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STRATEGIC MANAGEMENT IN MICRO, SMALL AND MEDIUM-SIZED BUSINESSES IN RELATION TO FINANCIAL SUCCESS OF THE ENTERPRISE

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Abstract

ŠVÁROVÁ MONIKA, VRCHOTA JAROSLAV: *Strategic management in micro, small and medium-sized businesses in relation to financial success of the enterprise.* Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 2013, LXI, No. 7, pp. 2859–2866

Small and medium sized enterprises play an essential role in the economy of the Czech Republic as a report of development of small and medium-sized enterprises and its support from 2010 announces. They are the source of development of towns, regions and the state itself. Small and medium-sized enterprises represent 99.84% of the whole business subjects. Statistic data underline this position- they indicate that small and medium-sized enterprises employ 2/3 employees. Therefore, occupying small and medium-sized enterprises are to be taken as priority.
Strategic management on the level of small and medium-sized enterprises is, as number of authors write, diverse. Small enterprises including micro have less access to capital, they have no money for employing specialists in the field, and they solve administration primarily. The aim of this follow-up GAJU project contribution concerned on process analysis of small and medium-sized enterprises is to summarize the gained results from the view of comparison of the level of strategic management in small and medium-sized enterprises.
Nowadays, numbers of enterprises are thinking about whether they are able to remain in the market as an established company, they explore the possibility of improving its position. There is a question for small and medium-sized enterprises management- can strategic management be used as an instrument for increasing competitiveness? The results show that SMEs with a clearly defined strategy show better results of financial health (IN99 and ROA) than companies without a defined strategy. In terms of business focus, we were able to demonstrate positive relationship between strategy and finance only for companies in the construction industry, on the significance level of 0.05. Compared to manufacturers and service-providing companies where this relation is not statistically significant.

strategic management, strategy, IN99, ROA

1 INTRODUCTION

Global environment around us makes heavy demands on every enterprise. Entrepreneurs have to know where they are heading, what they want to achieve, what are their competitive advantages and disadvantages compared to its competition. Clear, understandable definition of vision, mission and direction of the organization can play a key role in the company's success.

The aim of this paper is to analyse the relationship between strategic management (respectively, whether the companies have prepared strategy) and the financial health of the company (according to the return on assets and IN99).

Small and medium enterprises are an essential element of every economy. According to a report on the development of SME business and its support in 2011, which was issued by the Ministry of Industry and Trade of the Czech Republic, SME businesses played very important role in the development of the national economy and the region. According to the same source, SMEs are a source of innovation, development of cities and towns in the Czech Republic. The share of SME in

the active business was 99.84% in 2011 (*Ministry of Industry and Trade: Report on the Development of Small and Medium Enterprises and its support in 2011*). The Definition of the European Union classifies enterprises as the micro, small and medium-sized according to the number of employees, turnover or total assets. As an micro-enterprise is considered an enterprise, which employs fewer than 10 persons and whose annual turnover or annual balance sheet total does not exceed 2 million EUR. Small business is characterized as an enterprise, which employs fewer than 50 persons and whose annual turnover or annual balance sheet total does not exceeding 10 million EUR. Medium enterprise employs fewer than 250 people and has an annual turnover not exceeding 50 million EUR or balance sheet total does not exceed EUR 43 million (European Commission: A new definition of small and medium-sized enterprises 2006).

Defining of strategic management is not clear. According to Tyndall and Cameron (1990) the definition always depends on the organization. Every business has its own definition of strategy or strategic management. According Alkhafaji (2003) the strategic is a process of assessing the corporation and its environment in order to meet the company´s long term objectives of adapting and adjusting to its environment through manipulation of opportunities and reduction of threat. As stated by Keřkovský, Vykypěl (2006) strategic management is based on long term forecasts and helps to solve business problems and search future opportunities. Sedláčková, Buchta (2006) sees the benefits of strategic management in giving clear goals and directions to the organization for its positive future development. According to Tichá, Hron (2005) the fundamental purpose of the strategic management is the creation of competitive advantages, as the most important condition for successful business. The full potential of the company should be focused to achieve this objective by everyday operational decisions, which are based on long-term strategic focus. Strategic management is a challenge for the entire enterprise at every moment of its existence, not only to a narrow circle of professionals once a year. It is a way of thinking, a guide to action and determining factor in the behaviour of each company member.

Synek and Kislingerová (2010) stated, that benefits of small and medium enterprises are given by the disadvantages of large enterprises. Benefit from the introduction of strategic management in small enterprises defines Analoui, Karami (2003) as follows: SM facilitates understanding of the current situation, in which the company is located; gives a clear view of the vision and mission of the enterprise; specifies strengths and weaknesses, emphasizes those that are strategically important for company activities; helps set the right objectives; allows a business to be more active; prepares the organization to be able to deal with the expected and unexpected problems, and creates a space for the communication management in the organization; implements the environmental issues and its amendments; allows introduction of ethics and corporate social responsibility in the strategic process. Strategic management in small enterprises is not applied (meaning using the methods of strategic management), particularly for time and financial reasons. Large companies deal with strategic management in more detail. SMEs, on the contrary, have the chance for further development of the strategic management and secure the implementation to the management as such. Strategic management may in fact be one of the instruments for increasing the SME's competitiveness. According to Charvát (2006) firms take a position: "When other enterprises do not need the strategy, we do not need it either." It is important to realize that for the change, which will be brought by designing the new strategy, it is absolutely inevitable to involve, not only some but all of the existing senior management involved in the strategy.

Hučka, Kinsligerová and Malý (2011) stated that the competitiveness of a company's is given by the ability of at least maintaining, but better increasing its market share. In this article, we selected indicator ROA and index IN99 for comparison of competitiveness determinants.

2 MATERIAL AND METHODS

The objective of this paper is to find the relationship between the implementation of strategic management in the company and its stability in the market, or financial success of the company. As an indicator of whether the company is financially stable, we selected the following indicators – ROA and index IN99.

2.1 Characteristics of the sample

Data were collected from 176 companies, as shown in Tab. I, and research sample was selected using non-probable random selection, according to circumstances of the data collection. The data necessary for conducting the research were collected by a questionnaire survey and these data were supplemented by qualitative data, obtained through in-depth interviews. The extended (qualitative) data were used primarily to specify uncertainties. Financial data were obtained from financial statements and clarified during the interviews with the enterprise representatives. Only manufacturers and companies operating in services and construction were selected for the research, because (except the wholesale and retail enterprises) these are the most numerous groups of enterprises. Other areas of business have been intentionally omitted to avoid skewing the data (small representativeness, or omissions in the whole project support).

I: *Characteristics of the sample. Source: own processing*

Number of employees	Percentage of enterprises		Focus on ent.	Presence of ent.	
Micro-enterprises	20	12%	Manufacturers	79	45%
Small ent.	95	53%	Services	46	26%
Middle ent	61	35%	Construction	51	29%

2.2 Characteristics of financial success

The criterion for financial success is assessed on the basis of the average profitability and IN99 index during the period of five years, mainly because it is a relative indicator of profitability and can provide comparison of different sized businesses. Period of five years was chosen in order to eliminate random variables, but also to manifest systemic problems such as over-indebtedness of chosen business.

Successful business in terms of profitability is one, which is located in the upper quartile of 25% companies achieving highest profitability. Profitability or return on invested capital is a measure of the ability to make a profit using the invested capital, which means creating new sources (Knápková a Pavelková 2010).

$$ROA = EBIT / assets \quad (1)$$

IN indexes are based on major bankruptcy indicators and use the indicators that other models considered to be the most important and most frequently used (Neumaierová a Neumaier 2005). Index IN99 builds on the previous IN95 index not taking into account core business of observed company. From the investor's perspective the branch of enterprising is not important, but the ability to overcome financial issues is. Index IN99 includes four sub-indicators, using indicators of economic profit (EVA) (Synek, Kopkáně *et al*., 2009).

$$IN99 = -0.017 \times (passives/assets) + 4.573 \times \times (EBIT/assets) + 0.481 \times (earnings/assets) + 0.015 \times \times (OA/(KZ + KBU)) \quad (2)$$

Scale:

IN99 ≥ 2.07.....Good financial health of the enterprise

0.684 > IN99 < 2.07...Potential problems of the enterprise

IN99 ≤ 0.684.....Poor financial health of the enterprise

Source: (Růčková, 2008)

2.3 Methodology for statistical comparison

Within the results the null hypothesis was formulated (Strategy does not affect the financial success) on the analysed data and the alternative hypothesis (Companies, which have strategy, achieve greater financial success than those who do not).

Data were tested using two-sample Wilcoxon test and his asymptotic variant. This test is a non-parametrical two-sample test, which is most frequently used, when the condition of data normality is not met. At samples larger than 30, there is no significant impact on results using data with slight normality corruption.

Let $X_1, \ldots, X_n$ and $Y_1, \ldots, Y_m$ be two independent random samples from two continuous distributions, whose distribution functions can only differ in displacement. $x_{0,50}$, $y_{0,50}$ states for the median of the first and second distribution. The hypothesis that the distribution functions of the two distributions are the same is always tested, in other words, the medians are tested for equality. The result of test is compared to the alternative hypothesis (the first of medians $x_{0,50}$ of companies which have strategies, is greater than the latter) (Freund, Wilson *et al*., 2010; Friedrich and Majovská 2010).

$$H_0 = x_{0.50} - y_{0.50} = 0 \text{ proti } H_A = x_{0.50} > y_{0.50} \quad (3)$$

Source: (Budíková, Králová *et al*., 2010)

In the first stage, all (n + m) values $X_1, \ldots, X_n$ and $Y_1, \ldots, Y_m$ are arranged in ascending order by size. The entire process takes place electronically using test statistics software and this step is not described in the article, because it is a lapidary operation. Furthermore, the totals of orders $X_1, \ldots, X_n$ are identified and stated as T_1. The sum of the values in the order of companies which do not have strategy $Y_1, \ldots, Y_m$ will be stated as T_2. The next step was to calculate the test statistics for U_1 and U_2, while applies that $U_1 + U_2 = mn$ (Friedrich and Majovská 2010).

$$U_1 = mn\frac{n(n+1)}{2} - T_1\,,\; U_2 = mn\frac{m(m+1)}{2} - T_2 \quad (4)$$

Source: (Budíková, Králová *et al*., 2010)

If statistics $mn\{U_1, U_2\} \geq$ tabulated critical value, for the selected ranges of both selections and chosen level of significance, then than we may reject the null hypothesis of the identity of the compared groups on the significance level $\alpha = 0.05$.

Since for both samples in all test cases applies that n, m are greater than 30 the asymptotic variant of the Wilcoxon test (Mann-Whitney test) is undertaken, which is used for n and m higher than thirty.

$$U_0 \frac{U_1' - \frac{mn}{2}}{\sqrt{\frac{mn(m+n+1)}{12}}} \quad (5)$$

Source: (Budíková, Králová *et al*., 2010)

Critical codomain for right-side alternative id W = <K2,n>. Non-negative values k1 a k2 are strictly defined in critical literature. H0 is rejected on the

level of significance α, if U0 W (Freund, Wilson *et al.*, 2010).

3 THE RESULTS AND DISCUSSION

First of all, the hypothesis for ROA was tested in the research on the level of significance α = 0.05; Enterprises which use strategies are as successful as those who do not.

Where X= ent. which strategy and Y= ent., which do not, are tested hypothesis:

$H_0 = x_{0.50} - y_{0.50} = 0$ $H_A = x_{0.50} > y_{0.50}$

Tab. II created using STATISTICA software shows the most important values. The individual columns are described for easier orientation. "YES" states for rank sum of values for enterprises, which strategy and NO stands for rank sum of values for enterprises which do not. U stands for desired minimal value from U_1 and U_2. Z stands for values of asymptotic test statistic in methodic marked as U_0- P – value is calculated desired value which will be compared against α and used for rejecting or not rejecting the null hypothesis. Further, p-value will be modified for one-sided alternative hypothesis and again compared against alpha.

In this case final p-value is 0,0216 is smaller than chosen alpha, and we are able to reject the null hypothesis on the significance level 0.05. We may claim that the formulated strategy positively affects ROA indicator. Test result is also illustrated by Chart 1, where the distribution of ROA of the enterprises with the strategy lays above the companies without a strategy.

In the following tested hypothesis only summarizing Tab. IV with the most important values will be provided to make the results clearer.

According to the identical principles the hypothesis concerning IN99 was established. Where X% = ent. strategy and Y = ent. are not strategy, hypothesis is tested:

$H_0 = x_{0.50} - y_{0.50} = 0$ $H_A = x_{0.50} > y_{0.50}$

Final p-value is 0.0482 is smaller than chosen alpha and we are able to reject the null hypothesis on the significance level of 0.05 as we can see in Tab. III. And while half of the p-value is lower than α which confirms the alternative hypothesis and we may state, that the strategy has a positive effect on the indicator IN99.

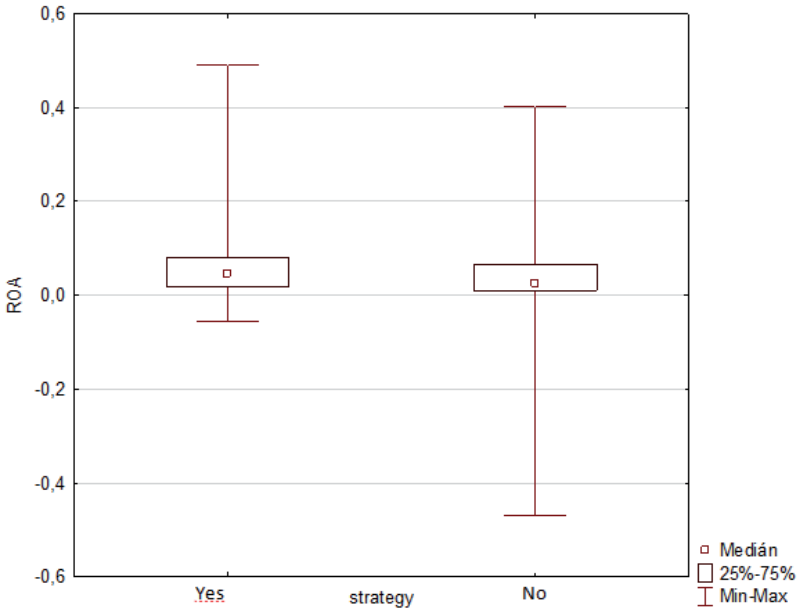
Based on this result we might state that strategy doesn't affect the financial success of SMEs. Using the same principles various types of enterprises were tested on the significance level of 0.05. The test results are shown in Tab. IV.

In the same manner the relations of strategy, IN99 and ROA were tested within the business sectors,

II: *Outcome from software Statistica. Source: own processing*

Highlighted tests are significant on the level p <.05000					
	YES	**NO**	**U**	**Z**	**p-value**
ROA	11088.00	4488.000	2718.000	2.297148	0.021611

p-value = 0.0216 α = 0.05
0.0216 < 0.05 p-value < α



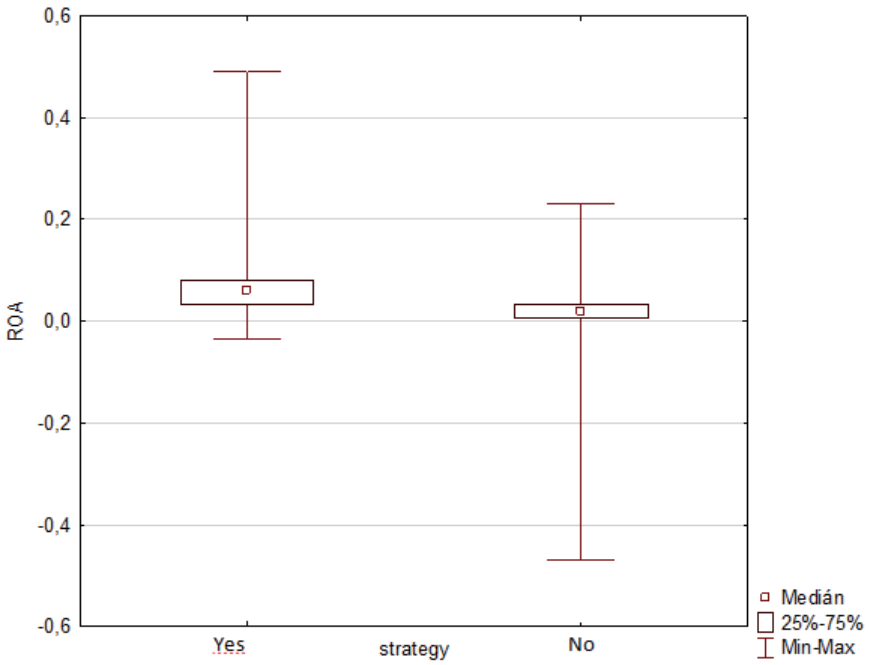
1: *Strategy and ROA*
Source: own processing

III: *Outcome from software Statistica. Source: own processing*

Highlighted tests are significant on the level p <.05000					
	YES	**NO**	**U**	**Z**	**P-value**
IN 99	10972.00	4604.000	2834.000	1.933616	0.048212

IV: *SME enterprises and strategy. Source: own processing*

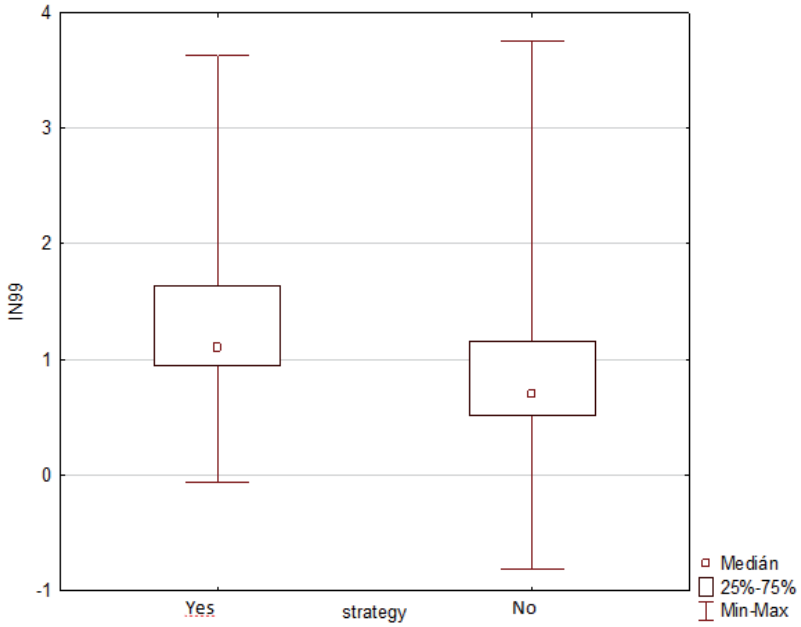
Notes:	**X = ent.with strategy**			**Y = ent. without strategy**	
$H_0 = x_{0.50} - y_{0.50} = 0$			$H_A = x_{0.50} > y_{0.50}$		
Strategy	**Indicator**	**p-value**	**H_0**	**Adjusted p-value**	**H_A**
Strategy YES/NO	ROA	0.0216	Rejected	0.0108	Not-rejected
	IN99	0.0482	Rejected	0.0241	Not-rejected
Manufacturers	ROA	0.7014	Not-rejected	0.3507	Rejected
	IN99	0.2320	Not-rejected	0.1160	Rejected
Construction	ROA	0.0161	Rejected	0.0081	Not-rejected
	IN99	0.0486	Rejected	0.0243	Not-rejected
Services	ROA	0.1704	Not-rejected	0.0852	Rejected
	IN99	0.1350	Not-rejected	0.0675	Rejected



2: *Strategy and ROA in construction sector*
Source: own processing

where the companies enterprise. In the services sector we failed to prove that better financial health is based on whether the company has a defined strategy or not (according to ROA and IN99). This can be explained by the fact that service-providing companies usually do not plan much and they often do not follow the strategy, if they have it. Strategy is mainly used in the period of financial trouble. This can be seen in poor results of ROA indicators and index IN99. This presumption was as well discussed with owners of monitored companies. The importance of the business strategy, therefore, appears to be less significant, which is in contrast to the work of authors Bowen, Chase, Cummings and Ofori, who in their book advise to create and shape the strategic plans (Bowen, Chase *et al.*, 1990; Ofori, 1990).

In contrast, for construction companies we managed to reject H0 and simultaneously confirmed HA for both indicators and we can state, that the strategy positively affects these parameters, as shown in Figs. 2 and 3. For this reason, we may recommend strategy designing for these companies in accordance with the authors Langford and Male (Langford and Male 2008). This is may be as well caused by the fact that if the construction



3: *Strategies and IN99 in construction sector*
Source: own processing

companies have a strategy it is usually carried out in detail. Construction is in crisis, as shown in (ČSÚ: Stavebnictví ještě krizi nepřekonalo 2012), the fight for the contract is huge; companies must pay attention to the quality, not the quantity. We now speak about governmental contracts where written materials and strategies of the enterprise are essential. Greater emphasis on strategic management may also be caused by higher quality of the skills and qualifications of the managers.

For manufacturers we failed to prove that the established strategy has a positive impact on the financial health of the company (as according to the ROA and index IN99). These can be explained by more frequent engagement of production plans, as stated by Miltenburg (2005).

CONCLUSIONS

The aim of this paper was to analyze the relationship between strategic management (respectively, whether the companies have prepared strategy) and the financial health of the company (according to the return on assets and IN99). Designing the strategy as stated by many authors (Analoui and Karami, 2003; Tichá and Hron, 2005) is a key factor for the competitiveness of the company, which was proven in the paper for the ROA and the index IN99 at the significance level 0.05, as we may see in Tabs. III and IV. Effect of strategic management at financial success highlighted Rumelt (1991). He noted the importance and the impact on ROA. Other studies have confirmed results, especially that the ROA value does not depend on the size of the company and the variability of ROA across sectors is smaller than the variance across the industry. Roquebert, Phillips and Westfall (1996) explain the company's impact on the final value of ROA (relationship between strategic management and the financial health of the company). According to Short, Ketchen, Plamer and Hult (2007) predicting performance is a cornerstone of strategic management research. For managers, the most important is to tie to firm characteristics, but it also depends on appropriate positioning within a strategic group and the industry.

For service-providing companies and manufacturers we failed, at a significance level of 0.05, to reject the null hypothesis and, therefore, we cannot state that formulated strategies affect the company's finance. For construction companies, we on the contrary may say that a strategy positively affects these parameters, as shown in Figs. 2 and 3.

The survey results mostly correspond with the so far published literature, which rather devotes to large enterprises and doesn't discuss small and medium-sized businesses that much. SME should more emphasis on proper configured metrics and strategy, in terms of their future development and maintaining on the market with respect to their activities. This research is therefore focused only on in the service-providing businesses, construction and manufacturers in SME segment, so these companies may gain an overview on the impact of the strategy on their financial situation.

SUMMARY

The aim of this paper was to analyse the relationship between strategic management (respectively, whether the companies have prepared strategy) and the financial health of the company (according to the return on assets and IN99). Using the Wilcoxon test we tested the hypotheses on differences between enterprises, which use methods of strategic management and enterprises that don't. System of strategic management indicators ROA and IN99 was established. Data were collected from 176 companies. The extended (qualitative) data were used primarily to specify uncertainties. Financial data were obtained from financial statements and clarified during the interviews with the enterprise representatives. Only manufacturers and companies operating in services and construction were selected for the research, because (except the wholesale and retail enterprises) these are the most numerous groups of enterprises. Other areas of business have been intentionally omitted to avoid skewing the data (small representativeness, or omissions in the whole project support). The results show that SMEs with a clearly defined strategy show better results of financial health (IN99 and ROA) than companies without a defined strategy. In terms of business focus, we were able to demonstrate positive relationship between strategy and finance only for companies in the construction industry, on the significance level of 0.05. For service-providing companies and manufacturers we failed, at a significance level of 0.05, to reject the null hypothesis and, therefore, we cannot state that formulated strategies affect the company's finance.

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