RESEARCH PAPERS

THE COMPETENCIES OF MANAGERS AND THEIR BUSINESS SUCCESS

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The article aims to explain how general and specific managerial competencies relate to the business success of small and medium size enterprises (SMEs). This study was conducted among 264 managers of SMEs. SME success was measured as a subjective assessment of economic growth indicators in comparison with competitors on the market. General and specific managerial competencies were significant predictors of success in running a business. Specific managerial competencies proved to be a mediator between general competencies and SME success. This paper helps provide a better understanding of how individual differences – general and specific managerial competencies – influence entrepreneurial behavior and its outcomes.

JEL classification: M12; L26

Introduction

Increasing competition forces companies to employ competent managers. However, the relationship between managerial competences and business success still remains an important issue within organizational literature (e.g. Crook et al., 2011; Mitchelmore and Rowley, 2010). Yet, the current literature on the subject does not provide sufficient explanation of the role of managerial competencies in the success of small and medium size enterprises (SMEs). The research presented here aims to determine how general and specific managerial competencies relate to the business success of SMEs. Most of the competencies have been studied in isolation and with little effort to recognize mutual relationships (Markman, 2007; Mitchelmore and Rowley, 2010). The present study attempts to explain how general and more specific managerial competencies affect SME success measured as a subjective assessment of economic growth indicators in comparison with the competitors on the market.

The activity of SMEs is a source of new jobs and an important factor in a free-market economy; it has a significant impact on economic development and immense influence on the market (Bosma et al., 2008; Lukes and Laguna, 2010). However, European countries are not making full use of their entrepreneurial potential (Bosma et al., 2008). Therefore, stimulating entrepreneurial activity through the development of required competences and creating appropriate conditions for the growth of SMEs is a key factor for the sustainable growth of a market economy. The significant influence of SMEs has resulted in a growing interest in the factors stimulating entrepreneurial activity and SME success (cf. Baron, 2007; Laguna, 2013; Moriano et al., 2012; Summers, 2000).

Business success is a multidimensional phenomenon. It includes multiple criteria of a financial and non-financial character (Crook et al., 2011; Dej, 2010; Gorgievski et al., 2011; Orser and Dyke, 2009). Therefore it can be assessed using multiple success indicators of an organizational and psychological character. Within the economic approach to entrepreneurship, assessment of success is based mainly on organizational performance indicators such as company survival, profits, employee and sales growth, market share or return on investment (Baron, 2007; Chandler and Hanks, 1993). Data concerning these success indicators may be gathered from objective accounting and financial market information (Richard et al., 2009). However, their actual

availability in entrepreneurial settings is limited. Because most of them are not public, they are rarely available for researchers. In addition, entrepreneurs avoid revealing financial data and often manipulate them for taxes reasons (cf. Dej, 2010). A psychological approach to business success points to the importance of entrepreneurs' personal motivation, goals and aspirations (Dej, 2010; Gorgievski et al., 2011). It is based on the assumption that the achievement of valued outcomes (e.g. personal initiative, autonomy, independence or work-enjoyment) is the source of success. The following are emphasized: intangible success criteria, satisfaction with the realization of subjective goals and their subjective assessment (Kuratko et al., 1997; Orser and Dyke, 2009). However, this assessment may be inaccurate due to a dispositional tendency to be optimistic and satisfied with life (Brookings and Serratelli, 2006).

A third way between objective information on organizational performance indicators and subjective assessment of the realization of important goals may be found by applying a subjective assessment of economic parameters. The researcher may ask managers to evaluate their company's performance, e.g. its financial situation, growth, profits, or ask them to compare it with the situation of their rivals on the market (Richard et al., 2009). Also, such evaluations of business performance are not free of error; a comparison made with market competitors makes subjective evaluation more reliable. Subjective satisfaction with company success in comparison to market competitors may be treated as a good indicator of entrepreneurial success.

According to Boyatzis (1982), managerial competencies characterize a person who manages a company or a team of workers. These contribute to successful fulfillment of a task. Therefore managerial competencies are understood here as observable characteristics such as knowledge, skills or behavior patterns that contribute to the successful fulfillment of managerial tasks (Markman, 2007; Mitchelmore and Rowley, 2010; Talik et al., 2012; van Beirendonck, 2004). Over four hundred different competencies can be found in the literature; there are also many proposals as to their grouping (cf. Armstrong, 2007; Mitchelmore and Rowley, 2010). One proposition considers two major groups: general and specific competencies (e.g. Armstrong, 2007; Wright and McMahan, 2011). General competencies refer to broader personality characteristics, skills, patterns of behavior and values that are essential for every managerial position, and important also in many other professions. For example, both a creative approach to solving problems and social skills are useful in many different situations. They enable people to adapt to the new situations and circumstances in a flexible way (McClelland, 1973). The specific managerial competencies refer to skills and knowledge of basic principles in the area of SME management. They refer to specific aspects of management such as finance, advertising or logistics. However, competencies such as human capital characteristics can be arranged along a general to specific dimension, and are hardly ever being purely general or purely specific (Wright and McMahan, 2011).

A meta-analysis published by Ng and colleagues (2005) suggests that individual competencies and value to the firm are essential for predicting career success and should be included into the theoretical models explaining this success. However, the role of competencies in SME activity and business success are yet to be investigated. The latest literature reviews suggest that further research is needed to uncover and fully explain these relationships (Crook et al., 2011; Markman, 2007; Mitchelmore and Rowley, 2010). Various studies claim that certain managerial competencies are essential factors in the success and growth of the firm (for a research overview, see Mitchelmore and Rowley, 2010). According to the resource-based theory, the resources or competencies of a firm which make it different from others are important for its market success (Hussain et al., 2006). Human capital – e.g. competencies – is treated as a key factor explaining why some firms outperform others. Consequently, entrepreneurial competencies shall be considered as an important predictor of business success (Markman, 2007; Mitchelmore and Rowley, 2010). Thus we hypothesize that:

> H1: Higher levels of general and specific managerial competencies are positively related to SME success.

Most of the competencies have been studied in isolation and with little effort to recognize mutual relationships. There is still a need to explain the relation between broader groups of competencies, and their relations with business success should be tested (Markman, 2007; Mitchelmore and Rowley, 2010). This may help us to understand how individual differences influence behavior and its outcomes. According to Rauch and Frese's (2007a, 2007b) model of business success predictors, we can distinguish distal and proximal variables. In their model, more general personality traits affect specific managerial traits and goal-setting processes and this way indirectly influence business success. Consequently, we can expect that general managerial competencies affect SME success indirectly via more specific managerial competencies. Thus we hypothesize that:

> H2: The effect of general competencies on SME success is mediated by specific managerial competencies.

Methods

The research sample consists of 264 SME managers (66 woman; 25%) from five European countries: managers

from Belgium (17; 6.4%), Poland (74; 28%), Portugal (62; 23.5%), Slovenia (54; 20.5%), and Spain (57; 21.6%). The sample reflects the structure of the SME managers' population of each country, according to the socio-demographic variables being controlled.[1] The age of the participants ranged between 18 and 64 (M = 42.38; SD = 10.1). On average, they had worked as managers for 11.53 years (SD = 8.70) and managed small (187; 70.8%) or medium sized companies (77; 29.2%). More than half of the managers (54.5 percent) have run the companies for over 3.5 years. Most of the managers were also firm owners 187 (70.8%), and 77 (29.2%) were CEOs.

The managers were contacted personally or by e-mail and asked to fill out the electronic version of the measures available on the web site. Participation in the study was voluntary. All measures were completed anonymously to ensure confidentiality.

For measuring *managerial competencies*, M-Astra method was used (Laguna et al., 2011). It consists of 73 statements and evaluates the level of two types of managerial competencies: general (40 statements) and specific managerial competencies (33 statements).[2] The respondents gave answers to each statement using a 101-point scale, from 0 – *strongly disagree* to 100 – *strongly agree*. Scores ranged from 0 to 100 points, with higher scores representing a higher level of competencies. Cronbach's *alpha* coefficients for these scales are .97 (general competencies) and .94 (specific competencies), confirmimg their high internal consistency. The M-Astra method is available in six language versions and is prepared to be used electronically.

Success in business was measured using the Questionnaire of Entrepreneurial Success (Wiklund and Shepard, 2005). The scale items refer to the assessment of one's own firm's growth evaluation during the last three years, in comparison with two major competitors. The respondents assess their companies' success according to 10 criteria, for example sales growth, revenue growth, and use of new technologies. The answers are given on a five-point scale (*much worse, worse, average, better, much better*). The Cronbach's *alpha* coefficient for the scale in this study was .87.

The controlled *socio-demographic characteristics* of the managers were gender, age and managerial experience, expressed as the number of years running a business. Also *firms' characteristics* were assessed: the branch in which the firm operates, be it the service industry or trade and production, and the size of the firm, distinguishing between small companies that employ from 10 to 50 staff and medium-sized companies that employ from 50 to 250 employees. How long the business has been operating (time of running the business) was also assessed – whether it has operated less than 3.5 years (young businesses or early-stage entrepreneurial activities) or longer than 3.5 years (established businesses) (cf. Bosma et al., 2008).

Results

Descriptive statistics for the study variables are presented in Table 1. Success in business is moderately but significantly correlated with the general and specific managerial competencies of SME managers. There were no significant interplays between these three studied variables and other controlled variables.[3]

1 To make sure that the sample was similar to the population of SME managers in each country the expected distributions of variables: the sex of a manager, the size (small, medium sized companies) and branch of a company (service and trade, production) were elaborated. It was done on the basis of the available statistical data which reflects the structure of management in each country (e.g. Global Entrepreneurship Monitor). The expected distribution of these socio-demographic variables and the distribution obtained as a result of the study do not differ significantly in Slovenia (χ^2 (7) = 3.27; p = .86), Spain (χ^2 (7) = 3.2141; p = .7876), Poland (χ^2 (7) = 3.49; p = .84), Portugal (χ^2 (7) = 9.29; p = .23), and Slovenia (χ^2 (7) = 3.26; p = .86). The sample from Belgium was compared to the expected distribution made only on the basis of the available data on sex and the type of business and no statistically significant differences were observed between those distributions (χ^2 (3) = 3.39; p = .34).

2 The global score of general competencies is an average result of particular scales such as: Innovativeness, Planning, Cooperation, Leadership, Decision making, Self-confidence, Persistence, Problem solving. Whereas the total score of specific competencies is composed of: Knowledge of employee evaluation and motivation, Knowledge of recruitment and human resource development, Knowledge of advertising and marketing, Knowledge of market, Knowledge of production and logistics, Knowledge of finances, Knowledge of legislation and regulations. The electronic version of the tool is available at: http://www.oic.lublin.pl/competencelevel/results_en.html

3 Supplementary analysis conducted on two subgroups with low and high success (separated by using median score computed on the result of Questionnaire of Entrepreneurial Success) revealed that successful and less successful managers differ in every sub-dimension of general and specific managerial competencies (p < .05) except of Knowledge of legislation and regulations. Cohen's coefficient showed that the most important (d > .5) competencies for entrepreneurial success are: Leadership, Innovativeness, Cooperation, Knowledge of production and logistics and Knowledge of the market.

Table 1: Descriptive Statistics and Correlations Coefficients for Analyzed Variables (*N* = 264)

	Variable	*M*	*SD*	1	2	3	4	5	6	7	8
1	Gender [a]	.75	.43								
2	Age	42.38	10.10	.14							
3	Experience	11.53	8.70	.15	.62**						
4	Branch [b]	.30	.46	.11	.15	.15					
5	Size [c]	.29	.46	.02	.13	.08	.30***				
6	Time of running [d]	.55	.50	-.12*	.44	.46	-.14*	-.05			
7	General competencies	75.71	10.63	.02	.05	.01	.02	.14	.08		
8	Specific competencies	73.19	11.50	.01	.11	.11	.03	.03	.01	.64***	
9	Entrepreneurial success	36.08	4.98	.03	-.08	-.01	.07	.02	.02	.32***	.30***

Note: *M* – arithmetic mean, *SD* – standard deviation, [a] 0 = female, 1 = male; [b] 0 = service, 1 = production; [c] 0 = small sized companies, 1 = medium sized companies; [d] 0 = up to 3.5 years, 1 = over 3.5 years; * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed).

For assessing the contribution of the competencies in the prediction of SME success, after controlling for the background variables (company characteristics and the manager's socio-demographic variables), and to verify hypothesis 1, hierarchical multiple regression analyses were performed. The firm's characteristics such as branch, size, and time of business running were entered as the first set of predictors of SME success. In the second set, the manager's socio-demographic variables (gender, age, and managerial experience) were added into the regression equation. In the last step, general and specific managerial competencies were entered into the equation.

Multivariate testing showed that branch, size, and time of running a business were not important predictors of SME success. These three characteristics didn't account for any variance (zero percent) in business success. Only one percent of the variance was accounted for by gender, age and experience of the manager. These predictors were also not statistically significant. Managerial competencies, when added to the model, increased the proportion of explained variance in business success by 12 percent, bringing it to a total of 13 percent. Both general ($\beta = .24$; $t = 3.12$; $p < .01$) and specific managerial competencies ($\beta = .15$; $t = 1.97$; $p < .05$) were important predictors of SME success. In this step of the hierarchical multiple regression analysis, age of the manager also became a statistically significant predictor of success ($\beta = -.15$; $t = 1.99$; $p < .05$) – older managers assessed the successes of their companies lower.

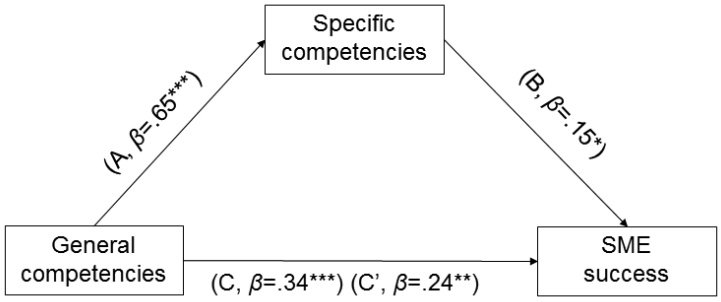
In order to check whether specific managerial competencies mediate between general competencies and SME success (*H2*), a mediation analysis was carried out on the result of hierarchical multiple regression analyses (Figure 1). The performed analysis showed that all conditions of mediation were met (Baron and Kenny, 1986). The result of the Sobel test[4] (4.84, $p < .001$) strongly demonstrates the mediating role of specific managerial competencies between general competencies and success. It shows that the relation between general competencies and SME success is reduced significantly by the inclusion of the specific managerial competencies. However the mediation is only partial (see Rucker, Preacher, Tormala and Petty, 2011). The path from general competencies to SME success is reduced but is still different from zero when the dimension of specific managerial competencies is introduced.

Discussion and Managerial Implications

The successful activity of SMEs has a significant impact on economic development (e.g. Bosma et al., 2008). Therefore it is important to identify factors which consolidate the success of these firms. The study aimed to contribute to our understanding of how managerial competencies of CEOs affect SME success measured as subjective assessment of economic growth indicators against competitors on the market. While most research in career success focuses on big businesses and career success of employees (which is demonstrated for example by the meta-analysis of Ng et al., 2005), the present study examines managers of SMEs. The strength of this study is also that it allows for broader generalizations of

4 For calculating this statistic an interactive calculation tool for mediation tests was used. (http://people.ku.edu/~preacher/sobel/sobel.htm)

Figure 1: Diagram of a mediation model (independent variable – general competencies, mediator – specific competencies, dependent variable – success)



Note: * $p < .05$, ** $p < .01$, *** $p < .001$

the research findings due to the fact that it uses a sample of five European countries which is representative of the population of managers in each of these countries. The findings show that success in running a business was predicted to some degree by general and specific managerial competencies, even when background variables were controlled. The present study builds upon past research by providing the insight into the interplay between two broader types of competencies and SME success. Specific managerial competencies proved to be a mediating variable between general competencies and SME success.

The results of this study generally corroborate the theoretical model assuming that more specific personal characteristics are mediators between general personality characteristics and business success (Rauch and Frese, 2007a, 2007b). As it was shown, general competencies affect not directly but through more specific managerial competencies organizational performance. Baum, Locke and Smith (2001) also found that general competencies (organizational skill, opportunity recognition skill) have significant indirect effects on business growth, while specific competencies (industry and technical skill) have significant direct effects on business growth. Such results point to the need of exploring the role of general personality factors in entrepreneurial activity, yet not as direct predictors of entrepreneurial actions and its success but in more complex models. Such models may help us to better understand how individual differences influence entrepreneurial behavior and its outcomes (Markman, 2007).

Moreover, general competencies proved to be a stronger predictor of SME success than specific knowledge of management. They may not only support specific managerial competence acquisition but also may help managers to effectively influence their employees and in this way increase the chances for success of the firm on the market (cf. Vazirani, 2010). It is likely that general competencies facilitate the development and accumulation of specific knowledge during training or an individual manager's experience (Hezlett, 2004). So, simply possessing general or specific managerial competencies did not guarantee success.

The limitation of the study is use of self-report measures. However, the M-Astra scales scores are, to a small degree, dependent on social desirability~ correlations up to .29 (Laguna et al., 2011). To make the evaluation of success more objective, the managers compare their organizational performance with the situation of their two major competitors on the market (Wiklund and Shepard, 2005; cf. Richard et al., 2009) to better embed the results in the real market situation of the firm. However this measure of business success is still more subjective than objective, and sometimes it may be difficult to compare a particular firm with its competitors. Due to the relatively small sample size in each country, we did not analyze them separately. Further analysis on this area may include culture as a potential moderator.

In spite of its limitations, the findings of our study provide some implications for interventions aiming at increasing successful SME management, by development of the CEOs managerial competencies, which are not so stable, but can be trained and modified. Different activities such as training courses, coaching and mentoring can be used to develop both types of competencies. A high level of general competencies (leadership, innovativeness, cooperation appeared

to be most important) could increase the capability of developing more specific managerial competencies (most important: knowledge of production and logistics, and knowledge of market). The M-Astra method, used in this study as a measure, could be also used as a tool for training needs analysis that offers guidelines for the development of competencies. Properly designed activities aimed at developing the SME managers' personal competencies may be key factors for SME success.

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