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The Taffler's Model and Strategic Management

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Abstract

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 aim of this paper is to map the possible relationship between the evaluation of a firm according to the Taffler's Model and established strategic management in the enterprises. These issues are addressed on a sample of 187 small and medium-sized enterprises from the Czech Republic. Due to incomplete information it was worked with 126 small and medium-sized enterprises. For each company is calculated value of Taffler's Model and was subsequently taken into account whether the company established a strategic management. It is managed by statistical method Mann – Whitney test to demonstrate the dependence between the evaluation of companies according to the Taffler's Model and the established strategic management in the enterprises. The results of statistic method suggest that the companies with strategic management in the Taffler's Model results are not significantly different from the companies without strategic management.

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1. Introduction

In this age of faster and wider changes enterprises are trying to use the benefits which arise from both, the internal and the external environment. One of the advantages of internal environment of the enterprise may be correct, precise and consistent management. Each approach to management, whether procedural or strategic, entails certain advantages and benefits. It is up to each company, to employ benefits of its management style and appraise efforts associated with the management. Just as there is a number of management approaches, there are also innumerable models that aim to evaluate the business, and possibly predict its development. One such model, which aims to evaluate the company is Taffler's model. The question remains whether enterprises driven by strategic management reach higher score of Taffler's than companies without strategic management.

2. Literary Review

In response to Altman analysis in 1977 the Taffler's Model was established. Economists Taffler and Tisshaw examined sample of United Kingdom small and medium-sized enterprises. Under this model a variety of economic indicators was evaluated. The result of their work is set of four key ratios chosen from a sample of 90 original ratios. Using the formula of four indicators and their weights the Taffler's Model can be calculated (Vochozka, 2011).

The Taffler's Model tracks the company's risk of bankruptcy. This model is known in both its original and modified form. The modified form is used when less detailed data is available and uses different indicators (Růčková, 2008). While the basic formula's final evaluative indicator is the share of financial assets net of current liabilities to operating costs, in the modified version this indicator is replaced by the ratio of sales to assets. When evaluating the original Taffler's Model, the grey zone is not used. Enterprises are classified according to the index outcome only on bankruptcy and credibility, zero is critical value for the determining the category. A positive index corresponds with credit business, and vice versa (Vochozka, 2011).

The Taffler's Model as well as other models is not used only for top and big enterprises. A survey performed in New Zealand may help as prove. The models were applied to 185 small and medium-sized enterprises and conclusions of these models seem to be successful. As with other models, application of other indicators when evaluating companies e.g. is recommended (Elliott B. and Elliot J., 2008).

Strategic management is a set of instructions, decisions and activities which are essential to achieve competitive advantage and secure a higher than average returns of the company (Hitt, Ireland and Roskisson, 2011).

Strategic management is also a creative activity, because it is a science and also art to combine knowledge and intuition in level needed for the creation and retention of company's key competencies (Fotr, 2012).

Strategic management is according to the authors Wheelen and Hungr (2008) set of managerial decisions and actions that determine the long-term performance of the company. This includes analysis of environment (internal and external), strategy implementation, evaluation and control. Strategic management therefore emphasizes monitoring and evaluation of external opportunities and threats while taking in account corporate strengths and weaknesses. Strategic Management replaces the original concept of "trade policy".

Strategic management, according to many authors, should contribute to greater competitive advantage, above-average income and long-term business performance. Companies driven by strategic management should achieve a better rating by Taffler's model.

3. Methodics

This paper aims to map the possible relationships between the evaluation of companies according to the Taffler's Model and the strategic management in SMEs.

This article was supported by the GAJU 079/2013/S (principal investigator doc. Ing. Ladislav Rolínek, Ph.D.). It is based on a sample of 187 small and medium-sized enterprises of the Czech

Republic. In fact, 61 companies had to be filtered out because it was not possible to determine the value of the Taffler's Model due to incomplete information. Therefore the paper examines the possible relationship between the Taffler's Model and the strategic management in 126 small and medium-sized enterprises from the Czech Republic.

The surveyed enterprises operate in the region of South Bohemian. The data was collected through a questionnaire and face-to-face surveys, using mainly the quantitative research method supplemented by the qualitative method of in-depth interviews. Secondary data such as financial reports of surveyed companies were also used.

For this contribution were substantial the answers of enterprises about the existence of corporate strategy. Subsequently, for calculating the Taffler's Model secondary data were used in the form of financial statements.

Subsequently, according to the formula for the modified the Taffler's Model value of these outcomes for every enterprise was calculated. It was necessary to remove a sample of 61 companies, for which evaluation was impossible due to the absence of complete data.

The modified formula of the Taffler's Model (Růčková, 2008):

Equation 1

$$\left(0.53 \times \frac{EBT}{SD} + 0.13 \times \frac{CA}{ER} + 0.18 \times \frac{SD}{A} + 0.16 \times \frac{SR}{CBR}\right)$$

EBT profit before tax

SD short-term debts

CA current assets

ER external resources

A assets

CBR core business revenues

After calculating the value of the Taffler's Model enterprises were divided into three groups according to the intervals used for the evaluation of modified the Taffler's Model.

Vochozka (2011) enumerates the evaluation of modified the Taffler's Model:

Table 1: Evaluation of Modified the Taffler's Model

Result	Score
(0.3; ∞)	creditworthy company
<0.2; 0.3>	grey zone
(-∞; 0.2)	bankruptcy company

Source: Vochozka, 2011

Růčková (2008) used the same breakdown of enterprises according to the established value of the Taffler's Model. Rather than evaluating enterprises as creditworthy she states that the company has a small probability of bankruptcy and instead of bankruptcy enterprises says that the company has a high probability of bankruptcy.

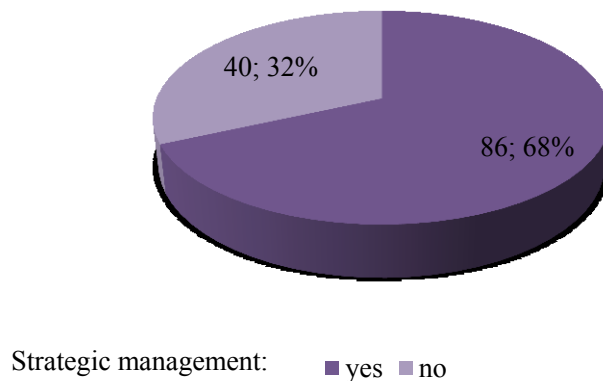
For each company of test sample was evaluated answer concerning the introduction of corporate strategy. Enterprises with formulation of the corporate strategy are considered as strategic management companies. Enterprises without a formulated corporate strategy are considered to be a non-strategic management companies.

To demonstrate the relationship between assessment according Taffler's Model and strategic management was used Mann – Whitney test. In statistic analyse were used real value of Taffler's Model, not a verbal rating.

4. Results and discussion

In the test sample there are 40 small and medium-sized enterprises (32 %) without strategic management, 86 small and medium-sized enterprises (68 %) are with strategic management. These values are shown in figure 1.

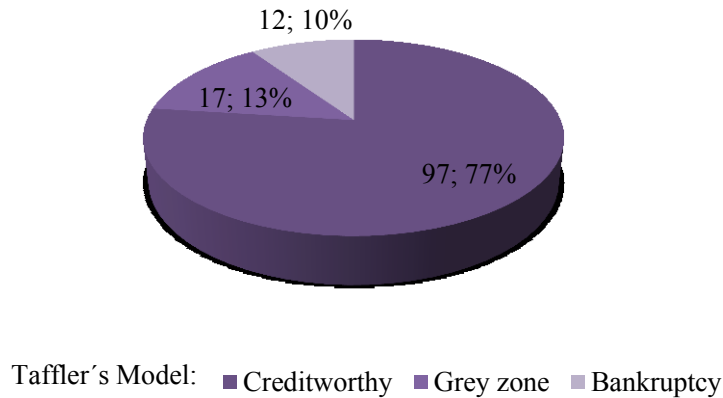
Figure 1: Strategic Management in Test Sample



Source: own

Taffler's Model ranks analysed companies into categories creditworthy, grey zone and bankruptcy enterprises. This ranks shown figure 2. In test sample are 12 companies (10 %) in the categories bankruptcy, 17 companies (13 %) are in grey zone and 97 small and medium-sized enterprises (77 %) are according to Taffler's Model creditworthy.

Figure 2: Taffler's Model in Test Sample



Source: own

Table 2 divides the test sample according to the implementation of strategic management and the value of Taffler's Model. In category of strategic management enterprises there are 79 % (68 companies) according to Taffler's Model creditworthy, 15 % (13 companies) are in grey zone and 6 % (5 companies) are in class bankruptcy. From 40 small and medium-sized enterprises without strategic management are 72 % (29 companies) creditworthy, 10 % (4 companies) in grey zone and 18 % (7 companies) are bankruptcy.

Table 2: Strategic Management and Taffler's Model

Taffler's Model	Strategic Management				Total	
	Yes		No			
Creditworthy	68	79 %	29	72 %	97	77 %
Grey zone	13	15 %	4	10 %	17	13 %
Bankruptcy	5	6 %	7	18 %	12	10 %
Total	86	100 %	40	100 %	126	100 %

Source: own

To determine compliance between strategically managed companies and companies without strategic management in achieving value according Taffler's Model was used Mann-Whitney test.

On the chosen significance level $\alpha = 0,05$ it was tested the null hypothesis $H_0 = x 0.50 - y 0.50 = 0$. For the null hypothesis the alternative hypothesis $H_A = non H_0$ (it is $x 0.50 > y 0.50$) was formulated.

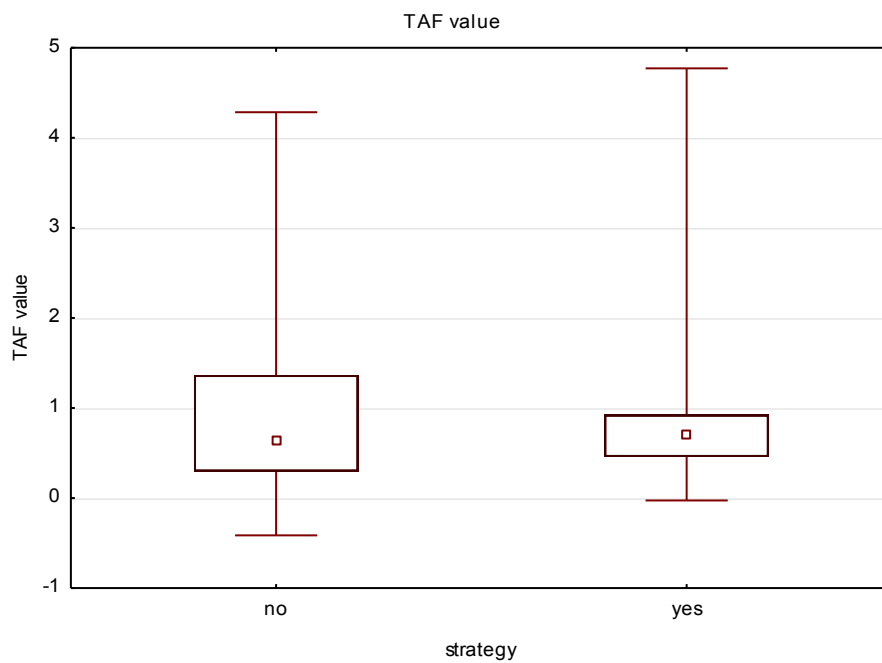
	sum - no	sum - yes	U	Z	p-value	N - no	N - yes
TAF value	2600.000	5401.000	1660.000	0.311836	0.755165	40	86

$$p - value = 0.755; \alpha = 0.05$$

$$0.755 > 0.05 \rightarrow p - value > \alpha$$

In this case final p-value is 0.755 is larger than chosen alpha, and we are not able to reject the null hypothesis on the significance level 0.05, same you can see in figure 3.

Figure 3: Results of Mann-Whitney test



Source: own

The results of statistic method suggest that the companies with strategic management in the Taffler's Model results are not significantly different from the companies without strategic management.

5. Conclusion

Contribution describes differences between enterprises with strategic management and without strategic management using Tafler's model. The survey was performed on 187 small and medium enterprises. Some of the enterprises had to be excluded from the survey because of missing data or information and therefore the sample was reduced to 126 SMEs.

Using statistical methods we were not able to prove significant difference between enterprises with strategic management and without strategic management. It is not possible to claim that application of strategic management influences the evaluation of the enterprise using the Taffler's model.

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