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Entrepreneurial Orientation, Growth and Development of SMEs. Empirical Results from Poland and the Czech Republic

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Abstract

Based on individual-level data from a cross-sectional sample of small and medium enterprises located in Poland and the Czech Republic we performed an analysis of the impact of entrepreneurial orientation on SMEs' growth and development. The hypotheses outlined in the study were tested by using structural equation modeling. The study results revealed that overall there was a strong measure of agreement among SMEs from Poland and the Czech Republic. SMEs in Poland and the Czech Republic have a similar approach to pro-activeness, innovativeness and risk-taking. However, Polish firms are less likely to act aggressively. The results of the structural equation modeling indicate entrepreneurial orientation affects SME growth and development. In general, when enterprises seek to innovate and to outpace competitors they are rewarded for their efforts.

Keywords: small and medium-sized enterprises, entrepreneurial orientation, growth, development, structural equation modeling

JEL: D22, L25, L26

Introduction

In this paper, the relevance of an entrepreneurial orientation has been empirically investigated. Entrepreneurial orientation is defined as a multidimensional construct, which includes one or several of these five dimensions: pro-activeness, innovativeness, risk-taking, competitive aggressiveness and autonomy (Gębczyńska 2017, 155; Kwiotkowska 2017, 259; Lumpkin, Cogliser, and Schneider 2009, 48; Moreno and Casillas 2008, 508). The concept of entrepreneurial orientation is considered to be universal. It should be noted that our ability to generalize, however, is limited because cross-cultural research is limited. In order to fill the gaps in previous research, a cross-cultural comparison was done using samples from two economies: Poland and the Czech Republic (both economies with a short entrepreneurship tradition).

The Czech Republic is similar to Poland in both location and many aspects of history. Upon the end of World War II in 1945, both countries fell under the Soviet sphere of influence and functioned under communist governments. The 1990s saw far-reaching systemic changes both in Poland and Czechoslovakia (and following the split of the latter into the Czech Republic and Slovakia). Both countries returned to democratic rule and introduced a market economy. Privatization of enterprises was the fundamental part of the economic reforms program implemented in both

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countries. Restructuring actions influenced the change in the way enterprises functioned in the market. At present, small and medium-sized enterprises play an increasingly important role in the economic growth of Poland and the Czech Republic. Both countries acceded to the EU in 2004 but have yet to join the euro-zone.

The aim of this work is to create a model which would explain, in a complex way, the causal links between entrepreneurial orientation, and growth and development of small and medium-sized enterprises (SMEs). The research seeks to identify any dimensions of entrepreneurial orientation that might be used to enable SMEs to achieve higher levels of growth and development. In order to achieve aim this research sought to:

- identify the dimensions of entrepreneurial orientation,
- assess whether and how these differ between businesses in Poland and the Czech Republic, and
- assess why and how entrepreneurial orientation affects SME growth and development.

1 The entrepreneurial orientation — performance relationship

The concept of entrepreneurial orientation was introduced by Miller (1983) as comprising three dimensions: innovativeness, risk taking and proactiveness. Entrepreneurial orientation is concerned with the striving for implementing innovative solutions (the novelties in products, services, markets, technologies, methods, supply sources, and organizational arrangements), ability to take risk and also being more pro-active than competitors (Covin and Slevin 1989, 76). Innovation is a critical source of growth (Adamska 2011, 124–125; Jasińska-Biliczak, Kowal, and Hafner 2016, 2–3; Malik and Jasinska-Biliczak 2018, 2; Zygmunt and Szewczyk 2014, 81; Zygmunt 2015, 120). More recent definitions have expanded on two more dimensions: autonomy and competitive aggressiveness (Lumpkin and Dess 1996, 136). Autonomy emphasizes "the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion" (Lumpkin and Dess 1996, 140). Finally, competitive aggressiveness refers to "a firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace." (Lumpkin and Dess 1996, 148).

The performance of a firm is a relevant construct. There is hardly any consensus about its definition and measurement. The study by Selvam et al. (2016, 93) examines nine dimensions of performance, namely, profitability performance, growth performance, market value performance of the firm, customer satisfaction, employee satisfaction, environmental audit performance, corporate governance performance and social performance. Measurement of growth can be done in many ways, including sales, assets or employment (Davidsson, Achtenhagen, and Naldi 2006, 86; Davidsson et al. 2002, 12; Shepherd and Wiklund 2009, 107–109; Weinzimmer, Nystrom, and Freeman 1998, 235–236).

Most of the extant literature highlights a positive linear relationship between entrepreneurial orientation and both financial performance, and non-financial performance (such as satisfaction or global success ratings) (Bartnicki and Kulikowska-Pawlak 2011, 33; Jasińska-Biliczak 2014, 58–61; Rauch et al. 2009, 770; Wójcik-Karpacz 2016, 489–490; 2017, 90–92). This relationship was also confirmed in the case of small and medium-sized enterprises (Avlonitis and Salavou 2007, 573; Keh, Nguyen, and Ng 2007, 609). Other studies indicate that the relationship between EO and firm performance is curvilinear (Tang et al. 2008, 233).

Our literature review revealed the existence of factors affecting the relationship between entrepreneurial orientation and performance (mediator variables and moderator variables) (Wójcik-Karpacz 2017, 92). These included environmental and internal organizational factors. Environmental factors include environmental dynamism, complexity, and industry characteristics (Lumpkin and Dess 2001, 430). Internal factors include firm size, structure, strategy, strategy-making processes, firm resources, and top management team characteristics (Lumpkin and Dess 1996, 154). The context in which the firms operate plays an important role (Rauch et al. 2009, 766; Wójcik-Karpacz 2017, 86). In the study by Kraus et al. (2012), proactive firm behavior positively contributes to SME performance during an economic crisis. The results show that innovative SMEs do perform better in turbulent environments, but those innovative SMEs should minimize the level of risk. The findings of Lumpkin

and Dess suggest that proactiveness is appropriate for firms in dynamic environments or in growth stage industries (Jasińska-Biliczak 2015, 78; Lumpkin and Dess 2001, 446). On the other hand, competitive aggressiveness is appropriate for firms in hostile environments, or in mature industries.

2 Methodology

The analysis was based on the unit data obtained from enterprises based on the territories of Poland (383 enterprises) and the Czech Republic (381 enterprises). The survey collected information on determinants of SME growth and development. Stratified random sampling was used. The survey covered companies employing from 10 to 249 people. The population of this study was stratified into two categories: small (10–49 employees) and medium (50–249 employees). The survey was conducted in March 2017 with the use of Computer-Assisted Web Interviewing.

The essence of structural equations modeling consists in reflecting interdependences between directly unobservable hidden variables through application, for this purpose, of observable measurement indicators. Each of the hidden variables (entrepreneurial orientation, growth, development) is measured with an ordered set of empirical variables (indicators). Respondents were asked to express their level of agreement or disagreement. The variables serving as indicators in the estimation model were measured on a 7-point grading scale ranging from 1 (strongly disagree) to 7 (strongly agree). A complete list of variables and their measures is provided in tables 1–3. Six items are used to measure entrepreneurial orientation, four items to measure growth and three items to measure development.

To capture growth of companies, this study used: rise in the number of customers, rise in the number of employees, rise in the companies' revenues, rise in the company's value. The development of enterprises was operationalized by three indicators: perfecting the management system, perfecting the market offer, development of cooperation with other subjects in the market. It can be seen from publications by the Polish Central Statistical Office (*Działalność innowacyjna...* 2017) that Polish firms clearly prefer goals which may be described as being directly connected to financial

Tab. 1. Entrepreneurial orientation. Description of the meaning of the indicators (i.e., the wording of the questions in the questionnaire) used in the model

X_1	Generally, our sales managers put a strong emphasis on the sale of tried and tested products/services.
X_2	In the last 5 years my firm has introduced many new production lines and services in the market.
X_3	Our attitude to the market consists in reacting to actions initiated by competitors.
X_4	Our attitude to competition is characterized by our being active and aggressive.
X_5	Generally, our sales representatives believe that daring, wide-ranging actions are indispensable to reach the firm's targets.
X_6	When we take sales-related decisions in the situation of uncertainty, our approach is careful and we wait to see how the situation will develop.

Tab. 2. Growth of a firm. Description of the meaning of the indicators (i.e., the wording of the questions in the questionnaire) used in the model

X_7	In the last three years there has been an increase in the number of customers.
X_8	In the last three years there has been an increase in the number of workers.
X_9	In the last three years the company has increased its revenues.
X_{10}	In the last three years there has been an increase in the value of the company.

Tab. 3. Development of a firm. Description of the meaning of the indicators (i.e., the wording of the questions in the questionnaire) used in the model

Y_1	In the last three years the company has improved its system of management.
Y_2	In the last three years the company has perfected its market offer.
Y_3	In the last three years the development of partner cooperation with other firms in the market has been observed.

performance (increasing sales and, in second place, lowering costs). It indicates that the path from entrepreneurial orientation to business development goes through a firm's growth.

On the basis of the above, one may formulate the following hypotheses:

- H1: Entrepreneurial orientation has a significant, positive influence on the development of a firm via the growth of a firm.
- H2: Entrepreneurial orientation has a significant, positive and direct influence on the development of a firm.

In order to test the hypotheses, structural equation modelling was adopted. The choice of whether to accept or reject a model is based on the goodness-of-fit indexes (RMSEA, GFI, AGFI).

3 Results

Using two samples, proportions are compared to determine if a difference exists. Respondents in Poland and the Czech Republic are likely to have responded similarly to the survey questions (tab. 4 and 5). 80% of respondents agree with the statement, "Generally, our sales managers put a strong emphasis on the sale of tried and tested products/services." Polish and Czech enterprises are equally likely to engage in implementing innovative solutions. Approximately 70% agree with the statement "In the last 5 years my firm has introduced many new production lines and services in the market." Roughly 50% agree with the statement "Our attitude to the market consists in reacting to actions initiated by competitors." Similarly, roughly 50% agree with the statement "When we take sales-related decisions in the situation of uncertainty, our approach is careful, and we wait to see how the situation will develop."

However, Polish enterprises are less likely to be aggressive. Only 24,8% of Polish enterprises say they are "active and aggressive," versus 32,8% of Czech enterprises who say the same (the difference between two proportions is statistically significant, $p < 0{,}05$).[1] "Wide-ranging actions" showed the greatest difference (18,1 percentage points). Only 56,7% of Polish enterprises say that "wide-ranging actions are indispensable to reach the firm's targets," compared to 74,8% of Czech enterprises (the difference between two proportions is statistically significant, $p < 0{,}01$).

Tab. 4. Distribution of answers for the items of entrepreneurial orientation, Poland (in %)

	X_1	X_2	X_3	X_4	X_5	X_6
Strongly disagree	3,9	1,8	4,2	5,0	3,1	3,1
Disagree	3,4	14,4	12,3	24,8	7,3	10,2
Somewhat disagree	5,0	12,0	21,1	31,9	14,1	17,2
Neither agree nor disagree	6,8	6,0	7,6	13,6	18,8	15,1
Somewhat agree	21,9	19,6	22,2	11,7	22,7	27,4
Agree	42,6	37,9	28,2	10,2	28,5	24,0
Strongly agree	16,4	8,4	4,4	2,9	5,5	2,9

Tab. 5. Distribution of answers for the items of entrepreneurial orientation, the Czech Republic (in %)

	X_1	X_2	X_3	X_4	X_5	X_6
Strongly disagree	0,8	2,1	1,3	5,0	0,5	2,4
Disagree	3,1	15,2	8,9	24,9	3,1	13,6
Somewhat disagree	5,5	8,7	16,0	26,8	6,3	19,2
Neither agree nor disagree	10,2	6,3	17,1	10,5	15,2	11,5
Somewhat agree	20,2	21,3	25,7	21,0	26,0	34,4
Agree	43,8	36,5	25,5	11,3	36,2	16,5
Strongly agree	16,3	10,0	5,5	0,5	12,6	2,4

1. [In the journal European practice of number notation is followed—for example, 36 333,33 (European style) = 36 333.33 (Canadian style) = 36,333.33 (US and British style).—Ed.]

The research model was tested by using a structural equation modeling approach. We decided to consider alternative models by eliminating chosen paths which were statistically not significant. The goodness-of-fit statistics indicate an acceptable overall level of fit (tab. 6 and 7).

An item having high factor loading (more than 0,6) means that this particular item is deemed important to measure that particular construct. This means that innovativeness of enterprises (X_2), aggressive behavior (X_4) and risk-taking (X_5) have the greatest impact (these three variables are statistically significant in both studied countries). In the case of Czech enterprises "sale of tried and tested products/services" (X_1), "waiting for competitors' moves" (X_3) and "carefulness" (X_6) are still significant, but they are far less important than innovativeness, risk-taking and competitive aggressiveness (any item having a factor loading less than 0,60).

Entrepreneurial orientation of a firm influences its growth (for Poland $\beta = 0{,}46$; for the Czech Republic $\beta = 0{,}72$; $p < 0{,}05$). The results also confirm a positive influence of entrepreneurial orientation on the development of a firm (for Poland $\beta = 0{,}52$; for the Czech Republic $\beta = 0{,}24$; $p < 0{,}05$), but the value of the coefficient for the Czech Republic is small ($\beta = 0{,}24$), indicating a weak positive influence. The significance of the path "Entrepreneurial orientation → Growth → Development of a firm," should be interpreted as follows: the route from entrepreneurial orientation to development passes through the growth of a firm. Hence, hypotheses H1 and H2 are confirmed.

Tab. 6. Estimates of the parameters in the model

Path	Poland	Czech Republic
Entrepreneurial orientation → X_1	not significant	0,47
Entrepreneurial orientation → X_2	1,00	0,86
Entrepreneurial orientation → X_3	not significant	0,45
Entrepreneurial orientation → X_4	0,85	0,77
Entrepreneurial orientation → X_5	0,82	0,71
Entrepreneurial orientation → X_6	not significant	0,21

Tab. 7. Estimates of path weight in the structural model

Hypothesis	Path	Model 1 (Poland)	Model 2 (Czech Republic)	Result
H1a	Entrepreneurial orientation → Growth	0,46	0,72	Supported
H1b	Growth → Development	0,44	0,45	Supported
H2	Entrepreneurial orientation → Development	0,52	0,24	Supported
	RMSEA	0,09	0,11	
	GFI	0,90	0,87	
	AGFI	0,86	0,81	

Conclusions

We hope that exploring the multidimensional nature of entrepreneurial orientation will contribute to the greater understanding of entrepreneurial orientation and its relationship towards company growth and development of SMEs. Consistent with previous research, exploring direct and indirect relationships between variables, we find that entrepreneurial orientation affects small and medium enterprises' growth and development. Moreover, innovativeness, aggressive behavior and risk-taking may benefit SMEs in economies like Poland and the Czech Republic. In the case of Czech enterprises additionally the sale of tried and tested products/services, waiting for competitors' moves and carefulness are the variables that affect growth and development as well. It suggests that some traditional competitive behaviors are important in this country. Czech firms seem to be a little more traditional than Polish firms. It may not be a contradiction to be innovative and traditional at the same time—tradition and innovation can create an interesting if not obvious competitive advantage. Some well-known market brands show that respect for tradition mixed with technological progress can create success.

This study, as all studies, has limitations. This survey was conducted on small and medium enterprises (firms employing up to 9 people were excluded from the research). Findings might not be transferable to all types of enterprises. In general, the estimates of the fit indices were very close to the cutoff values. In order to get acceptable model fit indices one should build complex models with other determinants of business growth and development.

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