneurship while exploiting the entrepreneurial opportunities, which exist or can be created. Theoretical research reveals that education can be regarded as the entrepreneurial opportunity, which can be exploited by young people in terms of gaining entrepreneurial skills and abilities at university.

Empirical research allows concluding that despite fragmental initiatives, the development of social entrepreneurship remains slow in Poland. The role of the education system is not sufficient effectively assist young people in gaining the appropriate entrepreneurial skills and abilities. A similar situation remains in Lithuania in terms of the education system and teaching entrepreneurship – although some initiatives are positive, a lack of any form of systemic approach still exists. Students are keen on learning entrepreneurial skills and abilities but they state that methods and measures could be improved for a more effective study process in the field of entrepreneurship, especially social. Empirical research in Lithuania revealed that education is a powerful tool for inspiring and motivating young people to become the creators of social enterprises. As empirical research remains just pilotage these assumptions could be applied just in similar situations arising applying research instrument. The more respondents should be involved if gaining more explicit results in different Polish and Lithuanian universities, especially focusing on concrete entrepreneurial skill and abilities research, which is important for social entrepreneurship.

In conclusion, it should be mentioned that both countries require better-integrated and well-managed actions in the development of social entrepreneurship and encouraging young people to become creators of social enterprises. Empirical research results provide opportunity to develop study programmes at university based on entrepreneurial skills and abilities development as exposing entrepreneurial opportunity. Empirical research limitations are mostly based on limited target groups. Future research could be based on quantitative method and different countries; especially EU, research as well as research instrument could be different for listeners of specialised *Entrepreneurship* course and non-listeners of such courses.

REFERENCES

- Aldrich, H., & Martinez, M. (2007). Many are Called, but Few are Chosen: An Evolutionary Perspective for the Study of Entrepreneurship. In A. Cuervo, D. Ribeiro, & S. Roig (Eds.), *Entrepreneurship: Concepts, Theory and Perspective* (pp. 293-311). Berlin: Springer.
- Ardichvili, A., Cardozo, R., & Sourav, R. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of business Venturing*, 18, 105-123.
- Audretsch, D.B., & Acs, Z.J. (2003). *Handbook of entrepreneurship research: an interdisciplinary survey and introduction*. New York: Springer.
- Austen-Tynda, A. (2008). Social entrepreneurship in Poland: implications for public management. *Management*, 12(2), 199-212.
- Casson, M.C. (1982). *The Entrepreneur: An Economic Theory*. Oxford: Martin Robertson.
- Casson, M.C., & Wadeson, N. (2007). The Discovery of Opportunities: Extending the Economic Theory of the Entrepreneur. *Small Business Economics*, 28(4), 285-300.
- Choi, Y.R., & Shepherd, D.A. (2004). Entrepreneurs' Decision to Exploit Opportunities. *Journal of Management*, 30(3), 377-395.
- Choi, Y.R., Levesque, M., & Shepherd, D.A. (2008). When should entrepreneurs expedite or delay opportunity exploitation? *Journal of Business Venturing*, 23(3), 333-355.
- Ciepielewska-Kowalik, A. (2013). *Trends and challenges for social enterprises in Poland. A new model of social investments and social cohesion*. Paper presented at 4th EMES International Research Conference on Social Enterprise "If Not For Profit, For What? And How?", July 1-4, 2013, Liege: University of Liege.
- Ciepielewska-Kowalik, A. (2015). *Socio-economic, political and historical context of the emergence of the Social Economy in childcare in Poland (1989-2014). Looking for social inclusion and cohesion enhancement*. Retrieved on June 30, 2016 from http://www.ciriecportugal.org/uploads/9/6/4/3/9643491/ciriec2015_0259_paper.pdf
- Ciepielewska-Kowalik, A., Pielniński, B., Starnawska, M., & Szymańska, A. (2015). *Social enterprise in Poland: institutional and historical context*. ICSEM Working Papers, No. 11, Liege: The International Comparative Social Enterprise Models (ICSEM) Project.
- Company's, Y.E., & McMullen, J.S. (2007). Strategic Entrepreneurs at Work: The Nature, Discovery, and Exploitation of Entrepreneurial Opportunities. *Small Business Economics*, 28(4).
- Dahlqvist, J., & Wiklund, J. (2012). Measuring the market newness of new ventures. *Journal of Business Venturing*, 27, 185-196.
- Davidsson, P. (2008). *The entrepreneurship research challenge*. Cheltenham: Edward Elgar.
- Davidsson, P., & Honig, B. (2003). The role of social human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301-331.
- De Jong, J.P.J. (2009). *The decision to innovate: antecedents of opportunity exploitation in high tech small firms*. Scales: Zoetermeer.
- Dimov, D. (2007). Beyond the single-person, single-insight attribution in understanding entrepreneurial opportunities. *Entrepreneurship Theory and Practice*, 31(5), 713-731.

- Doherty, B., Haugh, H., & Lyon, F. (2014). Social Enterprises as Hybrid Organizations: A Review and Research Agenda. *International Journal of Management Reviews*, 16(4), 417–436.
- Drayton, W. (2002). The citizen sector: becoming as entrepreneurial and competitive as business. *California Management Review*, 44(3), 120-132.
- Dutta, D.K., & Crossan, M.M. (2005). The Nature of Entrepreneurial Opportunities: Understanding the Process Using the 4I Organizational Learning Framework. *Entrepreneurship Theory and Practice*, 29(4), 425-449.
- Eckhardt, J.T., & Shane, S.A. (2003). Opportunities and Entrepreneurship. *Journal of Management*, 29(3), 333-349.
- European Commission (2014). *A map of social enterprises and their eco-systems in Europe*. Country Report: Poland. Brussels: European Commission.
- Fuentes, M., Arroyo, M.R., & Perez, V.F. (2010). Prior Knowledge and Social Networks in the Exploitation of Entrepreneurial Opportunities. *International Entrepreneurship Journal*, 6, 481-501.
- Greblikaite, J., Sroka, W., & Grants, J. (2015). Development of social entrepreneurship in European Union: policy and situation of Lithuania and Poland. *Transformations in Business & Economics*, 14(2B) (35B), 376-396.
- Hausner, J. (Ed.) (2008). *Przedsiębiorstwa społeczne w Polsce. Teoria i praktyka*. Kraków: Uniwersytet Ekonomiczny w Krakowie, Małopolska Szkoła Administracji Publicznej.
- Hayek, F. (1945). The use of knowledge in society. *American Economic Review*, 35(4), 519-530.
- Herbst, J. (2008). *Polski trzeci sektor w świetle teorii przedsiębiorstwa społecznego*. In J. Dąbrowska (red.), *Od trzeciego sektora do przedsiębiorczości społecznej – wyniki badań ekonomii społecznej w Polsce* (pp. 125-142). Warszawa: Stowarzyszenie Klon/Jawor.
- Holcombe, R.G. (2003). The origins of entrepreneurial opportunities. *The Review of Austrian Economics*, 16(1), 25-43.
- Jesensky, D. (2013). *Creating entrepreneurial opportunities: Interpretative Research about Role of POP Advertising Displays in Customer Purchase Decision Making*. Jyvaskyla: University Library of Jyvaskyla.
- Korosec, R., & Berman, E. (2006). Municipal support for social entrepreneurship. *Public Administration Review*, 66(3), 446-462.
- Koźuch, A., & Žukovskis, J. (2014). Effective managing of social co-operatives as a form of social enterprise: the case of Poland. *International Journal of Contemporary Management*, 134(4), 83-96.
- Kurleto, M. (2013). Possibility of using in Poland contemporary solutions concerning philanthropy and social entrepreneurship adopted in the U.S. *Global Management Journal*, 5(1-2), 28-35.
- Kusa, R. (2012). *Social entrepreneurship in Poland. A preliminary comparison of research approaches*. 1st Virtual International Conference on Advanced Research in Scientific Fields (ARSA-2012), 3-7 December, 94-97.
- Leś, E. (2004). Co-operatives in Poland: from state-controlled institutions to new trends in cooperative development. In C. Borzaga, & R. Spear (Eds.), *Trends and challenges for cooperatives and social enterprises in developed and transition countries* (pp. 185-196). Trento: Edizioni 31.

- Leś, E., Ciepielewska-Kowalik, A. (2014). *Social economy and social enterprises in Poland: trends, challenges and obstacles*. Paper presented at 54th ERSA Congress, St. Petersburg, August 26-29.
- Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, 41, 36-44.
- Peredo, M., & McLean, M. (2006). Social entrepreneurship: a critical review of the concept. *Journal of World Business*, 41, 56-65.
- Plummer, L.A., Haynie, J.M., Godesiabo, J. (2007). An Essay on the Origins of Entrepreneurial opportunity. *Small Business Economics*, 28, 363-379.
- Praszkier, R., Zabłocka-Bursa, A., & Jozwik, E. (2014). *Social enterprise, social innovation and social entrepreneurship in Poland*. EFSEIIS National Report, Warsaw: University of Warsaw.
- Roure, C.L., González, N., Nieto, M., García, C., & Solís, V. (2007). Influencia de la existencia y el descubrimiento de oportunidades sobre la actividad emprendedora. *Revista de Empresa: La Fuente de Ideas del Ejecutivo*, 20, 66-77.
- Schumpeter, J. (1934). *Theory of Economic Development*. Cambridge, MA: Harvard University Press.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4), 448-469.
- Shane, S. (2003). *A general theory of entrepreneurship: the individual-opportunity nexus*. Cheltenham, UK: Edward Elgar.
- Shane, S., & Venkatarman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.
- Shepherd, D.A., & DeTienne, D.R. (2005). Prior knowledge, potential financial reward, and opportunity identification. *Entrepreneurship Theory and Practice*, 29, 91-112.
- Short, J.C., Ketchen, D.J., Shook, C.L., & Ireland, R.D. (2010). The Concept of "Opportunity" in Entrepreneurship Research: Past Accomplishments and Future Challenges. *Journal of Management*, 36(40), 40-62.
- Smith, B.R., Matthews, C.H., & Schenkel, M.T. (2009). Differences in entrepreneurial opportunities: the role of tacitness and codification in opportunity identification. *Journal of Small Business Management*, 47(1), 38-57.
- Soderqvist, A. (2011). *Opportunity exploration and exploitation in international new ventures: a study of relationships' involvement in early entrepreneurial and internationalization events*. Helsinki: Edita Prima.
- Starnawska, M. (2011). *Resourcing in social enterprise – content analysis of 'good practices' profiled in 'Atlas of social economy' in Poland*. Retrieved on April 30, 2016 from http://emes.net/content/uploads/publications/resourcing-in-social-enterprise-content-analysis-of-good-practices-profiled-in-atlas-of-social-economy-in-poland/5ESCP-02-Resourcing_in_social_enterprise_content_analysi_s_Marzena_Starnawska.pdf
- Thompson, T.L. (2002). The world of the social entrepreneur. *International Journal of Public Sector Management*, 15(5), 412-431.
- Ucbasaran, D., Westhead, P., & Wright, M. (2009). The extent and nature of opportunity identification by experienced entrepreneurs. *Journal of Business Venturing*, 25, 99-115.

- Von Hippel, E. (1994). 'Sticky information' and the locus of problem solving: implications for innovation. *Management Science*, 40(4), 429–439.
- Zahra, S.A., Korri, J.S., & Yu, J. (2005). Cognition and international entrepreneurship: implications for research on international opportunity recognition and exploitation. *International Business Review*, 14(2), 129-146.
- Zahra, S.A., Gedajlovic, E., Neubam, D.O., & Shulman, J.M. (2009). A typology of social entrepreneurs. Motives, search processes and ethical challenges. *Journal of Business Venturing*, 24, 519-532.

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Innovative Behaviour of High-Tech Internationalized Firms: Survey Results from Poland

Krzysztof Wach

ABSTRACT

Objective: The aim of the article is to identify and verify the relationship between internationalization and innovativeness as well as innovative behaviour of high-tech businesses in Polish context.

Research Design & Methods: A quantitative research design was employed. A survey was conducted on the sample of 263 firms operating in high-tech industries in Poland. To verify the assumed relationships statistical instruments were used, including descriptive statistics, Chi-Square test, the Kruskal-Wallis test and multivariate regression.

Findings: The level of innovativeness of investigated hi-tech firms was relatively high. Results suggest that the innovativeness of a business contributes to the intensification of the internationalization process of firms operating in high-tech industries. The regression model confirms the dependence of internationalization on three innovative behaviours, such as the general evaluation of innovativeness of the firm), the pace of innovation diffusion and the number of implemented innovations.

Implications & Recommendations: Polish high-tech businesses seem to be relatively well internationalized, especially in comparisons to general business population. Policy makers should continue to support innovativeness of Polish economy, but especially these industries which are highly innovative.

Contribution & Value Added: The research presented in the article seems to be one of the first in Poland investigating into internationalization and innovation in high-tech industries. The results are in line with the majority of empirical evidence worldwide. The preliminary link between innovation and internationalization among Polish high-tech businesses was confirmed.

Article type: research article

Keywords: innovation; innovativeness; i-models; international business; internationalization; international entrepreneurship

JEL codes: F23, O30, M16

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INTRODUCTION

Currently, innovations are considered to be the heart of the present-day international entrepreneurship research (Onetti, Zuchella, Jones & McDougall, 2012). Few previous decades have caused that the global economy has undergone a dramatic change, and the “new economic landscape requires a combination of entrepreneurship, innovation, and internationalization” (Hagen, Denicolai & Zucchella, 2014, p. 111). Innovation, innovativeness and/or innovative resources are widely recognized as a major driver of firm internationalization either in traditional industries (Veglio & Zuchella, 2015) and especially in high-tech industries (Spence & Crick, 2006) or at least in knowledge-intensive industries (Bell, McNaughton, Young, Crick, 20013). Innovation is the key value creation and export performance either for large multinational enterprises (MNEs) (Cano-Kollmann, Cantwell, Hannigan, Mudambi & Song, 2016) or for small and medium-sized enterprises (SMEs) (Kosała, 2015). Nevertheless, the recent empirical evidence and literature show that “the links between innovation and internationalization tend to be less clear” (Zuchella & Siano, 2014) as it is quite difficult to capture empirically these relations.

The aim of the article is to identify and verify the links between internationalization and innovativeness as well as innovative behaviour of high-tech business in Polish realities. Empirical research is based on survey research. The article is designed in three conventional sections. The first section presents the literature review on the potential relationship between innovation and internationalization. The second section introduces the basic description of the material and methods used in the empirical study. The third section discussed the empirical results obtained on the sample of 263 firms operating in high-tech industries in Poland.

LITERATURE REVIEW

According to Schumpeter (1934), one of five forms of innovation is entering new markets, thus internationalization, as the expansion into a new foreign market or markets, can be considered innovation itself (more specifically, marketing innovation, while using a popular 4-element classification of innovation). Usually it is reported that the relation between innovation and internationalization dates back to 1970s (Szymura-Tyc, 2015, p. 70), at first at the macroeconomic level and then in business studies.

Rogers (1962, p. 8186) developed the process of the sequential adaptation of innovation (Innovation-adoption Process, IAP) on which innovation-related internationalization models are based. The introduction of innovation in stages models enabled to isolate the subgroup of innovation-related models which, in their primary assumptions, based on the behavioural theory and the phase internationalization process, therefore, are *de facto* a variety of stages models (Andersen, 1993, p. 212). The stress, however, is differently distributed as for the mechanism of the internationalization process and its explanation (Table 1). Innovation-related models are based on the sequential learning process, with regard to innovation or adaptation, and decisions of the firm about its internationalization are treated as innovations *sensu largo*. Various authors of various innovation-related models distinguish various stages of the internationalization process. Individual stages differ from each other, starting either from the lack of interest in inter-

nationalization or export awareness, and as a rule ending with the exploration of farther foreign markets. Reid (1981, p. 104) states that “viewing exporting as innovation adoption gives us richer insight into how exporting is initiated and how it is developed”. The innovation-based stages models treat internationalization *per se* as a process of innovation, especially as a learning process – internationalization by learning (Andersen & Kheam, 1998).

Table 1. The comparison of stages models (U-model) with innovation-based models (I-model)

Criterion		U-model	I-models
Types of scientific explanation		Genetic historicism	
Analytical assumptions	Unit of analysis	No restrictions (SMEs, Large enterprises)	SMEs
	Time	Unlimited	Limited
Causation	Model type	Causative cycles	Explanatory chain
	Explanatory variables	One variable: knowledge of the enterprise	A lot of variables, mostly concerning organizational factors
Scientificity / Utility	Assumptions with regard to enterprise behaviour	Based on behavioural theories, incremental decision-making process with no or little impact of competitive and market factors	
	Correctness of defining the variables	Examples of possible indicators, no operating definitions	Unclear arguments for the classification of procedures or operationalization of explanatory variables
	Accuracy of delimitation between stages	Considerable generality and ambiguity	Basically intuitive argumentation and reasoning
Usefulness / Intuitiveness		Axiomatic logics. Useless for the needs of management and government policy.	
Conformity between: - theory and operationalization - conceptual and operating definitions		Unclear	Some discrepancies, no testing of validity
Specification of variables adopted to determine the impact on the development process		No variables except for causative cycles	Lack of complete list of variables, unclear argumentation why and how variables should differ between stages
Empirical setting		Case studies: measurement of independent variables based on the observation of dependent variables	Cross-section analyses, unclear causality of internationalization phases from their determinants
Tautologies		Some difficulties in delimitation of theoretical concepts	In some cases independent and dependent variables are almost identical
Testing alternative explanatory variables		none	

Source: own compilation based on Andersen (1993, p. 221 & 226).

Literature and various empirical evidence reveal a bipolar dependence, innovation can impact internationalization, but also internationalization can influence innovation, thus there are two main streams of research (Daszkiewicz, 2016, p. 105, Szymura-Tyc, 2015, p. 85):

1. **Innovation as the cause.** Innovativeness and innovative behaviour of firms cause (faster or better) internationalization.
2. **Innovation as the effect.** Internationalization and international experience stimulate innovative behaviour of the firm.

In the literature there is an ongoing debate on the role of innovations and the links between innovation and internationalization and sometimes the empirical results are quite contrary. Based on the sample of 299 internationalized Finish firms and using a cluster analyses Kyläheiko *et al.* (2011) found that most of the firms were replicators (79.8%), not innovators (20.2%), and distinguished four clusters, namely (i) international replicators – 29.3% of the sample, (ii) domestic replicators – 50.5%, (iii) domestic innovators – 11%, (iv) international innovators – 9.2%. Innovative capabilities, especially technological ones, are a major driver of international growth of the firm (Pla-Barber & Alegre, 2007). As for various types of innovations, the most important in the internationalization process are product innovations, or generally technological innovations. It seems that there is a positive relationship between product innovation and export performance as the basic mode of internationalization (Cassiman & Golovko, 2011). Innovation can be classified as hard and soft, what is more the innovative behaviour of the entrepreneur, especially in case of SMEs, also impacts the international performance of the business (Denicolai, Hagen & Pisoni, 2015). High-tech businesses, especially small technology-based enterprises (STEs) are international from the inception and called born globals (Kuivalainen, Saarenketo & Puimalainen, 2012; Zou & Ghauri, 2010), and it is a clear evidence that there is a link between innovations (knowledge, high-technology) and internationalization, at least in case of high-tech industries. Also Li, Qian and Qian (2012) confirmed that technological intensity is positively correlated with the early internationalization (born globals). Li, Qian and Qian (2015) proved that radical innovations are positively correlated with internationalization, as small young technology-based entrepreneurial firms (SYTEFs) that “generate radical innovation are more likely to internalize their foreign operations”. Chetty and Stangl (2010) confirmed that internationalized businesses with limited network relationships have incremental internationalization and innovation, but those with diverse network relationships exhibit radical internationalization and innovation. Literature on the role of innovation in international business is very diverse and rich and deals with many detailed aspects like licencing or research and development (R&D). Pinkwart and Proksch (2014) confirmed that going international is positively related with having patents or licences. The above mentioned variables can be put together and integrated into the basic concept of international entrepreneurship (Wach, 2015, p. 19), which can result in the theoretical modelling of innovative internationalization of the firm (Figure 1).

Both, the literature studies, and especially the review of various empirical studies resulted in the following hypothesis to be tested in the empirical reality in Poland:

H: Innovativeness and innovative behaviour of a business contributes to the intensification of the internationalization process of the firm operating in the high-technology industries.

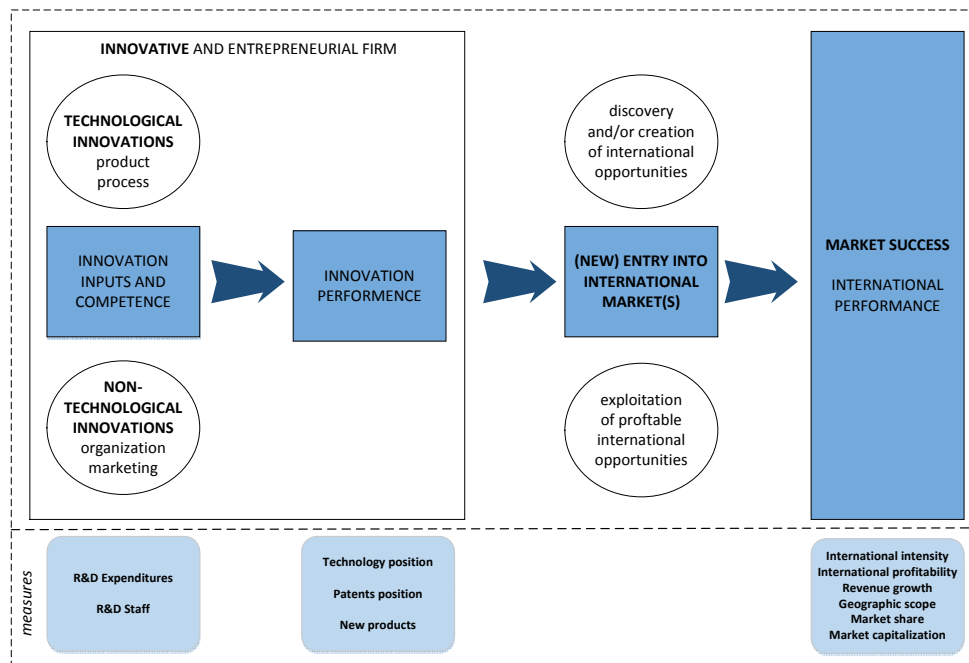


Figure 1. The theoretical modelling of innovative internationalization in international entrepreneurship

Source: own study based on Wach (2015, p. 19) and Gerybadze (2010, p. 15).

MATERIAL AND METHODS

To identify and verify the links between innovation and internationalization of high-technology businesses in Poland survey research was employed. The study was conducted at the end of 2015 using Computer Assisted Telephone Interviewing (CATI). Stratified sampling has been selected according to the following criteria (Daszkiewicz, 2016, p. 124):

- firms performing any international activities (at least exports),
- firms belonging to one of the given classes of business activity (NACE), being classified as high-tech or medium-high-tech industries,
- firms fulfilling at least one out of the following three criteria:
 - a) obtaining patents or signing licensing agreements in the areas identified as high-tech,
 - b) employing highly qualified personnel in terms of science and technology,

- c) conducting industrial research, research and development (R&D) activities to prepare these studies and work to implement in the economy.

Based on the above mentioned criteria, the target population was selected, and the survey questionnaire was directed to 4075 businesses from the database, of which 857 businesses, in fact were not eligible for the study, or did not have in the database the current phone number, so the net population was only 3218 of internationalized high-tech firms. In the course of surveying we obtained 263 fully completed questionnaires (the return rate was 8.2%), suitable for further statistical processing, as a basis for inferring.

The study uses six different variables (one measuring the internationalization level and five measuring innovativeness and innovative behaviour) such as:

- the transnationality index (TNI) expressed as a percentage (from 0 to 100%),
- the pace of innovation diffusion measured on 7-point Likert scale (DiffPace),
- the number of implemented innovation from 0 to 8 (InnoNumb),
- the innovation scope (business-level, regional, country-wide, worldwide innovations),
- the innovation types (product, process, organizational, marketing innovations),
- the innovation index (INNO) as a continuous variable (1-100%) and an interval variable (low, moderate, high innovators).

The transnationality index (TNI) was calculated as the average of foreign assets, sales and employment to the total ones and being expressed as a percentage based on the formula:

$$TNI = \frac{\frac{A_F}{A_T} + \frac{S_F}{S_T} + \frac{E_F}{E_T}}{3} * 100 [\%] \quad (1)$$

where:

- A_T - total assets;
- A_F - foreign assets;
- S_T - total sale;
- S_F - foreign sales;
- E_T - total employment;
- E_F - foreign employment.

In order to evaluate the real level of innovativeness of the investigated firms, there was a need to create one indicator expressing the innovative behaviour of business. The innovation index (INNO) enabled to evaluate the innovativeness of the responding firms. This synthetic indicator uses two basic dimensions of innovations, namely (i) the range of innovations measured by their types and numbers and (ii) the scope of innovations measured on the tradition 4-category scale (in numbers expressed from 1 to 4). Each innovation was able to provide from 1 to 4 points. 8 different cases of various innovations enabled to provide up to 32 points. The innovation index, as the overall indicator of innovation evaluation, was constructed by the sum of the values at each of the cases (by multiplying the range and the scope of innovations), and then divided by the sum of the maximum achievable points. Ultimately, it resulted in an average total score, standardized in the range of 0 to 1 (expresses as the percentage in the range from 0 to 100). The

following weights were adopted: (0;25> – low innovators; (25;75> – moderate innovators; (76;100> – high innovators.

The statistical calculations were made by the use of the statistical software Statistica® PL v. 12.5. In the empirical study, the level of the statistical significance (alpha or α) for statistical hypotheses testing was considered as 0.05. To verify the assumed relations statistical instruments were used such as descriptive statistics, Chi-Square test, the Kruskal-Wallis test, the linear Pearson correlation and the multivariate regression.

RESULTS AND DISCUSSION

As for the size of the investigating businesses, the sample was diversified, and included: 9% of microenterprises, 26% of small enterprises, 47% of medium-sized enterprises and 18% of large enterprises. The share of enterprises belonging to the SME sector of the surveyed businesses is 82% (216 enterprises), while the share of large enterprises is 18% (47 enterprises). Businesses were located in all 16 regions of Poland, with a clear overrepresentation came from three regions: *mazowieckie*, *śląskie* and *wielkopolskie*. Among the surveyed firms, over 75% had exclusively domestic capital, and less than 15% of the surveyed businesses declared that foreign ownership of assets is 100%.

All investigated businesses implemented within the previous 3 years at least one type of innovation. Respondents were given a list of 8 different innovations, to be more specific there were two different innovations of each of 4 basic types of innovations (Figure 2). Altogether it was possible to declare 8 different innovations. Between 1 and 3 innovations were implemented by 26.23 investigated firms, while 4 of 5 innovations were introduced by 33.45% of business and the highest number of innovations, between 6 and 8, were declared by 40.32 of the responding firms. The overall level of innovation implementation was rather high, comparing to general empirical studies of internationalized businesses, but as the study included high-tech companies, so the high level cannot be surprising. The innovativeness level of Polish internationalized businesses operating in various industries (sample of 293) conducted by Szymura-Tyc (2015, pp. 165-170) was a bit lower. Almost all investigated firms implemented product innovation (257 out of 263), while organizational innovations were the least popular (152 out of 263). Either process or marketing innovations were also quite popular among the responding firms (respectively 204 and 222).

According to the theory of innovation, the scope of innovation is important while judging innovation behaviour of firms. All investigated business implemented at least one type of innovation, however its scope was very diversified:

- a) 14.8% investigated firms implemented business-level innovations (39 cases),
- b) 4.2% investigated firms implemented regional level innovations (11 cases),
- c) 18.3% investigated firms implemented country-wide innovations (48 cases),
- d) 62.7% investigated firms implemented worldwide innovations (165 cases).

The scope of the declaring innovations is indeed very optimistic, especially taking into account the types of the implemented innovations (Figure 3). The product innovations, which are crucial for high-tech firms, were the most frequently implemented in the global scale, which means they were new to the world.

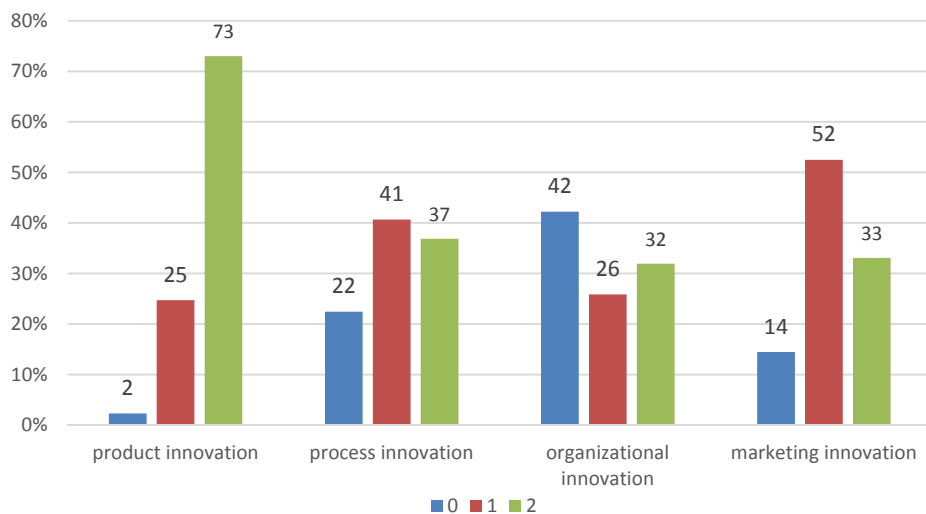


Figure 2. Number of implemented innovations by their types among the investigated businesses (in %)

Note: The numbers do not sum up to 100% as respondents could select more than one answer.
Source: own calculations based on the survey ($n = 263$).

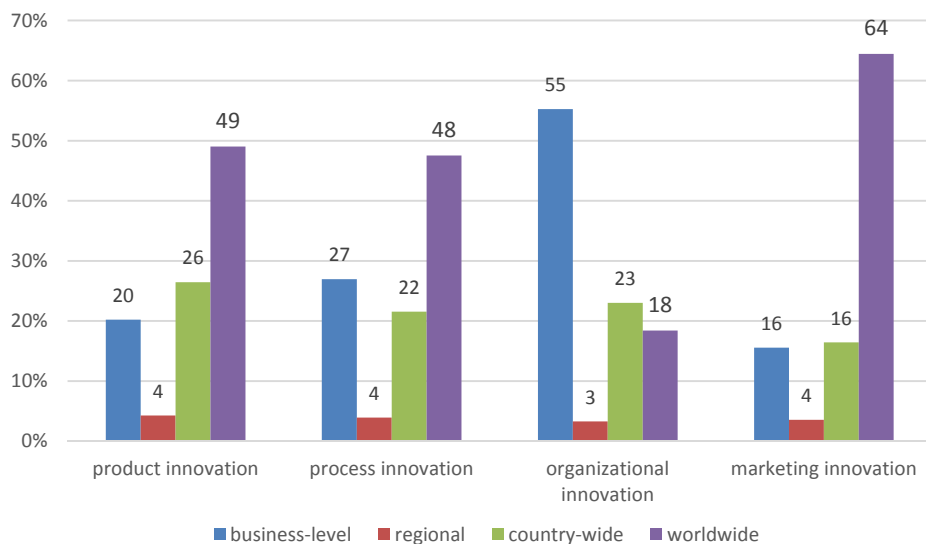


Figure 3. Scope of implemented innovations by their types among the investigated businesses (in %)

Note: The numbers might not sum up to 100% due to rounding.
Source: own calculations based on the survey ($n = 263$).

Rating of the business innovativeness ranges of continuous values from the both sides closed interval in the range of $\langle 1, 100 \rangle$. The innovation index of investigated business ranged from 3.12 to 100 (Table 2). Based on the mean, the median, and the mode, it is obvious that the innovation behaviour of investigated firms was average in most cases. Only one fourth of the firms, exceeded its level amounted to 62.50 and these companies can be considered hyper innovative.

Table 2. Descriptive statistics of innovation index (INNO) of the investigated businesses

Mean	Median	Mode	Frequency of Mode	Minimum	Maximum	Lower Quartile	Upper Quartile	Std. Dev.
43.91	40.62	37.50	24	3.12	100	25	62.50	24.16

Source: own calculations based on the survey and Statistica 12.5 ($n = 263$).

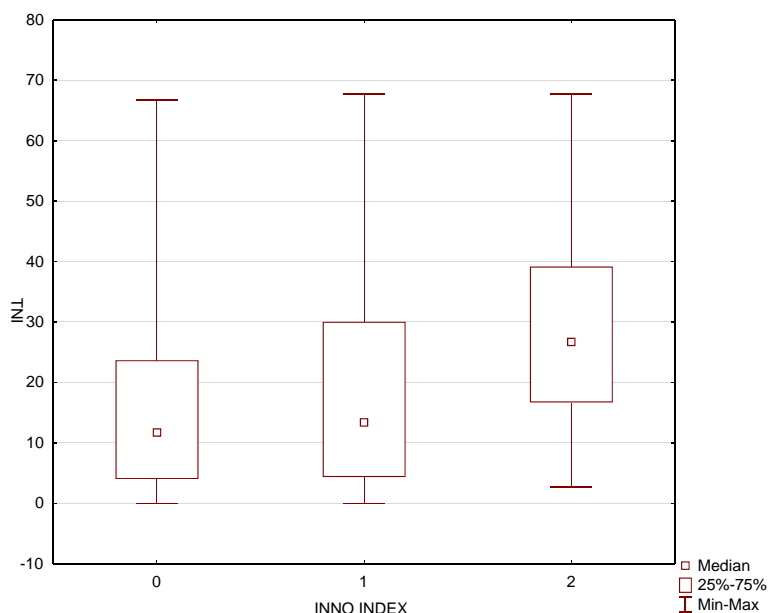
As suggested by prior research there is a theoretical assumption that there is a dependence between the internationalization and innovativeness of firms. The linear Pearson correlation value between TNI (internationalization level of firms) and INNO (the innovation index of firms) is only 0.31 significant at $p < 0.05$, which means the average correlation between these variables. Also Szymura-Tyc (2015, p. 177) obtained very similar results based on the sample of 293 internationalized business operating in various industries ($r = 0.302$, $p < 0.001$). Taking the 4-category innovation index and using the Kruskal-Wallis test the dependence between the variables of TNI and INNO was also confirmed (Chi-Square = 10.65, $df = 2$, $p = 0.0049$; $H(2, 261) = 969935$, $p = 0.0078$). It was also confirmed by the median test, and the mean ranks for groups were as follows: 118, 130, 173. Studying the “box & whisker” plot it is noticeable that the better innovator is, the higher TNI value it receives (Figure 4). TNI values was the highest for so called high innovators, and the lowest for the low innovators. Therefore, the hypothesis was confirmed, according to which the innovativeness of a business contributes to the intensification of the internationalization process of the firm operating in the high-technology industries.

In order to search for deeper relationships, multiple regression was used. Although the p -value means very strong presumption against neutral hypotheses, the model explains only 5.6% of the dependence of TNI on three innovative behaviours, such as (i) the innovation index (as the general evaluation of innovativeness of the firm), (ii) the pace of innovation diffusion and (iii) the number of implemented innovations. If the innovation index will increase of 1 p.p., TNI will increase in average of 5.47 p.p. *ceteris paribus*. What can be interesting is the fact that if the number of innovation will increase of 1 p.p., TNI will decrease of 1.98615 p.p. Despite the awkward outlook, these results can be explained quite easily, as we can assume, as the investigated firms introduced between 1 and 8 innovations, so some of them were inessential or even unnecessary. Probably organizational and/or marketing innovations, except for being costly, didn't supported the internationalization process, as we could assume.

Table 3. Regression Summary for Dependent Variable of TNI

Effect	R = 0.23656313		R ² = 0.05596211		Adjusted R ² = 0.04494221	
	F(3,257) = 5.0783 $p < 0.0019$ Std.Err. of Estimate: 19.174					
	b*	Std.Err. of b*	b	Std.Err. of b	t(257)	p-value
Intercept			22.0314	3.5214	6.2563	0.0000
INNO	0.2618	0.0894	5.4665	1.8670	2.9279	0.0037
DiffPace	0.1431	0.0617	6.0394	2.6063	2.3172	0.0213
InnoNumb	-0.1915	0.0893	-1.9861	0.9268	-2.1429	0.0330

Source: own calculations based on the survey and Statistica 12.5 ($n = 263$).

**Figure 4. Boxplot by group for the variables TNI and INNO INDEX**

Note: 0 – low innovators, 1 – medium innovators, 2 – high innovators.

Source: own calculations based on the survey ($n = 263$).

CONCLUSIONS

Like all research, this study is not without some notable limitations. First of all, the research sample is not representative for the whole population, thus it is not possible to absolutize the result over the whole population of Polish businesses of high-tech industries, but are quite close to generalization. Secondly, future studies should seek to develop longitudinal research designs.

Based on the statistical calculations presented in the article, the following conclusions can be drawn:

1. The overall level of innovation implementation among the investigated firms was rather high, comparing to general empirical studies of internationalized businesses, but as the study included high-tech companies, so the high level cannot be surprising.
2. Almost all investigated firms implemented product innovation, as for high-tech industries this can be obvious.
3. Most of the investigated businesses implemented worldwide innovations, as the widest range of 4-category classification, and again for high-tech industries this is rather expected.
4. The hypothesis stating that the innovativeness of a business contributes to the intensification of the internationalization process of the firm operating in the high-technology industries, was confirmed (linear Pearson correlation, Kruskal-Wallis test). The higher level of TNI was observed among high innovators and the lowest among low innovators.
5. The regression model showed the dependence of TNI on three innovative behaviours, such as the innovation index, the diffusion of innovation pace and the number of implemented innovation.

The research presented in the article seems to be one of the first in Poland investigating into internationalization and innovation in high-tech industries. The results are in line with the majority of empirical evidence worldwide. The preliminary links between innovation and internationalization among Polish high-tech businesses were confirmed. Further research should seek the links and dependences between technological as well as non-technological innovations and the internationalization intensity.

The empirical results have also great importance for policy makers, as the illustration of Polish high-tech businesses seem to be relatively well internationalized, especially in comparisons to general business population. Policy makers should continue to support innovativeness of Polish economy, but especially these industries which are highly innovative.

REFERENCES

- Andersen, O. (1993). On the Internationalization Process of Firms: A Critical Analysis. *Journal of International Business Studies*, 24(2), 209-231.
- Andersen, O., & Kheam, L.S. (1998). Resource-based theory and international growth strategies: an exploratory study. *International Business Review*, 7(2), 163-184.
- Bell, J., McNaughton, R., Young, S., & Crick, D. (2003). Towards and integrative model of small firm internationalization. *Journal of International Entrepreneurship*, 1(4), 339-362.
- Cano-Kollmann, M., Cantwell, J., Hannigan, T.J., Mudambi, R., & Song, J. (2016). Knowledge connectivity: An agenda for innovation research in international business. *Journal of International Business Studies*, 47(3), 255-262.
- Cassiman, B., & Golovko, E. (2011). Innovation and internationalization through exports. *Journal of International Business Studies*, 42(1), 56-75.
- Chetty, S.K., & Stangl, L.M. (2010). Internationalization and innovation in a network relationship context. *European Journal of Marketing*, 44(11/12), 1725-1743.

- Daszkiewicz, N. (2016). *Internacjonalizacja przedsiębiorstw działających w branżach high-tech*. Warszawa: PWN.
- Denicolai, S., Hagen, B., & Pisoni, A. (2015). Be international or be innovative? Be both? The role of the entrepreneurial profile. *Journal of International Entrepreneurship*, 13(4), 390-417.
- Gerybadze, A. (2010). R&D, Innovation and Growth: Performance of the World's Leading Technology Corporations. In: A. Gerybadze, U. Hommel, H.W. Reiners, D. Thomaschewski (Eds.), *Innovation and International Corporate Growth*. Berlin – Heidelberg: Springer.
- Hagen, B., Denicolai, S., & Zuchella, A. (2014). International entrepreneurship at the crossroads between innovation and internationalization. *Journal of International Entrepreneurship*, 12(2), 111-114.
- Kosała, M. (2015). Innovation Processes as a Stimulant of Internationalization Process of Firms. *Entrepreneurial Business and Economics Review*, 3(2), 65-84. doi: 10.15678/EBER.2015.030206
- Kuivalainen, O., Saarenketo, S., & Puumalainen, K. (2012). Start-up patterns of internationalization: a framework and its application in the context of knowledge-intensive SMEs. *European Management Journal*, 30(4), 372-385.
- Kyläheiko, K., Jantunen, A., Puumalainen, K., Saarenketo, S., & Tuppara, A. (2011). Innovation and internationalization as growth strategies: The role of technological capabilities and appropriability. *International Business Review*, 20(5), 508-520.
- Li, L., Qian, G., & Qian, Z. (2012). Early internationalization and performance of small high-tech born-globals. *International Marketing Review*, 29(5), 536-561.
- Li, L., Qian, G., & Qian, Z. (2015). Should Small, Young Technology-Based Firms Internalize Transactions in Their Internationalization?. *Entrepreneurship Theory and Practice*, 39(4), 839-862.
- Onetti, A., Zuchella, A., Jones, M., & McDougall, P. (2012). Entrepreneurship and strategic management in new technology based companies. *Journal of Management and Governance*, 16(3), 5-22.
- Pinkwart, A., & Proksch, D. (2014). The Internationalization Behavior of German High-Tech Start-ups: An Empirical Analysis of Key Resources. *Thunderbird International Business Review*, 56(1), 43-53.
- Pla-Barber, J., & Alegre, J. (2007). Analysing the link between export intensity, innovation and firm size in a science-based industry. *International Business Review*, 16(3), 275-293.
- Reid, S.D. (1981). The Decision-Maker and Export Entry and Expansion. *Journal of International Business Studies*, 12(2), 101-112.
- Rogers, E.M. (1983). *Diffusion of innovations*. New York – London: The Free Press.
- Schumpeter, J.A. (1934|2008). *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*. Transl. by R. Opie. New Brunswick – London: Transaction Publishers.
- Spence, M., & Crick, D. (2006). A comparative investigation into the internationalization of Canadian and UK high-tech SMEs. *International Marketing Review*, 23(5), 524-548.
- Szymura-Tyc, M. (2015). *Internacjonalizacja, innowacyjność i usieciowienie przedsiębiorstw: podejście holistyczne*. Warszawa: Difin.
- Veglio, V., & Zuchella, A. (2015). Entrepreneurial firms in traditional industries. Does innovation matter for international growth?. *Journal of International Entrepreneurship*, 13(2), 138-152.
- Wach, K. (2015). Entrepreneurial Orientation and Business Internationalization Process: The Theoretical Foundations of International Entrepreneurship. *Entrepreneurial Business and Economics Review*, 3(2), 9-24. doi: 10.15678/EBER.2015.030202

Zou, H., & Ghauri, P. (2010). Internationalizing by learning: the case of Chinese high-tech new ventures. *International Marketing Review*, 27(2), 223-244.

Zucchella, A., & Siano, A (2014). Internationalization and innovation as resources for SME growth in foreign markets: a focus on textile and clothing firms in the Campania Region. *International Studies of Management and Organization*, 44(1), 21-41.

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Backshoring in Light of the Concepts of Divestment and De-internationalization: Similarities and Differences

Michał Młody

ABSTRACT

Objective: The purpose of this article is to evaluate the adequacy of the present theoretical knowledge relating to divestments and de-internationalization in the context of explaining the backshoring phenomenon – a relatively new, but gaining in importance specific behaviour of companies in the process of internationalization.

Research Design & Methods: The paper discusses various aspects of contemporary processes of internationalization. The employed research design is qualitative – the study has been based on conclusions drawn from critical literature studies.

Findings: Although backshoring shares some common characteristics with the concepts of de-internationalization and international divestments, there are several noticeable differences: e.g. both de-internationalization and international divestments are rather related to wholly owned subsidiaries, while backshoring includes both activities outsourced to company's foreign suppliers and to its subsidiaries.

Implications & Recommendations: It is necessary to develop new concepts that in a holistic way will define the decision-making process of enterprises which use de-internationalization and backshoring of business processes as part of their long-term internationalization strategies. The article indicates some dependencies and issues that must be considered in formulating new theoretical proposals.

Contribution & Value Added: The originality of this study lies in the in-depth analysis of the similarities and differences between the processes of de-internationalization/international divestments and backshoring.

Article type: original literature review

Keywords: backshoring; reshoring; international divestment; internationalization process; de-internationalization

JEL codes: F21, F23, L21, L23

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INTRODUCTION

International business (IB) literature contains multiplicity and diversity of theoretical explanations of motives, courses and consequences of internationalization of enterprises. Such variety results from methodological and content-related reasons. Due to a great plurality of possible paths of internationalization, researchers can focus attention only on selected aspects of operations undertaken by the companies in international markets. Reasons for expansion into foreign markets should be sought in new phenomena in the macro- and competitive environment. Companies create their own, often completely new, development and competitive strategies, taking into account current and future external conditions. Consequently, there is no single universal theory of internationalization, but rather a bundle of complementary concepts that can be applied to explain the internationalization processes of different types of businesses.

First (traditional) theoretical approaches covered the internationalization of production and foreign direct investments, generally undertaken by companies with ownership advantages (resulting from the company's size, experience and possession of unique technology). The concepts which were developed in the last decades of the twentieth century perceived internationalization as a gradual process of increasing the companies' involvement in activities on foreign markets through systematic adequate adjustments in the area of used strategies, available resources and organizational structure (Mińska-Struzik & Nowara, 2014). A common feature of these theoretical concepts is the perception of growing internationalization as a one-way escalating process in which companies use various modes of entering foreign markets.

Meanwhile – as indicated by a number of studies – the economic crisis has forced many international companies to reduce the scale and scope of activities on foreign markets. This is not a new phenomenon – since the 70s companies have been making decisions of withdrawing from foreign operations or changing entry modes. However, the current reconfiguration of international business activities is connected with new factors and circumstances that are not fully inherent in previously known concepts of de-internationalization and international divestments. Simultaneously, backshoring – a specific behaviour of some TNCs (transnational corporations) in the process of internationalization, understood as a partial or total relocation of previously offshored companies' activities to their home countries, is gaining importance in recent years. Therefore, it seems crucial to answer the question to what extent the existing theoretical frameworks are useful to explain the trend of backshoring. Thus the main objective of the article is to evaluate the usefulness of concepts of international divestments and de-internationalization in explaining the backshoring phenomenon. The research has been based on conclusions drawn from in-depth study of literature.

The first section of the article describes the essential ideas of international divestment and de-internationalization. In addition, it presents the basic modes and typology of de-internationalization. Then, the main reasons for decision about de-internationalization are identified. In the next part of the paper different definitions of backshoring are compared and the main types of this phenomenon and motives are highlighted on the basis of the selected empirical research. The discussion section presents the main conclusions and points out the similarities and differences between the

processes of divestment, de-internationalization and backshoring. The paper ends with some conclusions and implications for further research.

MATERIAL AND METHODS

The main aim of the article is to evaluate the adequacy of current theoretical knowledge relating to divestments and de-internationalization in the context of the possibility of explaining the backshoring phenomenon. Therefore, the paper focuses on the presentation and evaluation of these phenomena by thoroughly discussed definitions, conditions and motives. Identification of similarities and differences allows to assess the usefulness of concepts of international divestments and de-internationalization in explaining backshoring. Based on a review of literature, it can be concluded that although these theoretical concepts have some features in common, backshoring has some specific characteristics that suggest separate approach to this concept in IB field.

The article is of descriptive character. The most recognized concepts have been selected for the needs of this study. The literature review covers available literature on the subject (in particular academic articles), published before December 2015. Selected academic databases (EBSCO, Emerald, Scopus, Google Scholar), taking into consideration such keywords as: "divestment", "de-internationalization", "reshoring", "backshoring", "onshoring" were employed to identify relevant literature¹. Besides, considering the same keywords, proceedings of the most important international conferences in the area of international business (e.g. EIBA, AIB) have been analysed. Attention has been paid primarily to academic articles, which focused on the analysis of motives, governance structure of relocated activities and the level of voluntariness of companies that decided to implement these strategies.

LITERATURE REVIEW AND THEORY DEVELOPMENT

De-Internationalization and Divestments as the Specific Behaviours of Companies on International Markets

In the current economic reality companies are forced, more than ever, to make decisions regarding effective management of international operations' portfolio, including the reduction of activities in foreign markets. As early as in the 70s researchers' attention has been drawn to foreign divestments (Boddewyn, 1979). Since that moment, divestments have stopped to be perceived only as a failure in terms of conducting operations in foreign markets and have been used in the processes of adapting companies to the changes in their internal and external environment.

Multidimensionality of the processes and the variety of companies, industries and locations create a broad spectrum for studying the phenomenon of divestments (Chow & Hamilton, 1993). When considering divestments from the perspective of a corporate strategy, a portfolio of foreign operations is considered – the company is analysed in terms of its efficiency and strategic adjustment of resources and products. Operations that are unprofitable and deviating from the company's strategy should be immediately

¹ Analysis of a number of media articles referencing to reshoring/backshoring was conducted by Cranfield University (2015), and it indicates a dynamic increase of interest in this topic from 2010.

sold or liquidated (Duhaime & Grant, 1984). This indicates that the probability of divestment depends largely on the strategy adopted by the company in foreign markets. It is also important whether the company adapts and works on individual foreign markets as a part of a multinational strategy, or the branch is a part of an integrated production network belonging to the global company (it is assumed that foreign affiliates are more vulnerable to divestments).

A divestment may mean a partial reduction of activities in foreign markets or total withdrawal of companies from operations on the market through liquidation, sale of assets, or bankruptcy petition (Burt, Dawson & Sparks, 2003). In the case of sale, the owner changes, but the foreign branch continues its activities. Liquidation means that a foreign subsidiary of a company ceases to exist (Mata & Portugal, 2000). Divestments may also be the result of failures on the foreign market, adaptation or restructuring actions taken by the company (aimed at improving the functioning of the whole enterprise) or can be also imposed, e.g. in case of nationalization (Benito, 2005)².

Typology of divestment processes proposed by Simoes (2005) is based on the two approaches to this phenomena: the reduction of the degree of ownership and the reduction of assets held by the company and its activities. The author distinguished: (i) forced divestments / selling a branch / selling part of the shares (reduction of property, business is conducted with no changes), (ii) a decrease in production / decrease in importance of the branch (reduction of operations, the level of ownership remains unchanged), and (iii) liquidation of a foreign branch / sale of shares and reduction of company's activities (reduction of both the scope of operations and the level of ownership), and (iv) no divestments (no changes in the ownership and business activity).

The concept of de-internationalization has been outlined much later and introduced by Welch and Luostarinen (1988), who believed there was no guarantee that the company that started the process of internationalization would continue it in the future. Similarly, Fletcher (2001) challenges the traditional approach to internationalization as an incremental process, and examines the role of de-internationalization in view of long-term internationalization of the company. According to the author, this process is the opposite of gradual progression and should be analysed in the context of the problems identified during the initial implementation of the original internationalization strategy. A similar approach was presented by Calof and Beamish (1995), who claimed that internationalization is a continuous process to adapt the structure, strategies, resources, and other business operations to the conditions prevailing in the international environment, and de-internationalization is a deliberate reduction in the degree of involvement of companies in international markets.

Benito and Welch (1997), who first developed a conceptual model of de-internationalization, believe that this process applies to all activities, both voluntary and forced, which result in a reduction of activities in the international market. The authors have analysed de-internationalization from three theoretical perspectives: economics,

² However, Boddewyn (1979) claims that foreign divestment is only a voluntary cessation of business activity or the sale of all or selected parts of the company. Besides, also the definition proposed by Mellahi (2003) is limited to de-internationalization as a voluntary engagement in the process of reducing foreign operations in response to the worsening organizational conditions in the local or international market. De-internationalization in this approach can be a mean to improve the overall profitability of TNCs.

strategic management and internationalization process management. From the perspective of economics, de-internationalization is examined as a rational response to changes in market and competitive conditions. From the perspective of strategic management, the company decides to conduct de-internationalization on the basis of the analysis of product life cycle and portfolio of activities and resources. In turn, from the point of view of the internationalization process managing, authors point out that the ongoing internationalization process of the company is itself seen as a major barrier for de-internationalization (e.g. due to the increasing involvement of senior management in operations in the international markets).

Turcan (2011) created a typology of de-internationalization processes taking two criteria into account: the degree of de-internationalization and the final result of this process (Figure 1). However, this classification does not take into consideration scale and scope of the reduction of foreign operations and does not take into account the change in degree of ownership of existing activities.

		De-internationalization continuum	
		Total	Partial
Company activity	Still in business	Total withdrawal from international activities/ continuation of activities on the domestic market	partial withdrawal from activities on foreign markets
	Out of business	Total withdrawal from activities on foreign markets/ discontinued operations	non-empirical cell

Figure 1. Typology of de-internationalization

Source: on the basis of Turcan (2011, pp. 230-232).

Turcan (2011) added the issue of de-internationalization modes to the typology presented above. In accordance with the definition proposed by Benito, Petersen and Welch (2009), he also claimed that forms of conducting business activity in foreign markets include de-internationalization. If the company undertakes a partial de-internationalization, it can reduce the scale of operations in the market or change the form of conducting business to one that requires less workforce or capital commitment. Reduction of operations' scale can be done by reorganization, withdrawal of one of the brands from a given market, or production of older version of the product. In case of changing entry mode in the foreign market, a company may decide to de-invest, de-franchise or de-export. A company which decides to de-invest may in turn change the form of business activities, e.g. to franchising, contracting-out or assets sale.

The main difference between divestment and de-internationalization is the possibility to do a multi-dimensional analysis of the phenomenon of de-internationalization. Researches on foreign divestments (and withdrawal from export activities) focus basically on the form of activities, while the scope of the analysis of de-internationalization processes may include other aspects, e.g. a products portfolio or the attractiveness of individual foreign markets. Thus, in relation to the whole company, de-

internationalization seems to be a much wider concept³. Despite these differences, it must be noted that these two processes are characterized by: 1) a voluntary or forced reduction in the degree of company's involvement on foreign markets; 2) the complete withdrawal of a company from a foreign market or partial reduction of the involvement on a given market (Reiljan, 2004).

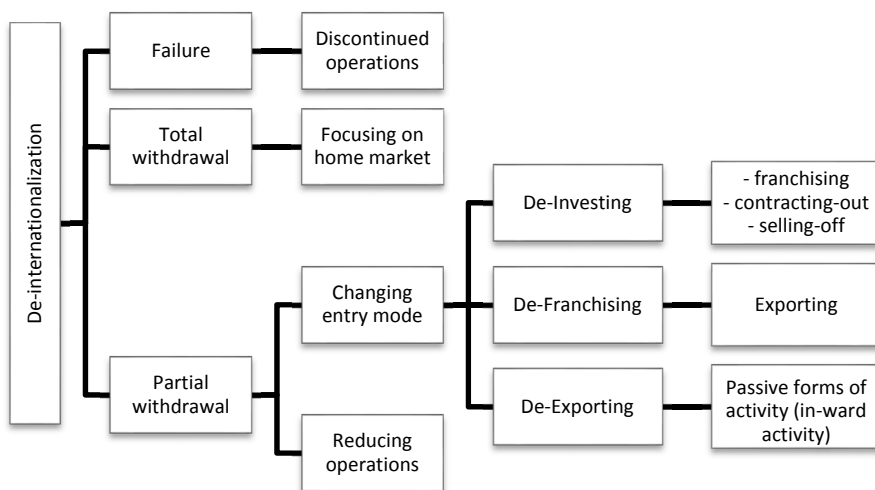


Figure 2. Modes of de-internationalization

Source: Turcan (2011, p. 42).

Motives of De-internationalization

Reiljan (2004) classified the reasons for de-internationalization basing on the analysis of empirical research on divestments and withdrawal of export activity. She also highlighted four groups of factors influencing the decision to reduce involvement in foreign markets. As she points out, the motives may result from lack of international experience, strategic changes, poor financial results or increase of costs and “other factors”.

The group of motives related to lack of experience include, *inter alia*, insufficient market analysis preceding the process of internationalization, too early / too late started expansion into the foreign markets, lack of information, wrong choice of target market or inappropriate entry mode. A lack of experience in foreign markets may also result in maladjustment of the product and insufficient adaptation to the foreign market requirements. A partial or complete de-internationalization can also result from changes in the business strategy, including, e.g. rationalizing company's activities, focusing on the key areas of company's activities, changes in management, the increase in demand on the domestic market, a shortage of necessary resources (including qualified staff) and consequently limited production capacity or changes in the operation in the given foreign market. In a group of reasons connected with poor financial results or an increase in

³ De-internationalization is sometimes a preparation to re-internationalization. Welch and Welch [2009], while exploring the issue of re-internationalization, have defined it as a process of internationalization of a company, with a temporary withdrawal from a foreign market, finished with a successful comeback.

incurred costs Reiljan (2004) has listed an advancing competitive pressure (in the country of origin, in the host country and in other countries), rising production costs, transportation costs and taxes. Among the "other reasons" the author has pointed out de-internationalization processes of related industries, external shocks, governmental interventions and ownership changes.

Reasons related to the lack of experience are most important at an early stage of expansion into international markets. At a later stage of internationalization, the most important reason for de-internationalization seems to be an increase in costs resulting for example from changes in the economic situation on foreign markets. At the most advanced stages of internationalization, a frequently occurring reason for de-internationalization is reorganization and a change of the company's strategy. As indicated by Mińska-Struzik and Nowara (2014), in the case of de-internationalization of activities resulting from financial or strategic motives, this process is not generally followed by reduction of the involvement in foreign markets, but rather by changes of host markets and/or entry modes.

Often, despite obvious reasons to conduct de-internationalization, the decision on withdrawal from operations in foreign markets is not ultimately adopted. The main reasons for postponing de-internationalization are reluctance to admit a defeat and a large connection of foreign branch with the other activities of the company. The fact is that the decision to withdraw from activities on the foreign market is not easy, especially when making it may be hindered by factors which constitute exit barriers (Porter, 1976).

In Search of the Definition and Motives of Backshoring

The IB literature have repeatedly called into question the benefits of captive offshoring and offshore outsourcing, noting a big difference between the value of savings initially estimated by the companies and their actual achieved profits (Leibl, Nischler, Morefield & Pfeiffer, 2009). The debate among researchers, business practitioners and politicians about the need for re-industrialization of developed countries is largely based on expectations that the return of manufacturing companies that have previously moved part of their operations to low-cost countries, will contribute to restoration of (industrial) competitiveness of developed countries (Ioia & Leirião, 2014).

Although the scale of re-industrialization remains limited, the number of companies that have decided to backshore is growing rapidly. It is difficult to accurately assess how common is this phenomenon, as there is no fully reliable data. The problem with estimating the scale of backshoring also stems from the fact that this concept is not clearly defined⁴. Basically, backshoring concerns transfer of business processes, production and services that have been transferred to an offshore (or nearshore) location, back to the country of origin (Arnbjørn & Mikkelsen, 2014). In other words, backshoring is a form of reshoring, which itself is a reversal of offshoring and can refer simply to change of the location (Gray, Skowronski, Esenduran & Rungtusanatham, 2013)⁵.

⁴ In the literature there are also other terms defining backshoring, e.g. „back sourcing“, „insourcing“, „inshoring“, „on-shoring“, „home-shoring“ or „repatriating manufacturing“ etc.

⁵ Fratocchi *et al.* (2014) divide reshoring into: back-reshoring – meaning a return to the home country, and near-reshoring – meaning a transfer of business processes to the location close to the home country.

The variety of definitions result from the concentration of authors on various aspects of this phenomenon, although almost all researchers accept that backshoring refers to the earlier delocalized manufacturing processes, regardless of the business model adopted on the foreign market (outsourcing or insourcing). Thus, backshoring covers the case of partial repatriation of offshored production processes⁶ (which may concern a whole foreign branch or some of company's functional areas). One of the basic conditions of backshoring is also the aim of the company to satisfy a demand in the home / local market from the point of view of the parent company⁷. Therefore, it can be generally assumed that backshoring means a strategic, voluntary decision to relocate previously delocalized modules of the value chain to its country of origin, regardless of whether these processes are or will be implemented under their ownership structures or through outsourcing. This phenomenon relates to a physical location, not the ownership itself, which is why manufacturing backshoring can be analysed from different perspectives, and as a result, four possible options of backshoring can be identified. The company can provide a demand for products on the domestic market by:

- Option 1: the transfer of production from its own foreign branch (captive offshoring) to the internal structures of the company on its home market (so-called “in-house backshoring”).
- Option 2: the transfer of production activities from its own foreign branch to an external supplier on its home market (backshoring for outsourcing).
- Option 3: the transfer of production activities from the foreign supplier (offshore outsourcing) to the internal structures of the company on its home market (backshoring for insourcing).
- Option 4: the transfer of production activities from the foreign supplier to an external supplier on its home market – the change relates only to geographical boundaries (outsourced backshoring) (Młody, 2015).

The literature indicates some factors that made some companies decide to reconsider their strategies of internationalization and eventually relocate (partially or totally) production processes to the country of origin. Although in recent years a whole range of studies on backshoring has appeared (Arlbjørn and Mikkelsen, 2014; Fratocchi, Di Mauro, Barbieri, Ancarani, Lapadre & Zanoni, 2014; Kinkel, 2012; Kinkel, 2014; Martínez-Mora & Merino, 2014; Tate, Ellram, Schoenherr & Petersen, 2014; Van den Bossche, Gupta, Gutierrez & Gupta, 2014), comprehensive empirical studies on this phenomenon are very limited.

Backshoring may be an operational action taken to correct previous decisions regarding the relocation of value chain activities, due to e.g. internal or external conditions, or as a part of a long-term strategy (Bals, Tate & Daum, 2015). According to Kinkel (2014), 80% of German backshoring activities are classified as operative corrections to managerial decisions whereas 20% are categorized as strategic adaptations to changing

⁶ The attention is paid most of all to the backshoring of production processes because of at least two reasons: 1) exit barriers for production processes are generally much higher than in the case of services, 2) offshoring of services, in contrast to offshoring of production, relates to a limited number of locations (India and East-Central Europe among others).

⁷ It is hard to imagine production relocation, targeted at Asian markets, from China to e.g. Western European countries for any economic reasons.

environmental conditions (Kinkel, 2014). However, current trend indicates moving away from managerial adaptations to strategic ones (Bals *et al.*, 2015).

It happens that companies carrying out production in foreign locations "forget" about the care of such important aspects as a high quality of products offered on the domestic market and their innovativeness (Arlbjørn & Mikkelsen, 2014; Van den Bossche *et al.*, 2014). Another important factor is also the *made in* effect, especially in the context of consumer ethnocentrism (Martínez-Mora & Merino, 2014; Tate *et al.*, 2014). The tendency of "lean" supply chains and quick reactions to consumers' needs, favours locating production close to the home markets (Kinkel, 2012). Besides, consumers expect quick delivery time, which in the case of transport from Asian countries is not possible, even more so if we consider the issue of minimum orders.

Characteristics of the host country are also often cited as the basis to undertake backshoring, not only because of the increase in cost, but due to such factors as: inadequate infrastructure in host countries, unavailability of skilled manpower, high cost of coordination and control, or low level of protection of intellectual property rights (Kinkel, 2014; Pearce, 2014). Another, sometimes overlooked aspects are the investment incentives in home countries⁸ (Gray *et al.*, 2014; Tate *et al.*, 2014).

In summary, there is a whole range of factors that can motivate managers to take decision to backshore production activities back to home countries. The frequency and strength of these determinants can be influenced by the company's size and financial health, international environment (e.g. oil prices, political stability), the attractiveness of the market of the host (including e.g. market capacity) and the possibility of restoration of a local supply base in close proximity to key customers.

DISCUSSION

The concepts of divestment, de-internationalization and backshoring presented in the article indicate the fact that company's international activities should be considered in a holistic way, by analysing the motives and conditions of the decisions taken in the context of both directions of internationalization processes. The company cannot introduce backshoring strategy of de-internationalization (effect) if its activities were not previously relocated (cause)⁹. Therefore, de-internationalization is a strategic business decision, aimed at optimizing company's operations. Similarly, backshoring can be interpreted as an action to *de facto* improve the functioning of the company in the long run.

Based on the above literature review, it can be concluded that backshoring shares some similarities with de-internationalization and international divestments. Given the broad definition of de-internationalization, understood as any action taken by the company (both forced and voluntary), which results in reduction of involvement in activities on foreign markets (Benito & Welch, 1997), backshoring may be considered even as a certain kind of de-internationalization. On the other hand, these concepts lack several key features of the backshoring phenomenon, such as manufacturing outsourcing

⁸ Examples of the investment incentives have been described in e.g. World Investment Report 2014 (UNCTAD, 2014, p. 109).

⁹ Benito and Welch (1997) have considered whether the particular factors, which cause the level of company's internationalization to rise, work also in the opposite direction, causing and enhancing processes of de-internationalization.

(Fratocchi *et al.*, 2015; Moradlou & Backhouse, 2015). Significant differences can be seen by analysing the motives of both processes (Table 1). Backshoring should be considered as individual strategic decision of the company, while de-internationalization can be either voluntary or forced (because of e.g. nationalization or government intervention in the host country). Reasons for backshoring may also have a non-financial nature, bound to political issues or consumer ethnocentrism. Factors that affect both de-internationalization, as well as backshoring are, *inter alia*, rising production costs in host countries, and the difficulty of coordinating operations in foreign markets. According to the analysis, companies, in the case of backshoring, pay close attention to quality, innovativeness and intellectual property protection in host countries – factors that did not constitute generally motives of de-internationalization. Besides, it is noteworthy that investment incentives for foreign operating companies in their home countries can in the future significantly contribute to remodelling of the international manufacturing system.

Table 1. Comparison of key determinants of de-internationalization and backshoring

<i>De-internationalization</i>	<i>Backshoring</i>
<p>Strategic and financial grounds:</p> <ul style="list-style-type: none"> - rationalization of business operations, - restructuring of the foreign operations portfolio / strategic repositioning, - low income derived from operations on a foreign market, - increase in the production / logistics costs, - financial losses / weak financial position of the company in comparison with competitors operating on the given market. 	<p>Strategic and financial grounds:</p> <ul style="list-style-type: none"> - innovativeness – higher in the home country, - improvement of products quality, - the ability to automate production, - reduction of supply chain risk, - increase the production / logistics costs in host countries, - improving the response to the demands of consumers / consumer proximity.
<p>Market and organizational motives:</p> <ul style="list-style-type: none"> - wrong choice of target market or the entry mode, - mismatch of products – insufficient adaptation to the foreign market/lack of market research and analyses, - the loss of a competitive advantage on the foreign market / increase in competitive pressures, - unfavourable prospects for development of the industry - lack of staff resources needed to conduct foreign operations, - lack of knowledge and experience, - insufficient control of foreign affiliates, - ownership changes, - government interventions in the host country. 	<p>Market and organizational motives / associated with the production site:</p> <ul style="list-style-type: none"> - investment incentives in home countries, - the <i>made in effect</i>, - inadequate infrastructure and adverse legal conditions in the host countries, - low level of intellectual property protection, - unavailability of skilled manpower in the host countries, - the high cost of coordination and control, - cultural distance.

Source: own elaboration on the basis of 1) de-internationalization (Benito, 2005; Benito & Welch, 1997; Boddewyn, 1979; Duhaime & Grant, 1984; Hamilton & Chow, 1993; Reiljan, 2004); 2) backshoring (Arlbjørn & Mikkelsen, 2014; Fratocchi *et al.*, 2014; Gray *et al.*, 2013; Kinkel, 2012; Kinkel, 2014; Martínez-Mora & Merino, 2014; Tate *et al.*, 2014; Van den Bossche *et al.*, 2014).

Moreover, while both de-internationalization and divestment refer to the case in which wholly dependent organizational units are partially or completely withdrawn from the market, backshoring may include actions both outsourced to foreign suppliers and insourced within the subsidiaries. Research on de-internationalization does not also

indicate a transfer of production processes to the company's home country, which is a fundamental condition of backshoring. In summary, it seems that backshoring, despite having some common characteristics with the other two concepts, is characterized by a larger range of other reasons, motives and distinct decision-making processes, and thus, it may constitute an individual concept. This is consistent with the opinion of Fratocchi *et. al.* (2015) who argue that concept of backshoring has some specific characteristics suggesting a separate conceptualization in the international business literature. Simultaneously, it does not correspond to the structure of equity of divestment proposed by UNCTAD (2013, p. 27), in which backshoring is considered as one of the forms of divestments.

CONCLUSIONS

The paper has focused on the processes of de-internationalization, divestments and backshoring, to present a multi-dimensional comparative analysis of motives, governance structure of relocated activities and the level of the company's voluntariness in the context of these three processes. Based on the literature studies, it can be concluded that both de-internationalization and backshoring are the next steps of internationalization which aim mainly for the optimization of company's operations. Reduction in the level of internationalization can in fact accelerate the overall development of the company and consequently result in stronger international involvement in long term (Turcan, 2011). Despite some similarities between these phenomena, the concept of de-internationalization (and divestments as a part of it) cannot, however, serve as an explanation of backshoring activities, because of the different scope and motives of enterprises and the level of voluntariness of relocation of manufacturing processes to home countries.

Limitations of the article are related to the still insufficient amount of empirical research on de-internationalization and backshoring, and despite some attempts in recent years to develop a holistic model of internationalization of enterprises the works on a concept, which would cover all current processes in international business are still rare. Future research should focus on the comparison of the motives and circumstances of both the initial relocation and, subsequently, backshoring / de-internationalization of production processes. In particular, these internal conditions, which make companies more susceptible to these processes should be taken into account. This could enable to define in detail the decision-making process in the context of a long-term strategy of internationalization. Besides, future studies should include analysis of dependencies between motives of companies' relocations (using categorisation such as Table 1.) and companies' characteristics like e.g. size of the company, the industry it operates in, governance mode and the specificity of home/host country. Little is also known about the impact of the decisions to backshore/de-internationalise, on the overall financial performance of the company – what are the real costs and profits. Research in this area will be a huge challenge for the scientists because of the necessity of a deep analysis of the broad network of dependencies in complicated paths of location decisions.

In the current economic reality, managers are forced to make strategic decisions on the effective management of portfolios of foreign operations, and therefore companies constantly adjust their structure, resources and strategies to rapidly changing conditions

within the company and in its external environment. Hence the interest in this subject seems to be extremely important from the point of view of business practice, especially in the context of, among others, volatile international markets, rising wage costs in China and political pressures associated with the trend of re-industrialisation.

REFERENCES

- Arlbjørn, J.S., & Mikkelsen, O.S. (2014). Backshoring manufacturing: Notes on an important but under-researched theme. *Journal of Purchasing and Supply Management*, 20(2), 60-62.
- Bals, L., Daum, A., & Tate, W. (2015). From Offshoring to Rightshoring : Focus on the Backshoring Phenomenon. *Academy of International Business Insights*, 15(4), 3-8.
- Benito, G. (2005). Divestment and international business strategy. *Journal of Economic Geography*, 5(2), 235-251.
- Benito, G., & Welch, L. (1997). De-Internationalization. *Management International Review*, 37(2), 7-25.
- Benito, G., Petersen, B., & Welch, L. (2009). Towards More Realistic Conceptualisations of Foreign Operation Modes. *Journal of International Business Studies*, 40(9), 1455-1470.
- Boddewyn, J. (1979). Foreign divestment. Magnitude and factors. *Journal of International Business Studies*, 10(1), 21-27.
- Burt, S., Dawson, J., & Sparks, L. (2003). Failure in International Retailing: research propositions. *International Review of Retail Distribution and Consumer Research*, 13(4), 355-373.
- Calof, J., & Beamish, P. (1995). Adapting to Foreign Markets: Explaining Internationalization. *International Business Review*, 4(2), 115-131.
- Chow, Y.K., & Hamilton, R.T. (1993). *Corporate divestment: An overview*. *Journal of Managerial Psychology*, 8(5), 9-13.
- Cranfield University (2015). *An Analysis of the UK's Capability to Reshore Production*. A White Paper by Cranfield University.
- Duhaime, I.M., & Grant, J.H. (1984). Factors influencing divestment decision-making: Evidence from a field study. *Strategic Management Journal*, 5(4), 301-318.
- Fletcher, R. (2001). A holistic approach to internationalization. *International Business Review*. 10(1), 25-49.
- Fratocchi, L., Di Mauro, C., Barbieri, P., Ancarani, A., Lapadre, L., & Zanoni, A. (2014). Manufacturing Reshoring: Threat or opportunity for East Central Europe and Baltic Countries. In A. Zhuplev. & K. Liuhto (Ed.), *Geo-Regional Competitiveness in Central and Eastern Europe, the Baltic Countries, and Russia* (pp. 83-118). Hershey, PA: IGI Global.
- Fratocchi, L., Ancarani, A., Barbieri, P., Di Mauro, C., Nassimbeni, G., Sartor, M., Vignoli, M., & Zanoni, A. (2015). Manufacturing back-reshoring as a nonlinear internationalization process. In R. van Tulder, A. Verbeke & R. Drogendijk (Ed.), *The Future of Global Organizing (Progress in International Business Research* (pp. 365-403). Emerald Group Publishing Limited.
- Gray, J.V., Skowronski, K., Esenduran, G., & Rungtusanatham, J.M. (2013). The reshoring phenomenon: What supply chain academics ought to know and should do. *Journal of Supply Chain Management*, 49(2), 27-33.
- Ioia, E.M., & Leirião, J.C. (2014). *Opinion of the European Economic and Social Committee on the Reshoring of EU industries in the framework of reindustrialization*. Retrieved on January 10, 2016 from *European Economic and Social Committee*: <http://eur-lex.europa.eu>

- Kinkel, S. (2014). Future and impact of backshoring – Some conclusions from 15 years of research on German practices. *Journal of Purchasing and Supply Management*, 20(2), 63-65.
- Kinkel, S. (2012). Trends in production relocation and backshoring activities. *International Journal of Operations & Production Management*, 32(6), 696-720.
- Leibl, P., Nischler, C., Morefield, R., & Pfeiffer, R. (2009). An analysis of off-shoring manufacturing to reduce costs. *Journal of Business and Behavioural Sciences*, 21(1), 130-139.
- Martínez-Mora, C., & Merino, F. (2014). Offshoring in the Spanish footwear industry: a return journey?. *Journal of Purchasing & Supply Management*, 20(4), 225-237.
- Mata, J., & Portugal, P. (2000). Closure and Divestiture by Foreign Entrant: The Impact of Entry and Post-Entry Strategies. *Strategic Management Journal*, 21(5), 549-562.
- Mellahi, K. (2003). The De-internationalization Process: A Case Study of Marks and Spencer. In C. Wheeler, F. McDonald & I. Greaves (Ed.), *Internationalization: Firm Strategies and Management* (pp. 150–162). Palgrave Macmillan UK. doi: 10.1057/9780230514638
- Mińska-Struzik, E., & Nowara, W. (2014). Dylematy badań nad internacjonalizacją przedsiębiorstwa. *International Business and Global Economy*, 33, 394-405.
- Młody, M. (2015). Istota i motywy podejmowania przez przedsiębiorstwa strategii reshoringu. *Prace Naukowe Wyższej Szkoły Bankowej w Gdańsku*, 40, 209-223.
- Moradlou, H., & Backhouse, C. (2015). *Re-shoring UK Manufacturing Activities, Supply Chain Management & Postponement Issues*. Paper presented at the 18th Annual Cambridge International Manufacturing Symposium: Capturing value from global networks: implications for manufacturing, supply chains and industrial policy. Retrieved on January 10, 2016 from <http://www.ifm.eng.cam.ac.uk>
- Pearce, J.A. (2014). Why domestic outsourcing is leading America's reemergence in global manufacturing. *Business Horizons*, 57(1), 27-36.
- Porter, M.E. (1976). Please note location of nearest exit: Exit barriers and planning. *California Management Review*, 19(2), 21-33.
- Reiljan, E. (2004). *Reasons for de-internationalization: an analysis of Estonian manufacturing companies*. Workshop paper on 30th EIBA Annual Conference: Enlarged European Union: Challenges to International Business and Management, Ljubljana.
- Simoës, V.C. (2005). *Divestment by foreign-based companies: Portuguese experiences*. Paper presented at the conference: *Relocation of production and jobs to CEE countries – who gains and who loses? Hamburg*: Hamburg Institute of International Economics.
- Tate, W.L., Ellram, L.M., Schoenherr, T., & Petersen, K.J. (2014). Global competitive conditions driving the manufacturing location decision. *Business Horizons*, 57(3), 381-390.
- Turcan, R.V. (2011). *De-internationalization: A conceptualization*. Paper presented at AIB-UK & Ireland Chapter Conference: International Business: New challenges, new forms, new practices, Edinburgh, United Kingdom.
- UNCTAD (2013). *World Investment Report 2013: Global Value-Chains: Investment and Trade for Development*. New York and Geneva: UNCTAD.
- UNCTAD (2014). *World Investment Report 2014: Investing in the SDGs: An Action Plan*. New York and Geneva: UNCTAD.
- Van den Bossche, P., Gupta, P., Gutierrez, H., & Gupta, A. (2014). Solving the Reshoring Dilemma. *Supply Chain Management Review*, 18(1), 26-33.
- Welch, C., & Welch, L. (2009). Re-internationalization. Exploration and conceptualisation. *International Business Review*, 18(6), 567-577.

Welch, L., & Luostarinen, R. (1988). Internationalization: Evolution of a Concept. *Journal of General Management*, 14(2), 34-55.

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Corporate Reputation and Performance: A Legitimacy Perspective

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ABSTRACT

Objective: The objective of this paper is to investigate the mediating role of innovation legitimacy between corporate reputation and enterprise growth.

Research Design & Methods: Four hypotheses were formulated and tested in to achieve the research objective. We collected data from 191 enterprises in 16 provinces in China. In total, 300 enterprises were selected to participate in this study. Descriptive analyses showed that the valid data covered a wide range of samples in terms of enterprise types and sizes, industries, market positions and years of establishment. The data was analysed by regression analysis.

Findings: The results of this research suggest that corporate reputation has significant positive relationship with enterprise growth. This positive relationship was found through all pathways tested. This means that brand image, social responsibility, innovation capability and staff quality are all important to enterprise growth. Similar effects were found for innovation legitimacy on enterprise growth, indicating that legitimacy is an important theoretical perspective in understanding how businesses could develop in various important aspects.

Implications & Recommendations: Legitimacy is an important theoretical framework in understanding the complex relationships between corporate reputation and enterprise growth, especially from the innovation perspective. Future research may look into these results in other contexts and further pursue the legitimacy perspective in understanding corporate reputation and enterprise growth.

Contribution & Value Added: This research contributes towards understanding the mediating effects of innovation legitimacy between corporate reputation and performance, especially in Chinese context.

Article type: research paper

Keywords: corporate reputation; enterprise growth; legitimacy; innovation; China

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INTRODUCTION

Being argued to be the most valuable organisational asset (Gibson, Gonzales & Castanon, 2006) and intangible resource (Hall, 1993), corporate reputation has long been acknowledged as a significant source of sustained competitive advantage (Fombrun & Shanley, 1990). Not surprisingly, research evidence shows that corporate reputation has significant implications on a variety of organisational and business issues including costs (Deephouse, 2000) and pricing policies (Rindova, Williamson, Petkova & Sever, 2005). It has been argued that corporate reputation also has long-term effects on firms (Fang, 2005). Amongst these scholarly efforts, positive links between corporate reputation and firm performance have been established (Fombrun & Shanley, 1990).

Concurrent with the growth of empirical evidence showing positive links between corporate reputation and firm performance that has been spanning over a quarter century, the existing research is largely focused on the theoretical framework of the resource-based view (RBV) (Barney, 1991). While useful, this emphasis may fail to explain the complex relationships between the two variables (Carmeli & Tishler, 2005). This paper seeks to contribute to our understanding of the complexity of relationships between corporate reputation and firm performance through the lens of legitimacy (Suchman, 1995). Specifically, the objective of this study is to investigate the potential mediating role of innovation legitimacy between corporate reputation and enterprise growth. By analysing quantitative data collected from Chinese enterprises, our findings suggest that innovation legitimacy has a significant mediating effect on the positive correlations between corporate reputation and enterprise growth.

The remaining of this article is structured as follows. First, we review literature to show how innovation legitimacy may act as a mediator between different dimensions of corporate reputation and enterprise growth. We construct a conceptual model to illustrate the hypothesised pathways between variables based on our review of relevant research. In the next section, we explain our sampling and data collection procedures as well as how these data were analysed by statistical tools. Detailed analyses and results will be demonstrated next before we will discuss these results and the implications. We then discuss the limitations of this research and point out future research directions. We conclude our research in the final section of this article.

LITERATURE REVIEW

This section reviews research on legitimacy, corporate reputation and firm performance to derive hypotheses for this study. We begin by reviewing literature on corporate performance.

Corporate Reputation

Corporate reputation, for this study, is broadly understood as a perceptual representation of an organisation regarding a set of its attributes associated with or inferred from the organisation's past activities, referring to both perceived identity and image of an organisation. While organisational identity has an internal focus and organisational image usually refers to internal audiences, corporate reputation tends to involve percep-

tions of all stakeholders (Walker, 2010). The most studied theoretical perspective within corporate reputation literature is RBV. Studies from the RBV perspective view corporate reputation as an unreplaceable resource of the company that may lead to sustained competitive advantages and examine how such effects are resulted (Flanagan & O'Shaughnessy, 2005), for example, through uncertainty reduction by signalling product quality (Rindova *et al.*, 2005). Another frequently used theory in the literature is signalling theory, focusing on strategic organisational signals that are perceived and decoded by the stakeholders. For example, Basdeo, Smith, Grimm, Rindova and Derfus (2006) applied corporate reputation into explaining how stakeholders may view a company's strategic choices as signals sent by the company to form impressions. From this perspective, social perceptions may influence corporate reputation (Turban & Greening, 1997). Many scholars have studied corporate reputation from other theoretical perspectives including game theory (Milgrom & Roberts, 1982), stakeholder theory (Cable & Graham, 2000), social identity theory (Turban & Greening, 1997) and mass communication theory (Deephouse, 2000). Within a number of theories studied, a predominant theoretical perspective is institutional theory whereby the focus is on institutional contexts and reputation building. Institutional theory is used in the literature to investigate how organisations can gain socio-cultural legitimacy to enhance organisational reputation by exploring their institutional contexts. From this perspective, environmental contexts of an organisation are crucial to its reputation in order to legitimate its activities. This study extends the literature by putting the spotlight on organisational innovation legitimacy.

Organisational Innovation Legitimacy

Legitimacy may be broadly understood as a generalised perception that an entity, and/or its actions, is justified according to a societal culture. As an important source of organisational resources, legitimacy enhances the stability of organisational innovation because organisational innovation that are perceived to be appropriate and desirable tend to receive more resources from stakeholders (Parsons, 1960) and have less collective action problems (Olson, 1965). Since legitimacy involves a collective rationale explaining the actions and purposes of an organisation (Jepperson, 1991), legitimate organisations are likely to be more comprehensible and thus ready to sustain.

Within the existing literature, legitimacy has been studied from different perspectives. For example, Dowling and Pfeffer (1975) suggest that organisational actors may support a company policy based on the policy's expected value to them, implying a kind of exchange legitimacy. Organisations may also possess dispositional legitimacy, evidenced by the fact that organisational actors often perceive, or act as though that, organisations have personalities including interests, styles and tastes (Pfeffer, 1981). From an evaluative angle, moral legitimacy reflects a normative assessment of organisational actions (Aldrich & Fiol, 1994), indicating judgements on whether the organisation is 'doing the right thing'.

From a consequential perspective, Scott and Meyer (1991) tested organisational consequential measures such as automobile emission standards and hospital mortality rates to test organisational effectiveness. Structurally, organisations may be viewed as categorically legitimate whereby organisational legitimacy resides in its morally favoured structural characteristics (Zucker, 1986). Individually, organisational legitimacy may rest

on the leaders in the organisation, albeit such personal legitimacy may be more transitional and idiosyncratic (Zucker, 1986). Finally, legitimacy may be studied on a cognitive level, indicating taken-for-granted assumptions and beliefs about the organisations and their activities (Jepperson, 1991).

The studies of organisational legitimacy dynamics focusing on cognition are different from legitimacy based on evaluation or interests, as cognitive legitimacy does not involve a positive or negative evaluation of organisations (Aldrich & Fiol, 1994). Grounded on this cognitive angle, this paper extends the literature by studying legitimacy based on perceptions of the level of legitimacy on organisational innovations. The next section reviews literature on corporate performance.

Corporate Performance

In this study, we examine corporate performance through the lens of enterprise growth. Sustained growth of a corporation is an understandable organisational objective that guides organisational strategies and management practices. Although the goal to grow may appear more important for relatively smaller companies, interestingly, research shows that organisational growth does not need to depend on the size of the organisations (Lee, 2010). Within the enterprise growth literature, a commonly accepted claim is that it relates significantly to organisational innovation. Akman and Yilmaz (2008) suggested that innovation is an important way for companies to sustain and develop their corporate performance and maintain long-term success. Similarly, it is suggested that innovation may lead to business growth in the long run (Cho & Pucik, 2005). Since it is well established that corporate performance relates to corporate reputation, and based on the above review on organisational legitimacy, the claim that innovation may be an important strategic tool to achieve enterprise growth gives a ground to study the complex relationships between corporate reputation, innovation legitimacy and enterprise growth. The next subsection explains the specific hypotheses of this study.

Hypotheses

Several hypotheses may be derived for testing the relationships between corporate reputation, innovation legitimacy and enterprise growth from the reviewed theoretical frameworks. The first hypothesis tests a direct relationship between corporate reputation and enterprise growth. From the RVB point of view, corporate reputation is a source of valuable and rare resources sustaining competitive advantages of organisations. Following on from this, Fombrun and Shanley (1990) argue that sound corporate reputation is positively related to expected return on investments, which may stimulate enterprise growth. Moreover, Petkova, Wadhwa, Yao and Jain (2014) indicate that a firm's reputation can increase its future performance. Taking a similar view, Gatzert (2015) evidence also that it is of high relevance between corporate reputation and corporate financial performance. We therefore put forward the first hypothesis as below:

H1: There is a positive correlation between corporate reputation and enterprise growth.

As already pointed out in the literature review, innovation is a crucial means to sustain long-term business growth. The positive relationship between innovation and business growth has been tested and proven under many different circumstances. For exam-

ple, Eluinn (2000) suggested that innovation drives growth in outsourcing, while Grossman and Helpman (1993) claimed that innovation is an engine for growth in a global context. As legitimacy is a related concept to institutional theory which is a predominant framework in understanding corporate reputation, we hypothesise that innovation legitimacy may mediate the positive relationship between corporate reputation and enterprise growth:

H2: Innovation legitimacy has mediating effects between corporate reputation and enterprise growth.

Organisation can gain on the base of continuous innovation, product service only constantly updates to ensure to meet the public's changing needs. Also, the corporate reputation will affect people's perception of new products and services, good reputation to obtain people's identity to new products and services, such as brand effect. Public's loyalty is higher, the easier it is to accept the brand's other innovative products. Every new products /services will face the liability of newness when it enters the market, and the constraint of legitimacy is the main reason. Corporate reputation is very important for gaining innovation legitimacy, the public's loyalty to enterprise will directly affect the public's perception of products and services, and then will affect the innovation legitimacy. From the sociology perspective, to build a reputation is an effective way to obtain legitimacy. Petkova (2016) argue that new firm's reputation is significantly important to enhance legitimacy under conditions of high or extreme market uncertainty. Therefore, corporate reputation is established on base of the public's wide acceptance, Social approval is the base to obtain the innovation legitimacy.

New institutionalism theory believes, that direct cause of the high mortality of new enterprises is the lack of legitimacy, some start-up failure is due to the lack of social public trust, and not to very well solve legitimacy problem, rather than because of market constraints. enterprise growth is realised in the enterprise innovation gradually, innovation legitimacy is crucial for an enterprise to grow. Once enterprise has got innovation legitimacy, that means innovation will be accepted by government and related department, and can meet the requirements of social moral and values, and is accepted by the public. New products and services will face the new barriers to market entry. Enterprise needs to overcome the constraint of public cognitive legitimacy, and to help enterprise grow. Therefore, innovation legitimacy become the important factor for enterprise growth. High legitimacy likely win the support of stakeholders, enterprise can acquire important resources, cooperation and knowledge transfer, help enterprise accelerate to grow.

Based on these analyses, and related to H2 hypothesis, there are two additional hypotheses to further clarify the complex relationships between corporate reputation, innovation legitimacy and enterprise growth, so we set forth the below hypotheses for this study:

H3: Innovation legitimacy is positively related to corporate reputation.

H4: Enterprise growth is positively related to innovation legitimacy.

MATERIAL AND METHODS

Sampling

We collected data from 191 enterprises in 16 provinces in China. In total, 300 enterprises were selected to participate in this study. Out of the 246 sets of returned questionnaires, 55 were deemed invalid and excluded from this study. Descriptive analyses showed that the valid data covered a wide range of samples in terms of enterprise types and sizes, industries, market positions and years of establishment. Among the participated enterprises, majority were from Anhui province (43%), followed by those from Zhejiang (8%), Guangdong (8%), Jiangsu (7%), Shanghai (6%) and Beijing (6%). Most of these respondents were from private firms (46%) while the rest surveyed worked in state owned enterprises, including state share-holding enterprises (26%), foreign companies (9%) and joint ventures (6%). Majority (55.5%) of these companies were small-medium enterprises employing less than 500 employees, while almost half of them had less than 10 years of company history. Respondents were relatively evenly spread among over 10 broadly defined industries such as manufacturing, finance, transportation and real estate sectors. Similarly, they were also relatively evenly distributed in terms of market positions.

Survey Instruments

To contextualise survey instruments in China, we follow Li and Zhou's (2015) recent conceptual model and used their proposed survey instruments to conduct this research. Following Li and Zhou (2015), we anchored the questionnaire items of corporate reputation, enterprise growth and innovation legitimacy on a number of established and well-tested measures in Western and Chinese contexts (Li & Zhou, 2015). Corporate reputation was studied through four dimensions, including brand image, social responsibility, innovation capacity and staff quality (22 items in total). Innovation legitimacy was studied by regulative legitimacy, normative legitimacy and cognitive legitimacy (11 items in total). Enterprise growth was studied by six items, including performance on financial, human resources and innovation aspects. Responses were measured on a Likert scale (1 represents extremely disagree; 7 represents extremely agree).

Pilot Study

In validating measures used in this research, a preliminary study was conducted. In total, 70 samples were surveyed with a valid response rate of 96.8%. Statistic testing indicated that the measures were reliable and samples were valid, i.e., values of all items were above 0.7 and KMO values were above 0.7.

Data Analysis

We first tested the reliability of measures used in this study. The α values of all dimensions of corporate reputation were above 0.7, i.e., brand image ($\alpha = 0.793$), social responsibility ($\alpha = 0.857$), innovation capability ($\alpha = 0.875$) and staff quality ($\alpha = 0.929$). The internal reliability of these dimensions was deemed sound (CITC values were above 0.4). As well, the α values of all dimensions of innovation legitimacy were above 0.7, i.e., regulative legitimacy ($\alpha = 0.882$), normative legitimacy ($\alpha = 0.959$) and cognitive legiti-

macy ($\alpha = 0.916$). All in all, the measures used in this research were deemed to be reliable. In a similar vein, KMO values indicated that the measures were sound and valid. We firstly used The Ran correlation analyses (Spearman correlation coefficients) in this research to analyse the correlation between corporate reputation (each dimension), innovation legitimacy (each dimension) and enterprise growth. But the degree of correlation analysis can verify between closely, but cannot explain the causal relationship between them. Then, we used multiple linear regression (MLR) analysis to analyse the data and path analysis was used to examine the hypotheses (Wangbin & Yuli, 2011; Okeke, Ezeh & Ugochukwu, 2015; Jauch, Glueck & Osborn, 1978). The results of this research are explained in the next section.

RESULTS AND DISCUSSION

The research results suggested that, in supporting the existing literature, there were positive correlations between all dimensions of corporate reputation (i.e., brand image, social responsibility, innovation capability and staff quality) and enterprise growth. Therefore, hypothesis 1 was fully supported. Hypothesis 2 hypothesised that innovation legitimacy had mediating effects between corporate reputation and enterprise growth. Regression analysis results showed that this was partially supported. Among the possible mediating pathways, normative legitimacy mediated between brand image and enterprise growth, staff quality and enterprise growth, as well as social responsibility and enterprise growth, but did not have significant mediating effects between innovation capability and enterprise growth. Similarly, regulative legitimacy and cognitive legitimacy mediated between brand image and enterprise growth, innovation capability and enterprise growth and staff quality and enterprise growth, but did not have significant mediating effects between social responsibility and enterprise growth. In a similar vein, hypothesis 3 was also partially supported. Although there were significant positive correlations between innovation legitimacy and corporate reputation, such correlations between social responsibility and normative legitimacy, social responsibility and cognitive legitimacy and innovation capability and regulative legitimacy were not significant. On the other hand, hypothesis 4 was fully supported. There were significant positive correlations between all dimensions of innovation legitimacy and enterprise growth as tested in this research. Therefore, hypotheses 1 and 4 were fully supported whereas hypotheses 2 and 3 were partially supported (Table 1 and 2).

The results of this research showed that corporate reputation has significant positive relationship with enterprise growth. This positive relationship was found through all pathways tested. This means that brand image, social responsibility, innovation capability and staff quality are all important to enterprise growth. Similar effects were found for innovation legitimacy on enterprise growth, indicating that legitimacy is an important theoretical perspective in understanding how businesses could develop in various important aspects. Although the mediating role of innovation legitimacy between corporate reputation and enterprise growth was only partially supported, most pathways showed significant mediating effects of innovation legitimacy between the two variables. The results of this research imply that legitimacy is a fruitful theoretical framework in

understanding the positive correlation between corporate reputation and enterprise growth.

Table 1. Descriptive Statistics and Correlations ($n = 191$)

Variables ^a	mean	SD	1	2	3	4	5	6	7	8
1 BI	4.954	1.384	1							
2 SR	4.542	1.524	0.402**	1						
3 IC	4.951	1.397	0.632**	0.501**	1					
4 SQ	5.068	1.236	0.326**	0.411**	0.206**	1				
5 RL	4.956	1.472	0.603**	0.478**	0.432**	0.413**	1			
6 NL	5.181	1.226	0.557**	0.212**	0.598**	0.504**	0.610**	1		
7 CL	5.091	1.128	0.512**	0.204*	0.509**	0.477**	0.597**	0.754**	1	
8 EG	4.727	1.282	0.549**	0.503**	0.551**	0.429**	0.712**	0.686**	0.736**	1

^aNotes: BI-brand image, SR-social responsibility, IC-innovation capability, SQ-staff quality, RL-regulative legitimacy, NL- normative legitimacy, CL-cognitive legitimacy, EG-enterprise growth.

Source: own study based on survey data in China.

Table 2. Multiple Linear Regression

Variables ^b	Model1 (EG)	Model2 (RL)	Model3 (NL)	Model4 (CL)	Model5 (EG)	Model6 (RL mediate CR&EG)	Model7 (NL mediate CR&EG)	Model8 (CL mediate CR&EG)
CONS	1.352***	1.273***	1.045***	1.453***	1.521***	2.186***	2.351***	2.068***
BI	0.185*	0.362***	0.222**	0.207**	—	0.125+	0.151*	0.134*
SR	0.262***	0.269***	0.014	0.016	—	0.203***	0.171*	0.177**
IC	0.210**	0.029	0.340***	0.249***	—	0.189***	0.134*	0.101+
SQ	0.269***	0.222***	0.279***	0.295***	—	0.412***	0.261***	0.469***
RL	—	—	—	—	0.357***	—	—	—
NL	—	—	—	—	0.154*	—	—	—
CL	—	—	—	—	0.358***	—	—	—
Adj-R ²	0.376	0.327	0.379	0.317	0.536	—	—	—
F	29.583	29.082	29.918	21.559	74.018	40.426	33.359	43.578

^bNotes: BI-brand image, SR-social responsibility, IC-innovation capability, SQ-staff quality, RL-regulative legitimacy, NL- normative legitimacy, CL-cognitive legitimacy, EG-enterprise growth.

Source: own study based on survey data in China.

Our study shows that there are significant positive relationships between brand image, social responsibility, innovation capability, staff quality, and enterprise growth. These indicate that the higher corporate reputation, enterprise will obtain the greater opportunities of growth. Similar to Dowling and Pfeffer (2002) found that corporate reputation, being enterprise important strategic asset, has important effect to corporate performance. Enterprise with good reputation, can have a high position in the customer heart, gain customer loyalty, use intangible assets to build enterprise core competitive capability, to promote enterprise sustainable development.

Also this study found there partly exists a correlation between organisation reputation and innovation legitimacy. Similar to Dacin, Oliver and Roy (2007) it can be pointed out that entrepreneurial team reputation plays an important role in gaining the legitimacy of start-up. Brand image is helpful to make new products more accepted by government and professional institutes, and can be widely accepted by the customers, which

implies that the new product is in accordance with the public ethics and value. Our empirical research shows that the higher enterprise obtains innovation legitimacy, the better enterprise grows. Legitimacy is helpful to improve the growth performance of small and medium-sized enterprise. Enterprise's new product, which has higher innovation legitimacy, will be known and accepted by government departments, professional institutions and the public. Conforming to social values and moral standards facilitates sustainable development of enterprise.

CONCLUSIONS

Main Conclusions, Implications and Recommendations for Practice

Corporate reputation has a positive influence on enterprise growth. Brand image is useful to introduce innovative products into markets, and at the same time high reputation shows that the value of organisation is in keeping with social values, and meets social morality. That kind of organization can make the enterprise innovative products known and accepted by the public, which means that the enterprise has obtained innovation legitimacy, that can promote enterprise growth. Innovation capability can help enterprise integrate and utilise innovation resources, good corporate reputation is helpful to the development of enterprise innovation behaviour. So enterprise should pay attention to the maintenance of brand image, to be responsible for products, customers, shareholders and employees. And to be able to find new market demand, to raise their ability to innovate, to follow the principle of being people-oriented, to attract more qualified talents to join, in order to realize the sustainable growth of enterprise.

Innovation legitimacy plays an important role in the enterprise growth process. Enterprise growth must depend on innovation, and innovation legitimacy has become the important influence factor of enterprise innovation to be realised. Regression analysis shows that there is a significant correlation between normative legitimacy, regulative legitimacy, cognitive legitimacy, and enterprise growth. At the same time, regulative legitimacy, normative legitimacy, cognitive legitimacy, has a mediating effects between corporate reputation and enterprise growth. This suggests that good corporate reputation can help enterprises obtain customer resources, the accumulation of customer resources can promote enterprise technology innovation. Good corporate reputation can bring high customer loyalty for a long time, thus greatly reduce the time of the innovation product accepted by market, innovative products can more quickly overcome the entering defect of the market.

There are significantly positive relationships between Innovation legitimacy and corporate reputation of brand image, staff quality. Moreover, corporate reputation of social responsibility is significantly related to regulative legitimacy, innovation capability is positively related to normative legitimacy and cognitive legitimacy. This suggests that it is particularly important for enterprises in lack of regulative legitimacy, to strengthen brand imagine maintenance, and social responsibility, and to improve staff quality. When an enterprise lacks normative legitimacy and cognitive legitimacy, it is important for enterprise to enhance the corporate reputation of brand image, innovation capability, and staff quality. In case of lack of innovation legitimacy enterprise may take steps to

obtain in accordance with the different correlation of each dimension of corporate reputation.

Limitation and Future Research Direction

This research was conducted in Chinese context and its measures were highly contextualised. Although the reliability and validity of these measures were tested to be acceptable, the generalisability of the results in other societal contexts may not be granted. This is especially worthy of attention as legitimacy is a cultural product. Future research is encouraged to further pursue the theoretical framework of legitimacy in understanding enterprise growth, corporate reputation and their relationships. The generalisability of the research results may be further tested in Western contexts in the future.

This research studied the mediating effects of innovation legitimacy between corporate reputation and enterprise growth. Its results suggested that innovation legitimacy significantly mediated the positive relationship between the other two variables. In supporting the existing literature, positive correlations between corporate reputation and enterprise, and innovation legitimacy and enterprise growth were also found. Future research may look into these results in other contexts and further pursue the legitimacy perspective in understanding corporate reputation and enterprise growth.

REFERENCES

- Akman, G., & Yilmaz, C. (2008). Innovative capability, innovation strategy and market orientation: an empirical analysis in Turkish software industry. *International Journal of Innovation Management*, 12(1), 69-111.
- Aldrich, H.E., & Fiol, C.M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review*, 19, 645-670.
- Petkova, A.P. (2016). Standing Out or Blending In? The Formation of New Firms' Legitimacy and Reputation under Different Levels of Market Uncertainty. *Corporate Reputation Review*, 19(1), 22-34.
- Petkova, A.P., Wadhwa, A., Yao, X., & Jain, S. (2014). Reputation and Decision under Ambiguity: A Study of U.S. Venture Capital Firms, Investments in the Emerging Clean Energy Sector. *Academy of Management Journal*, 57(2), 422-448.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Basdeo, D.K., Smith, K.G., Grimm, C.M., Rindova, V.P., & Derfus, P.J. (2006). The impact of market actions on firm reputation. *Strategic Management Journal*, 27, 1205-1219.
- Cable, D.M., & Graham, M.E. (2000). The determinants of job seekers' reputation perceptions. *Journal of Organizational Behavior*, 21(8), 929-947.
- Carmeli, A., & Tishler, A. (2005). Perceived organizational reputation and organizational performance: An empirical investigation of industrial enterprises. *Corporate Reputation Review*, 8(1), 13-30.
- Cho, H.J., & Pucik, V. (2005). Relationship between innovativeness, quality, growth, profitability, and market value. *Strategic Management Journal*, 26(6), 555-575.
- Dacin, M.T., Oliver, C., & Roy, J. (2007). The legitimacy of strategic alliances: an institutional perspective. *Strategic Management Journal*, 28(2), 169-187.

- Deephouse, D.L. (2000). Media reputation as a strategic resource: An integration of mass communication and resource-based theories. *Journal of Management*, 26(6), 1091–1112.
- Dowling, J.E., & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, 18, 122-136.
- Eluinn, J.B. (2000). Outsourcing innovation: the new engine of growth. *Sloan Management Review*, 41(4), 13-28.
- Fang, L.H. (2005). Investment bank reputation and the price and quality of underwriting services'. *The Journal of Finance*, 60(6), 2729-2761.
- Flanagan, D.J., & O'Shaughnessy, K.C. (2005). The effect of layoffs on firm reputation. *Journal of Management*, 31(3), 445–463.
- Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy Of Management Journal*, 33(2), 233-258.
- Gibson, D., Gonzales, J.L., & Castanon, J. (2006). The importance of reputation and the role of public relations. *Public Relations Quarterly*, 51(3), 15-18.
- Grossman, G.M., & Helpman, E. (1993). *Innovation and growth in the global economy*. MIT press. Retrieved on April 30, 2016 from <https://mitpress.mit.edu/books/innovation-and-growth-global-economy>
- Hall, R. (1993). A framework linking intangible resources and capabilities to sustainable competitive advantage. *Strategic Management Journal*, 14(8), 607–618.
- Jauch, L.R., Glueck, W.F., Osborn, R.N. (1978). Organizational Loyalty, Professional Commitment, and Academic Research Productivity. *Academy of Management*, 21(1), 84-92.
- Jepperson, R.L. (1991). Institutions, institutional effects, and institutionalism. In W.W. Powell, & P.J. DiMaggio (Eds.), *The new institutionalism in organizational analysis*: (pp. 143-163). Chicago: University of Chicago Press.
- Lee, C.Y. (2010). A theory of firm growth learning capability, knowledge threshold, and patterns of growth. *Research Policy*, 39(2), 278-289.
- Li, H.G., & Zhou, J. (2015). Organization reputation and enterprise growth: the mediating role of innovation legitimacy. *Science & Technology Progress and Policy*, 32(10), 84-87.
- Milgrom, P., & Roberts, J. (1982). Predation, reputation, and entry deterrence. *Journal of Economic Theory*, 27, 280–312.
- Gatzert, N. (2015). The impact of corporate reputation and reputation damaging events on financial performance: Empirical evidence from the literature. *European Management Journal*, 33(6), 485–499.
- Okeke, T.C., Ezeh, G.A., & Ugochukwu, N.O.A. (2015). Service Quality Dimensions and Customer Satisfaction with Online Services of Nigerian Banks. *Journal of Internet Banking and Commerce*, 20(3).
- Olson, M. (1965). *The logic of collective action*. Cambridge, MA: Harvard University Press.
- Parsons, T. (1960). *Structure and process in modern societies*. Glencoe, IL: Free Press.
- Pfeffer, J. (1981). Management as symbolic action: The creation and maintenance of organizational paradigms. In L.L. Cummings, & B.M. Staw (Eds.), *Research in organizational behavior: an annual series of analytical essays and critical reviews* (pp. 1-52). Amsterdam: Elsevier.
- Rindova, V.P., Williamson, I.O., Petkova, A.P., & Sever, J.M. (2005). Being good or being known: An empirical examination of the dimensions, antecedents, and consequences of organizational reputation. *Academy of Management Journal*, 48(6), 1033–1049.

- Scott, W.R., & Meyer, J.W. (1991). The organization of societal sectors. In W. W. Powell, & P.J. DiMaggio (Eds.), *The new institutionalism in organizational analysis* (pp. 108-140). Chicago: University of Chicago Press.
- Suchman, M.C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571-610.
- Turban, D.B., & Greening, D.W. (1997). Corporate social performance and organizational attractiveness to prospective employees. *Academy of Management Journal*, 40, 658–672.
- Walker, K. (2010). A systematic review of the corporate reputation literature: definition, measurement, and theory. *Corporate Reputation Review*, 12(4), 357-387.
- Wangbin, H., & Yuli, Z. (2011). New Venture Capability of the Transformation from Entrepreneurial Orientation to the New Venture Performance: A Theory Model and Empirical Study in China. *Nankai Business Review*, 14(1), 83-95.
- Zucker, L.G. (1986). Production of trust: Institutional sources of economic structure, 1840-1920. *Research in Organizational Behavior*, 8, 53-111.

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Relationships between Talent Management and Organizational Performance: The Role of Climate for Creativity

Tomasz Ingram

ABSTRACT

Objective: The objective of this paper is to explore the role of climate for creativity in mediating relationships between talent management and organizational performance.

Research Design & Methods: A model relating talent management, organizational performance and climate for creativity was tested using structural equation modelling Based and data from 326 large organizations in Poland. It allowed the verification of two formulated hypotheses.

Findings: Research results reveal that talent management is a three-dimensional construct (dimensions are: strategic, structural and ideological) while climate for creativity and organizational performance are both unidimensional constructs. Results indicate that climate for creativity mediates the relationships between the dimensions of talent management and organizational performance.

Implications & Recommendations: Research findings suggest that in order to enable organizations to achieve high performance through talent management it should focus on creating an appropriate climate supporting individual creativity of its employees.

Contribution & Value Added: The originality of this work lies in studying unexplored relationships between talent management policies and organizational performance with the mediating role of climate for creativity. It is the first attempt to assess these relationships on the basis of empirical data in Poland.

Article type: research paper

Keywords: talent management; organizational performance; climate for creativity; empirical research; structural equation modelling

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INTRODUCTION

Talent management has received significant research attention over recent years (Boudreau & Ramstad, 2005; Dries, 2013a). Despite numerous contradictions embedded in the field researchers usually agree it is related to the way organizations capitalize on their most important assets –talented employees (Raman, Chadee, Roxas & Michailova, 2013). Numerous research studies focus on the relationships connecting talent management to organizational performance since this link justifies the significance of the issue for management scholars (Coulson-Thomas, 2012). Despite numerous calls for empirical studies (Boudreau, 2013) relationships between talent management and organizational performance still lack solid evidence. This lack of empirical studies related to links between talent management and organizational performance are partly explained by scarce theory about talent management (Dries, 2013a).

Using the dialectical perspective and strategic approach to talent management (Ingram, 2016a) this paper aims at exploring the relationship between talent management policies and organizational performance. As relationships between organizational variables rarely occur in isolation, climate for creativity was used as a contingent variable mediating the abovementioned relationships. Climate for creativity allows organizations to create valuable and novel organizational solutions supporting the innovativeness of a company (Hunter, Bedell & Mumford, 2007). The undertaken problem itself is strongly embedded in human resource management theory as well as entrepreneurship and innovation theory.

To explore the relationships empirical data gathered between October 2014 and January 2015 from 326 large companies located in Poland was used. The analysis was conducted using SPSS and MPLus software, and in particular confirmative factor analysis and structural equation modelling were employed.

In the first part of the paper I briefly review current trends in the field of talent management and outline the dialectical approach to these issues. Next, I conceptually relate talent management to organizational performance with the mediating role of climate for creativity. Further, the methodology presents the sample selection and research procedure as well as variables used in the research. In the following section research results are provided. The paper finishes with implications for theory and practice and conclude the paper with future research directions.

LITERATURE REVIEW

Talent Management as a Field of Research

Within recent years talent management has acquired much attention and has become important vein in the research on human resource management (Tansley, Kirk & Tietze, 2013). From poorly theorized phenomena it has converted into a recognized source of organizational performance and competitive advantage (Reilly, 2008). In the beginning, following calls from distinguished scholars, the research on talent management has mainly focused on the definition of talent (Tansley, 2011) and on the creation of a definition of the phenomenon (Iles, Chuai & Preece, 2010). Following the most prominent definition of talent management it is now conceptualized as “activities and processes

that involve the systematic identification of key positions which differentially contribute to the organization's sustainable competitive advantage" (Collings & Mellahi, 2009, p. 305) which is based on role definitions and the development of talent pools composed of high potentials and/or high performing employees who are responsible for filling these roles. It is also related to the development of human resource architecture that would facilitate filling pivotal positions and guarantee commitment of key employees to organizational aims.

Studies on talent management are mainly concentrated on its strategic aspects (Harris, Craig & Egan, 2010), however research located in the best practice perspective is also identifiable in the literature (Goldsmith & Carter, 2010). Much attention, both theoretical and empirical, has been put to understand and theorize relationships between talent management and organizational performance, however researchers have not come to sound, empirically confirmed conclusions in this area (Azmi, 2011). Al Ariss, Cascio and Paauwe (2014) suggest that talent management may be discussed on several different levels of analysis – i.e. individual, organizational, institutional as well as national, international and sectoral level.

There is also growing debate on the nature of talent in the literature. Gallardo-Gallardo, Dries and González-Cruz (2013) argue that there are multiple equipollent views on the essence of talent, namely as the characteristics of people, natural ability, mastery in a field, commitment, fit to context, as all employees (inclusive approach) and chosen employees, in particular: high performers and high potentials. Dries (2013b) convincingly claims that there are numerous contradictions embedded in talent and talent management research which constitutes the central argument for approaching talent management from the dialectical perspective presented in this paper.

Talent Management by The Lens of The Dialectical Perspective

Dialectical approach to organizational phenomena stems from the assumption that strategic problems within organizations are complex and simple solutions are hard to find. The world of organization is composed of opposing forces – contradictions, dilemmas, tensions, paradoxes (Bratnicki, 2001; Poole & Van de Ven, 1989). Managers are responsible for the identification of contradictions and their reconciliation that allow the development of an organization by capitalizing on positive aspects of each opposing force.

Adopting dialectical perspective to talent management (TM) signifies searching for contradictions in the field and attempting to find a reconciliation and obtaining a balance that crosses the trade-off line between two contradictory forces so neither dominates over the other. Moreover, managers are responsible not only to identify and make attempts to reconcile these forces, but also accept colliding events rivaling for domination and control (Van de Ven, 1992). It also requires adopting a strategic approach accepting that talent management is infused with paradoxes and ambiguity (Sundaramurthy & Levis, 2003). There are numerous contradictions embedded in talent management, namely: individual vs. teamwork, individual effectiveness vs. potential, universality of solutions vs. its specificity, cultural specificity vs. unified global solutions, open vs. closed recruitment, egalitarian vs. elitist approach, formal vs. informal definition, identification, recruitment, selection and evaluation of talents, creating TM by separate departments vs. project teams, focus on individual vs. organizational development, managerial vs. entrepreneurial orientation of a TM program (Ingram, 2016a; Ingram, 2016b).

The theory behind the dialectical perspective convinces that conscious reconciliation of strategic contradictions should lead to improved organizational performance (Bratnicki, 2001), thus, contradictions reconciliations in the field of talent management should also help to obtain satisfactory outcomes. This leads to the first hypothesis:

- H1:** There is a positive relationship between the ability to reconcile strategic contradictions in the field of talent management and organizational performance.

Relationships Between Talent Management and Organizational Performance in The Context

Relationships between organizational phenomena do not occur in isolation. There are numerous variables that may determine, mediate or moderate relationships between constructs in organizational studies. The link between talent management and organizational performance is not an exception in this regard. According to diverse studies there are numerous contextual or contingent variables that affect, determine or influence the nature of the above-mentioned relationship. Among variables influencing talent management are, *inter alia*, organizational structure (Mohrman & Lawler, 1997), firm's strategy (Sparrow, Scullion & Tarique, 2014), organizational climate (Rogg, Schmidt, Shull & Schmitt, 2001) or organizational environment variables (Garavan, 2012).

Introduction of talent management, its shape, construction and relationship with organizational performance seems to be strongly dependent upon the climate existing within a company. While talent management is usually realized with the purpose of helping to create sustainable competitive advantage (Ashton & Morton, 2005), and the latter is strongly related to the ability to deliver novel and valuable solutions (innovations) for diverse groups of customers (George, 2007), climate supporting creativity – that affects innovative capability (Yeh-Yun Lin & Liu, 2012) seems to play important role in the relationship between talent management and organizational performance. In particular, following by analogy arguments of (Rogg *et al.*, 2001) I assume that climate for creativity intervenes the relationship between talent management and organizational performance. Therefore, the following hypothesis may be formulated:

- H2:** The climate for creativity mediates the relationship between talent management and organizational performance.

MATERIAL AND METHODS

Sample and Procedures

The paper aims to test the relationship between talent management policies and organizational performance. On the basis of literature studies I formulated two research hypotheses, namely:

- H1:** There is a positive relationship between the ability to reconcile strategic contradictions in the field of talent management and organizational performance.
- H2:** The climate for creativity mediates the relationship between talent management and organizational performance.

Units of observation for this study were randomly selected large companies operating in Poland. Each company in the sample employed more than 250 full time employees

and the sample was cross sectional. Intended sample size was 500 large companies. In order to gather the empirical data, first two samples of 500 companies each were randomly selected from the database composed of 3217 large companies. In the second step companies from the first sample were contacted if they agree to participate in the research. If a company from the first sample refused to participate in the research the company from the second sample with the same identification number was contacted. In total, 332 companies agreed to participate in the research. Therefore, sample realization level equalled 66% (33% in respect to all randomly selected companies). To every company that agreed to participate in the research an interviewer was sent. Respondents in the research were human resource managers or managers responsible for talent management. The study was carried out in the end of 2014 and beginning of 2015 by the specialized market research company.

Variables

Talent management policies were assessed using self-created scale (Ingram, 2016a, in press). It is composed of 28 items, evaluated on a 7 point Likert scale, forming 14 strategic contradictions (Cronbach's $\alpha = 0.746$). The exploratory factor analysis revealed contradictions form three dimensions that were labelled strategic (Cronbach's $\alpha = 0.702$), structural (Cronbach's $\alpha = 0.823$), and ideological (Cronbach's $\alpha = 0.654$), one contradiction was dropped because of low loading level (below 0.4).

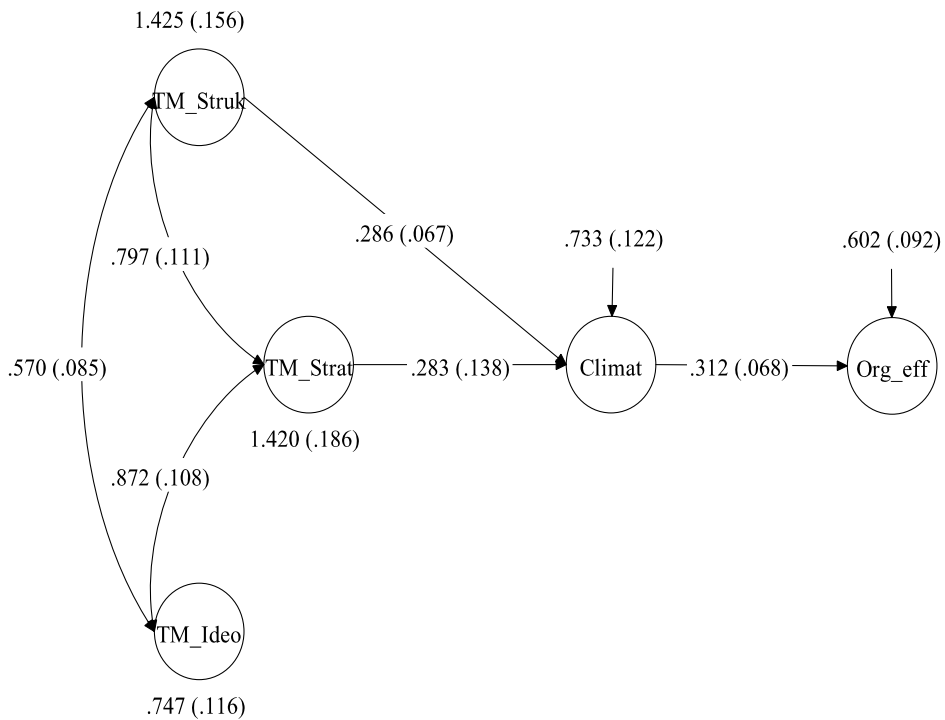
Organizational performance was measured with a modified 5-item scale elaborated by Antoncic and Hisrich (2001). The scale was used to measure subjective organizational performance in relation to competitors. Exploratory factor analysis shows it is a unidimensional construct (Cronbach's $\alpha = 0.887$). Climate for creativity was assessed using a previously prepared scale (Hunter *et al.*, 2007). It is composed of 7 items evaluated on a 7 point Likert scale. Exploratory factor analysis indicates it is a unidimensional construct with Cronbach's α equal to 0.848. All of the constructs are reflective which means constructs determine the level of observed variables rather than are determined by them. For exploratory factor analysis and Cronbach's α coefficients SPSS for Mac was used.

RESULTS AND DISCUSSION

In the first step of analysis confirmatory factor analysis was carried out for identified in EFA three dimensions of talent management. Root mean square error of approximation (RMSEA) as well as Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) were satisfactory accounting for 0.039, 0.957 and 0.967 respectively, which means the model is well fitted (see Ingram, 2016, in press).

In the next step relationships between talent management contradictions and organizational performance with the mediating role of climate for creativity was assessed using structural equation modelling in MPlus for Mac ver. 7.2 software. The model was well fitted (RMSEA = 0.049, TLI = 0.935, CFI = 0.943) indicating the relationship between talent management and organizational performance is moderately strong ($R^2 = 0.237$). That means that organizational performance changes are explained in nearly 24% by the independent variables. Model estimation results are presented in Figure 1.

Interpretation of Figure 1 leads to several observations. Firstly, all dimensions of talent management are interrelated. Secondly, relationships between structural and strategic dimensions of talent management and climate for creativity are significant. Also, relationship between climate for creativity and organizational performance is significant. Thirdly, none of talent management dimensions is significantly related to organizational performance. Thus, ability to reconcile strategic contradictions in talent management dimensions does not affect, by itself, organizational performance. Hence, hypothesis H1, stating there is a positive relationship between talent management policies and organizational performance does not receive support.



Legend: TM_Struk – structural dimension of talent management;
 TM_Strat – strategic dimension of talent management;
 TM_Ideo – ideological dimension of talent management;
 Climat – climate for creativity;
 Org_eff – organizational performance;
 Above lines model coefficients and standard errors are given;

Figure 1. Model of relationships between talent management dimensions, climate for creativity and organizational performance

Source: own calculations in MPlus for Mac 7.2.

Fourthly, ideological dimension of talent management is unrelated to climate for creativity as well as to organizational performance, hence, it does not influence neither of these variables. Analyses of mediation effects are presented in Table 1.

Results presented in Table 1 prove climate for creativity is an important mediator of the relationships between strategic and structural dimensions of talent management and organizational performance. Especially important are relationships between strategic and structural dimensions of talent management, climate for creativity and organizational performance while these are significant and prove there are links not to be missed in interpretation of changes in the organizational performance levels. Thus, it brings support to hypothesis H2 stating that climate for creativity is an important mediator of the relationship between talent management and organizational performance.

Table 1. Mediation analysis: Total, total indirect, specific indirect, and direct effects of talent management strategic, structural and ideological dimension on organizational effectiveness through the climate for creativity

Effect	Coefficient B	Confidence intervals – 95%	Is the relationship significant
Direct effect of strategic dimension	0.139	(-0.098; 0.377)	No
Direct effect of structural dimension	0.043	(-0.072; 0.158)	No
Direct effect of ideological dimension	-0.052	(-0.387; 0.282)	No
Total direct effect	0.130	–	–
Concrete indirect effect of strategic dimension by climate for creativity	0.088	(0.001; 0.176)	Yes
Concrete indirect effect of structural dimension by climate for creativity	0.089	(0.036; 0.142)	Yes
Concrete indirect effect of ideological dimension by climate for creativity	-0.009	(-0.129; 0.111)	No
Total effect	0.298	–	–

Dependent variable: organizational performance

Source: own calculations in MPlus for Mac ver. 7.2.

Research results bring support to existing discussion related to links between talent management and organizational performance. It supports claims that the organizational ability in managing talents influences organizational performance (Levenson, 2012). However, research results prove that this relationship does not occur in isolation and contextual variables are important in explaining talent management effect on organizational outcomes (Thunnissen, Boselie & Fruytier, 2013). According to the research results, organizational climate for creativity is essential for understanding why talent management influences organizational performance. While the level of explanation of the dependent variable is relatively low it would be worthwhile to include further variables into the model. They might be organizational structure, strategy, leadership style, human resource management practices and others that might help to explain relationships in more detail (Van den Brink, Fruytier & Thunnissen, 2013). Therefore, future research should focus rather on explaining the reasons of talent management capabilities influence on organizational performance than providing the evidence of the relationship itself. This study addressed the issue from the strategic point of view (talent management policies were the key point of reference), yet other approaches seem valuable for explaining the effect on organizational performance (Tarique & Schuler, 2010).

Research results bring also important implications for organizational practice. They suggest that if organizations are willing to unveil the effect of talent management on organizational performance, managers should focus on creating the climate supporting creativity. A simple creation of talent management program does not guarantee improved organizational position in relation to competition. It is necessary to focus more strongly on creating conditions allowing for employment of the potential of talented employees. Managers should especially concentrate on conscious shaping of strategic and structural aspects of talent management programs, namely aspects of talent identification, recruitment and selection as well as evaluation procedures and processes. Managers should also focus on reconciling contradictions in the field of individual vs. team-working, paying attention to both the effectiveness of candidates and their potential, balance universality and specificity of the program, focus on development of individual and organization and search for equilibrium between managerial and entrepreneurial aspects of talent management programs.

CONCLUSIONS

Talent management, as an emerging field of interest in the organizational theory, still lacks answers to basic questions – about definitions, scope, relationships to organizational performance and contextual variables (Dries, 2013a). This study proves there is a relationship between talent management, in particular, the ability to reconcile strategic contradictions in TM dimensions, and organizational performance. Climate for creativity comprises of a mechanism that helps to unveil stated relationship. Therefore, it is necessary to create proper conditions for talent management that enable its influence on other organizational outcomes. Certainly, further studies on the issue and relationships between talent management and other organizational variables are necessary, especially important are studies helping to explain how and in what conditions talent management policies might be profitable for an organization. Therefore, both exploratory and explanatory studies are necessary to deepen the knowledge on talent management in organizations. Benefits of such studies are hard to overestimate, while the link between talent management and organizational well being are both theoretically (Ashton & Morton, 2005) and empirically evident.

The study brings also implications for the organizational practice. As the study proves, talent management can be conceptually and empirically linked to organizational performance helping to boost it. However, in order to facilitate improvement of organizational performance managers should focus on accepting contradictions embedded in talent management and focus on processes of their reconciliation. Secondly, talent management by itself does not explain organizational performance fully. In order to capitalize on abilities to reconcile TM contradictions managers should focus on creating the climate for creativity. According to the research results this climate serves as a trigger and creates conditions for transferring TM reconciliation abilities into organizational performance.

The paper has four main limitations. Firstly, the study was carried out in Poland, and that hinders the possibility to generalize research results. Secondly, due to space limitations, in the paper robustness of employed research procedure was not checked. Namely, there are strong premises to state that the relationship between talent management

and organizational performance might, in fact, be of the different direction. The basic question here is if the ability to reconcile strategic contradictions in the TM field is not actually higher in high performing organizations. Thus, further analyses in this regard seem to be of a great importance. Thirdly, while organizational performance depends on numerous factors, it would be useful to include more contextual variables in the research procedure. This would help to explain variability of the organizational performance to a higher extent. Fourthly, although it is suggested to use strong data in SEM, and used scales are ordinal, researchers in the management field, also in the most prestigious journals, commonly use Likert-type scales in similar analyses (Rodell & Lynch, 2016). Being aware it might cause erroneous results and interpretations, the research design followed a commonly accepted practice in this regard.

REFERENCES

- Al Ariss, A., Cascio, W.F., & Paauwe, J. (2014). Talent management: Current theories and future research directions. *Journal of World Business*, 49(2), 173–179.
- Ashton, C., & Morton, L. (2005). Managing talent for competitive advantage: Taking a systemic approach to talent management. *Strategic HR Review*, 4(5), 28–31.
- Azmi, F.T. (2011). Strategic human resource management and its linkage with HRM effectiveness and organizational performance: evidence from India. *International Journal of Human Resource Management*, 22(18), 3888–3912. <http://doi.org/10.1080/09585192.2011.561245>
- Boudreau, J.W. (2013). Appreciating and “retooling” diversity in talent management conceptual models: A commentary on “The psychology of talent management: A review and research agenda.” *Human Resource Management Review*, 23(4), 286–289.
- Boudreau, J.W., & Ramstad, P.M. (2005). *Talentship and the evolution of human resource management: from professional practices to strategic talent decision science*. University of Southern California, Center for Effective Organizations Working Paper. Retrieved on January 10, 2016 from <http://www-marshall.usc.edu/assets/047/9842.pdf>
- Bratnicki, M. (2001). *Dylematy i pułapki współczesnego zarządzania*. Katowice: Gnome.
- Collings, D.G., & Mellahi, K. (2009). Strategic Talent Management: A review and research agenda. *Human Resource Management Review*, 19, 304–313.
- Coulson-Thomas, C. (2012). Talent management and building high performance organisations. *Industrial and Commercial Training*, 44(7), 429–436. doi: 10.1016/j.ictr.2009.04.001
- Dries, N. (2013a). Talent management, from phenomenon to theory: Introduction to the Special Issue. *Human Resource Management Review*, 23(4), 267–271.
- Dries, N. (2013b). The psychology of talent management: A review and research agenda. *Human Resource Management Review*, 23(4), 272–285. <http://doi.org/10.1016/j.hrmr.2013.05.001>
- Gallardo-Gallardo, E., Dries, N., & González-Cruz, T.F. (2013). What is the meaning of “talent” in the world of work? *Human Resource Management Review*, 23(4), 290–300.
- Garavan, T.N. (2012). Global talent management in science-based firms: an exploratory investigation of the pharmaceutical industry during the global downturn. *International Journal of Human Resource Management*, 23(12), 2428–2449.
- George, J.M. (2007). Creativity in Organizations. *The Academy of Management Annals*, 1(1), 439–477.
- Goldsmith, M., & Carter, L. (2010). *Best practices in talent management: how the world's leading corporations manage, develop, and retain top talent*. San Francisco: Pfeiffer; Best Practice In-

stitute.

- Harris, J., Craig, E., & Egan, H. (2010). How successful organizations strategically manage their analytic talent. *Strategy & Leadership*, 38(3), 15–22.
- Hunter, S.T., Bedell, K.E., & Mumford, M.D. (2007). Climate for creativity: A quantitative review. *Creativity Research Journal*, 19(1), 69–90.
- Iles, P., Chuai, X., & Preece, D. (2010). Talent management and HRM in multinational companies in Beijing: Definitions, differences and drivers. *Journal of World Business*, 45(2), 179–189. <http://doi.org/10.1016/j.jwb.2009.09.014>
- Ingram, T. (2016a). *Towards the dialectical approach to organizational talent management: Empirical research results*. Paper presented at Australia and New Zealand International Business Academy Conference, Sydney.
- Ingram, T. (2016b). *Zarządzanie talentami i pracownikami w dojrzałym wieku w kontekście wpływu na wyniki przedsiębiorstwa*. Katowice: Wydawnictwo Uniwersytetu Ekonomicznego w Katowicach.
- Levenson, A. (2012). Talent management: challenges of building cross-functional capability in high-performance work systems environments. *Asia Pacific Journal of Human Resources*, 50(2), 187–204. <http://doi.org/10.1111/j.1744-7941.2011.00022.x>
- Mohrman, S.A., & Lawler, E.E. (1997). Transforming the human resource function: Introduction. *Human Resource Management (1986-1998)*, 36(1), 157.
- Poole, M.S., & Van de Ven, A.H. (1989). Using paradox to build management and organization theories. *Academy of Management Review*, 14, 562–578.
- Raman, R., Chadee, D., Roxas, B., & Michailova, S. (2013). Effects of partnership quality, talent management, and global mindset on performance of offshore IT service providers in India. *Journal of International Management*, 19(4), 333–346.
- Reilly, P. (2008). Identifying the right course for talent management. *Public Personnel Management*, 37(4), 381–388.
- Rodell, J.B., & Lynch, J.W. (2016). Perceptions of employee volunteering: Is it “credited” or “stigmatized” by colleagues? *Academy of Management Journal*, 59(2), 611–635.
- Rogg, K.L., Schmidt, D.B., Shull, C., & Schmitt, N. (2001). Human resource practices, organizational climate, and customer satisfaction. *Journal of Management*, 27(4), 431–449.
- Sparrow, P., Scullion, H., & Tarique, I. (Eds.). (2014). *Strategic talent management: Contemporary issues in international context*. Cambridge: Cambridge University Press. Retrieved on January 10, 2016 from <http://ebooks.cambridge.org/ref/id/CBO9781139424585>
- Sundaramurthy, C., & Levis, M. (2003). Control and collaboration: Paradoxes of governance. *Academy of Management Review*, 28, 397–415.
- Tansley, C. (2011). What do we mean by the term “talent” in talent management? *Industrial and Commercial Training*, 43(5), 266–274.
- Tansley, C., Kirk, S., & Tietze, S. (2013). The currency of talent management—A reply to “talent management and the relevance of context: Towards a pluralistic approach.” *Human Resource Management Review*, 23(4), 337–340. <http://doi.org/10.1016/j.hrmr.2013.08.004>
- Tarique, I., & Schuler, R.S. (2010). Global talent management: Literature review, integrative framework, and suggestions for further research. *Journal of World Business*, 45(2), 122–133. <http://doi.org/10.1016/j.jwb.2009.09.019>
- Thunnissen, M., Boselie, P., & Fruytier, B. (2013). Talent management and the relevance of context: Towards a pluralistic approach. *Human Resource Management Review*, 23(4), 326–336. <http://doi.org/10.1016/j.hrmr.2013.05.004>

- Van de Ven, A.H. (1992). Suggestions for studying strategy process: A research note. *Strategic Management Journal*, 13, 169-188.
- Van den Brink, M., Fruytier, B., & Thunnissen, M. (2013). Talent management in academia: performance systems and HRM policies: Performance systems and HRM policies. *Human Resource Management Journal*, 23(2), 180–195. <http://doi.org/10.1111/j.1748-8583.2012.00196.x>
- Yeh-Yun Lin, C., & Liu, F. (2012). A cross-level analysis of organizational creativity climate and perceived innovation: The mediating effect of work motivation. *European Journal of Innovation Management*, 15(1), 55–76. <http://doi.org/10.1108/14601061211192834>

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