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2007

Online at <https://mpra.ub.uni-muenchen.de/15937/>

MPRA Paper No. 15937, posted 29 Jun 2009 14:36 UTC

## **How to Gain Success in SME? A Case Study of a Czech Region. \***

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### **Abstract**

The small and medium sized entrepreneurship (SME) is often considered as being a phenomenon of our times. Why have so many authors dedicated their work to this field? The main reason is that SME influences society and contributes to the economic development of the region, where they establish their businesses. The analysis emphasizes endogenous factors for success. The situation in the Moravia-Silesian Region (northeast region of the Czech Republic) where we applied the factor analysis on the research sample supported our hypothesis. Moreover we used VRIO analysis to clearly interpret research findings.

JEL Classification Number(s): L20, L26

Abbreviations: CZSO, EU, GDP, KMO, MS, PCA, SME, SWOT, VRIO

Date: December, 28, 2006

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For citation: ŠEBESTOVÁ, J., RYLKOVÁ, Ž., SMYSL, M. How to Gain Success in SME? A Case Study of a Czech Region. In South East European Journal of Economics and Business Vol. 2 No. 1. Sarajevo: School of Economics and Business in Sarajevo, 2007. s.41-46 ISSN 1840-118X.

### **Introduction**

Factors, which nowadays have the power to change trends in regional development, can be simply divided into two groups according to the environment where they come from – exogenous and endogenous factors. By the way, the definition of the EU regarding small and medium sized entrepreneurship is only a quantitative measurement or an effort to classify a business unit in the market using statistic methods and tests. Gaining an inside qualitative approach to entrepreneurship looks more important for entrepreneurship development and the factor analysis of influencing aspects.

The main reason for this work is to present my own research findings in the SME field. The principal view point is to identify and describe the endogenous factors, which characterize

standard business behavior in a chosen region. This region represents a territory with the second lowest entrepreneurship activity rate in the Czech Republic (Czech Statistical Office, 2005) under the theory that the “SME units are closely connected with the region where they were born”. We have to examine entrepreneurship focusing on the potential of a business unit (what it could offer to society or the market; supply side) and resources for activity development (financing, human resources) in the context of the dynamics and turbulence of the business environment. All these factors make important changes in strategic entrepreneur behavior (Slávik, 2005).

The analysis is based on a statistic data analysis on a descriptive level, representing the quantitative research area (frequency, average values in a one dimensional space; cross tabs with Cramer’s contingency coefficient - V); as well as multidimensional statistic methods in qualitative research area, using Principal Components Analysis (PCA). All collected data were processed in SPSS for Windows, ver. 11.5.

Based on findings of the empirical study, conclusions are made by means of synthesis of bibliographical sources and results of the individual factor research defining barriers in the SME sector, especially emphasizing internal factors (under an active influence of a business unit). The VRIO strategic method of internal business analysis has been used to classify and interpret the established factors (Barney, 1991) as a source for strategy planning and directing it to be more competitive in a globalized business environment.

## **1 Entrepreneurship Success Evaluation**

The measurement of entrepreneurship success is a long term process. The process of optimal utilization of sources and the potential can be found for the first time in the work of Ricardo

(1817), his ideas were expanded by Penrose (1959) and Wernerfelt (1984). We can include Barney (1986) in this group of authors because he tried to establish analytic methods to find and interpret business behavior and factors with influence on their market position and success, based on an empirical study.

Barney's theory firstly poses the question, of why some businesses are more successful than others. Firstly, he compares the strategy type commonly used by business units. The main factor, which affects company behavior in the market, is imperfect competition. The strategy preparation and its implementation in this business situation could cause the growth in costs of the used strategy. The tool, identified by Barney, for improvement of the situation is specified as the market of strategic factors which is dependent on managerial skills and their effective combination and utilization. (Barney, 1986, p.1231).

Barney maintains that each strategic factor bears a different benefit or opportunity for an entrepreneur. We may illustrate his idea as a logical sequence below:

*Different strategic factors =>*  
*Product markets in imperfect competition =>*  
*Higher benefits for competitors...*

Following Barney's theory, this sequence highlights one important thing which is that entrepreneurs have no other option than to evaluate their strategic steps, information sources and their own business potential. He emphasizes confrontation between endogenous activity monitoring and the internal source analysis. Barney's conception was criticized and then modified by Dierickx and Cool (1989), who made some recommendations and corrections in the strategic factor analysis. They said that another factor existed influencing strategic behavior – support policy from the government, which influences the combination of strategic

factors used in the observed time. They recommend the following items to be included in the analysis:

- Seasonal economic fluctuation connected with capital market and capital cost; demonstrating the economic rule saying that in time yields decline in value (in the case of costs being viewed as constant),
- Effective utilization of total assets – accumulation of assets comes from good asset management,
- Capital and asset connection – accumulation is determined by variability of capital, which influences debt ratio due to use of alternative financial resources,
- Decline in asset value – all assets lose their value by depreciation and wear and tear,
- Causal ambiguity (Lippman, Rumelt, 1982) - comes from the Stochastic theory of accumulative process of strategic activities.

According to this approach it is necessary to define strategic steps as factors, which bring a competitive advantage to each business unit in the market. Barney connected all factors and recommendations in his analysis, called VRIO. As resources, he defined finances, human capital, individuality and managerial skills. Capacities, by contrast, he entitled as “internal abilities”, which coordinate and derive benefit from them (analytical scheme of his ideas, see table 1).

**Table 1 VRIO scheme**

<b>Question of Value</b>	<b>Question of Rarity</b>	<b>Question of Immitability</b>	<b>Question of Organization</b>	<b>Competitive position</b>	<b>Economic contribution</b>
No	----	----	No	Disadvantage	Low
Yes	No	Yes	----	Comparative advantage	Normal
Yes	Yes	No	----	Temporary advantage	Higher

Yes	Yes	Yes	Yes	Long-term advantage	Very high
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Source: Barney, 1997: 163, modified by author

We can connect the VRIO parameters with a part of the SWOT analysis as a more popular method for strategic planning, especially strong and weak point comparison (see table 2)

**Table 2 VRIO and S-W array**

Question of Value	Question of Rarity	Question of Immitability	Question of Organization	Strength (S) or weakness (W)?
No	---	----	No	W
Yes	No	Yes		S
Yes	Yes	No		S, comparative advantage
Yes	Yes	Yes	Yes	S, long term advantage

Source: Barney, 1997: 163, modified by author

Under Barney's theories this means that capacities or resources which are valuable, imperfectly imitable or rare bring long term advantages in the market, and the economic benefits to society exceed the normal value. Business prosperity is the factor, which we can mention only in a long term analysis (Barney, 1997: 164).

## 2 Theory Application in the Moravia-Silesian Region

The Moravia-Silesian (MS) Region is situated in the Northeastern part of the Czech Republic and the Government classifies it as a region with low development tendencies along with another Northwestern Region of Ústecko. The classification came from the last economic analysis which stated that the region would not improve in the long term forecast. To be more

specific, we may compare the annual GDP rate per one inhabitant in the region at 6 981€ (CZSO, 2005), with the GDP rate per one Czech inhabitant of 8 503 €. Both regions have the highest unemployment rate in the Czech Republic. The situation arises from the unfinished process of economic restructuring. (Plan of National Development 2007-2013, p. 103) After 1990, the impact on the region resulting not only from changes in the structure, but also from industry revitalization and decline of coal production was severe (closing down big companies in heavy industry-main historical specialization) and the current unemployment rate is 14.22% in 3Q/2006 (CZSO, 2006).

Other authors call this region a dynamic region or a region in progression. Environment improvement, infrastructure building and a finished process of privatization could be an impulse for foreign investors such as Hyundai. The region has prepared many industrial zones to attract companies and support the transfer of advanced technologies.

The analysis for the SME description was collected in the mentioned region during 2005 and early 2006 and the questionnaire was distributed to 1 800 units; we obtained 1 199 responses by personal visit. We computerized all the data using a statistical method. The main emphasis was placed on the relationship between factors influencing business activities in the region.

**Table 3 Research sample**

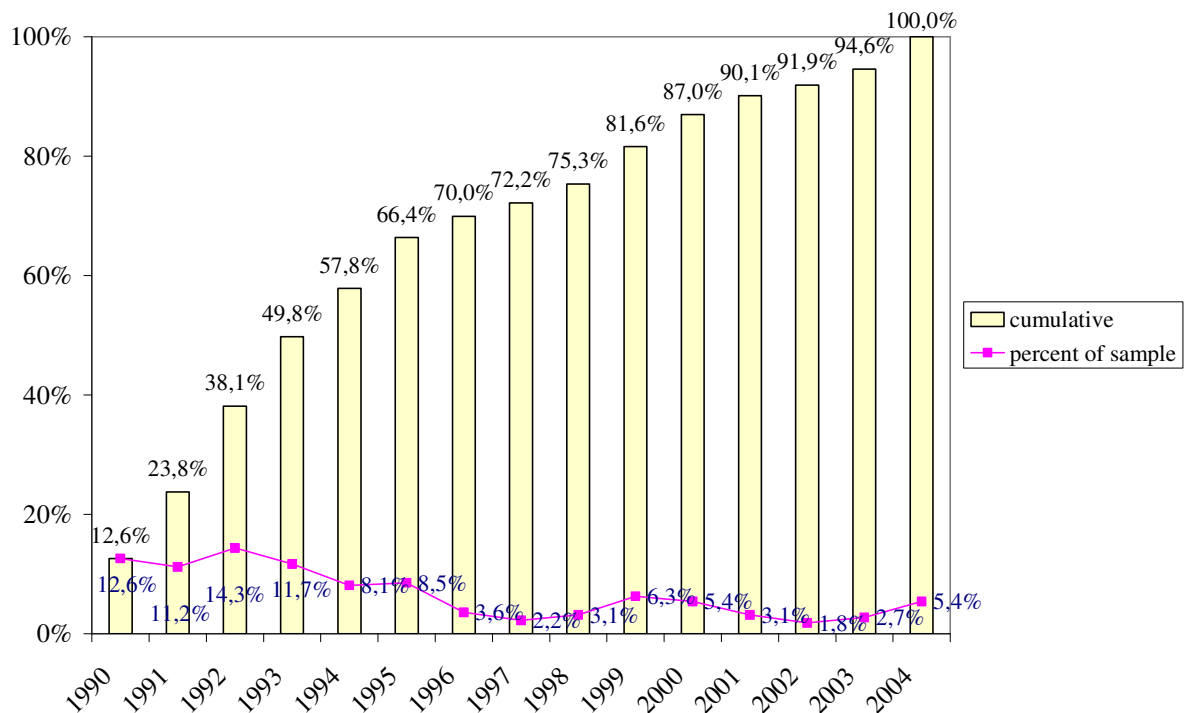
<i>Company type</i>	<i>Number</i>	<i>Percentage share</i>
Micro (under 10 employees)	6 33	52. 8%
Small (11-49 employees)	3 54	29. 5%
Medium (under 250 employees)	2 12	17. 7%
<i>Total</i>	<i>1</i> <i>199</i>	<i>100</i> <i>%</i>

The size of the research sample corresponds to 0.52 % of registered business units in the region in 2005 (229 242), but the Czech Statistical Office (CZSO) states in their SME study, that only two thirds of these units actively carry out business activities (CZSO, 2005). Therefore, the percentage of the research sample could cover about 0.8% of all the registered units.

Firstly, we have to start with the time factor, which could influence business behavior today. The period of operating in the regional market could show a relationship between competitiveness of SME units and their effective work with capacities and resources. The graph below shows that more than 65% of examined units had been established before 1995. It demonstrates that owners know their business environment sufficiently and have discovered a strategy to survive in the market. On the other hand, only 20.6% of units in the sample were set up during the 1995-2000 period and in the last four years it was a mere 13%. Following the time factor it seems there is a tendency that new units will not be established at this fast rate, because CZ have the highest SME unit rate per 1000 inhabitants, in 2005 it was 230.8 (Kozak, 2006), mainly self employed persons.

### **Graph 1 Research sample – SME by year of founding**





We can divide units according to the scope of their business activities into enterprises operating in the following sectors: agriculture (2.2%), industry and production (45.7%), business (26.5%) and services (25.6%).

## 2.1 Quantitative Research Area

The main research goals were to describe entrepreneurial behavior under exogenous factor influence. These factors try to stimulate business activities in the region. The main research hypotheses were (in percentage share of the sample):

- Entrepreneurs prefer job-creation support (50%) and ways of how to increase their customer base (60%),
- The main reason, why they decide to close down their businesses is lack of financial resources (70% of the respondents),
- The main information source is not official statistics and analyses; decline of quality of information.

The frequency of individual factors in the research sample was used in order to identify individual factors and for relation determination we applied Cramer's contingency coefficient V (Cramer, 1946), which represents the rate of most suitable association between two nominal variables. To interpret coefficient results we used Cohen's coefficient V interpretation (1988)– the figure exceeding 0.5 means strong dependence between variables; 0.5-0.3 average dependence; 0.3-0.1 low dependence and the figure below 0.1 zero dependence (Hintošová, Rimarčík, 2005).

#### *Taking Advantage of the Business Support System*

Taking into consideration exogenous factors the support system plays an important role. Several areas, which could motivate entrepreneurs to use this type of financing source, have been identified. The main reason why entrepreneurs prepare their projects is to expand from local markets to another region (72%), then new customer base building (65%), job creation activities (45%), gaining quality certificates (30.5%) and export support (29%); on average entrepreneurs identify 2-3 factors to be useful for development.

We were able to prove the hypothesis in the area of business support only partially, because the most important support area is expanding or finding new opportunities in other markets within the region (72%), followed by finding a new customer base (65%). Job-creation was not as preferred as we supposed in the hypothesis preparation. From another point of view, we confirmed the average dependence between export support and obtaining of certificates (Cramer V =0,312; P<0,001), where the influence of the EU quality regulations is evident.

#### *Factors Leading to Closing down the Businesses.*

An exogenous factor, which could cause the end of business activities, is traditionally low supply of start up capital (69%). In this case the set hypothesis has been proven to be true. The second factor comes from competition increase in the sector of their business activities (40.4%). Another factor with lower significance was identified as bureaucracy when doing business (25%) and the quality of the business environment (16%). Gained factors could motivate SME owners positively; they could help them to become interested in the integration opportunity and take advantage of business cooperation. Financing availability and the quality of the business environment suggested an average dependence relationship. (Cramer  $V=0,360$ ;  $P<0,001$ ).

#### *Impact of Information Quality and Sources*

The last factor for examination was sources and quality of business information, available to SME owners. The initial hypothesis has been proven here, specifically that the best information source is one's own systematic sources (72%), then manager informal affiliations (65%), followed by official statistics (43.9%) and custom-made analyses (22%); on average two information sources are used.

In the area of information quality and reliability we have verified that these aspects have worsened since the EU accession (Cramer  $V=0,554$ ;  $P<0,001$ ) and many SME owners find information supply chaotic. The rate of association between these two periods has fallen by 10.2 % in comparison with the period before the EU accession (Cramer  $V=0,617$ ;  $P<0,001$ ).

## **2.2 Factor Analysis**

To get more sophisticated results and to identify dominant tendencies, we used PCA with a VARIMAX rotation (factor loading minimization); applicability of data was examined by the Bartlett's test of sphericity with the values of the presented results being under  $P<0.05$  and for

other data we used the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) with a recommended minimum value of 0.6 (Sharma, 1996).

In the questionnaire we used a scale from one to six, which represented the time needed for entrepreneurs to respond to changes in certain factors (1-immediately, 6-period exceeding one year). Below we have analyzed endogenous factors such as managerial skills and competencies, strategy implementation etc.

### *Managerial Skills (MS)*

The research area covered 9 factors from a classic approach based on management functions, including corporate culture and coordination skills of the unit owner. In 61% of examined units (KMO=0.854) the equation below represents the adequacy of managerial skills, where communicative activities are the most flexible; scale value 1.87 (up to one month).

$$MS = f(M), f(A) \text{ where}$$

f (M)... “Manager Factor”, influenced mainly by organizing skills (0.846) and planning skills (0.789)

f (A)... Atmosphere Factor as the factor influencing social environment (0.855)

The research has proven that planning and organizational skills are very closely connected and they guarantee the success of the strategy implementation as presented in the Classical school of management thinking (correlation = 0.674, Cramer V= 0.529; P<0.001).

*Strategic planning and its correction in time axis.*

The examined area was divided into two parts based on the hypothesis that EU accession had an influence on SME behavior in the market, consisting of 4 strategy components – marketing and human resource planning, financial and production plans. The level of data relevancy was more than 62% (KMO=0.816) in both cases.

*1. Before the EU accession (2002-2004)*

PCA found only one dominating factor; all the strategy was based on a marketing approach (0.818), where the correlation is 0.667 and Cramer V=0,462; (P<0.001). The factor which causes changes in planning was identified as financial planning – scale value of 3.46 (4.5 months).

*2. After the EU accession (2004-2006)*

The result seems to be the same: PCA found only one dominating factor; all the strategy is based on a marketing approach (0.843) with the most flexible being the financial area – scale value of 3.24 (3.75 months).

By comparing the results it was established that there was a growing trend of strategy dependence on a marketing approach after the EU accession (correlation 0.693, Cramer V= 0.438; P<0.001). It means dynamics on the rise by 5.6% compared with pre-accession planning.

#### **4 Discussion**

As said above, the VRIO method was used to classify the resulting factors which lead to improvement of competitiveness and growth of advantages for an SME unit.

The V.R.I.O. model (Barney, 1991) looks for a competitive advantage of the entrepreneur's sources, which consequently ensues from the implemented analysis of endogenous factors. Each resource must answer the criteria and questions according to Barney. The advantage arises from resources, which have all four attributes (Cahlík-Sovina, 2003):

- V (valuable) – ability to bring added value: while sources activities or processes, which do not bring any advantage represent an economic disadvantage,
- R. (rare) and I. (imperfectly imitable) – inimitableness is based on different factors such as unique materials or abilities of the human capital,
- O (organization) – success depends on the organizational ability to exploit the advantage sufficiently. Without this attribute, you lose any advantage you may have.

**Table 4 Factor comparison by VRIO application in MS region**

<b>Capacity or resource</b>	<b>Creates value?</b>	<b>Rare?</b>	<b>Imitable?</b>	<b>Exploits a success of SME?</b>	<b>Competitive position</b>	<b>Economic contribution</b>
SME specialization	Yes	In some ways	Yes	In some ways	Comparative advantage	Normal
Customer relationship management application	Yes	In some ways	Yes	Yes	Temporary advantage	Higher
Image perception	Yes	Yes	Yes	In some ways	Long-term advantage	Very High
Financial sources	Yes	In some ways	Yes	In some ways	Disadvantage	Low
Experience and knowledge	Yes	Yes	In some ways	Yes	Long-term advantage	Very High

SME units in the MS Region are easily imitable (international chains and network, identical products) and their main specialization is not so rare. We could say that factors under the VRIO model are endogenous such as managerial skills and management of human resources, because they bring new ideas, innovative thinking and make a unique position for the unit in the market. They could take advantage of better dynamics and flexibility of changes in the business environment. The knowledge factor in SME development is closely connected with creating a good image and customer satisfaction. We may suppose that the approach to the customer is the most important factor according to the VRIO analysis approach definition. We might say that this is the big advantage for SME development.

Other factors, which exist in the current turbulent business environment, are unpredictable factors, which may negatively or positively influence the long term sustainability of an advantage. Due to their existence, in time opportunities could change into disadvantages in connection with the growth of dynamics as proven in the research (about 6%).

### **Conclusion**

Although we aim for a precise factor analysis, all the used methods have their limitations and imperfections. The VRIO method for example does not take into account rapid changes or unpredictable circumstances, which as a consequence could cause big changes in the entrepreneur's behavior, for instance gaining a competitive advantage in one market in a certain period does not have to result in the same development or outcome in another selected market. Moreover, we have to unify the analysis methodology (Antón-Pomeda, 1999):

Branch → sub-branch → company → department → process.

On the other hand, factor analysis or VRIO analysis application tries only to describe current processes and trends, to discover factors influencing business behavior which is to be adopted by real business units to support their creativity and strategy direction. Factors presented here should be included into three main groups:

- Innovative potential included in the strategy; future training activities, management of human resources – closely connected with endogenous factors,
- Dynamics and flexibility in changes in the business environment, related to used managerial skills, experience and knowledge of the SME unit team to completely solve development of their company,
- Exogenous factors influencing quality of information and financial sources necessary for development.

If we want to summarize the level of strategy planning, we could possibly claim that the main strategic power is in the hands of owners and managers (80 %), including the whole area of information and the power over the entire business unit. When owners want to predict their future development, they trust mainly their own experience and scientific methods (70%), against empirical studies or expert methods (30%). The most frequent changes are observed mainly in production and finance planning (Hintošová, Rimarčík, 2005).

Examples of differences in strategic planning:

- Small companies have a simple linear organizational structure; the main power is in the hands of the owner. They depend on their sense of opportunities in the market,
- Adaptability depends on customers' needs – when they have a small customer base, its influence on behavior increases,



- SME companies are closely connected with the region; their behavior mirrors regional problems,
- SME units build their customer relationship approach into their strategy,
- SME units have to work with limited sources in their region,
- Definition of success is often influenced by the owner's vision, dreams and values,
- Negative attitude towards strategy planning
- Preference for short term planning.

These weaknesses could be bypassed by SME units through their proactive approach to improving their managerial skills or exploiting strategy methods useful for them personally; placing the emphasis on information base building enabling them to connect training, research and experience in order to maximize profit. Taking into consideration influence of financial support from the government, it is easier for the government to prepare some grants rather than to improve the business environment radically and provide the same opportunities for every entrepreneur.

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