

IMPORTANCE AND ROLE OF INTERCONNECTION OF GROWTH AND DEVELOPMENT INDICATORS OF SMALL AND MEDIUM ENTERPRISES

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ABSTRACT

Very often we find strong expansion of small or medium-sized enterprises, which, in a very short time, achieve significant financial results. However, great number of these companies faces bankruptcy. There are different explanations for their failure, but the most common reason for their ultimate failure is in the disparity between the growth and development of the company. This paper aims to investigate whether there is indeed correlation between indicators of growth and indicators of development of small and medium enterprises.

Keywords: growth, development, small and medium enterprises

1. INTRODUCTION

Although, apparently, there is no difference between the word "growth" and the word "development", their semantic meaning differs in many aspects. Specifically, terms growth and development are often used in the literature as a synonyms, even though they have different semantic meaning. The concept of development implies a gradual transformation into more complex forms, in more modern state [7]. The concept of growth is manifested in the form of quantitative indicators, and their change in size indicates that something is increasing or decreasing.

Thus, the term "development" refers to qualitative indicators, and changes in those indicators point to enhancement of existing conditions, such as, in companies: product development, infrastructure development, technology development, human resource development, etc, while the concept of growth is expressed by quantitative indicators such as: gross revenue, net income, number of employees, etc. The quantitative changes in these indicators suggest to us weather the company grows or stagnates.

The successful growth of small and medium enterprises can be defined as a continuous business process in which positive changes are taking place in the following variables: annual gross revenue, net profit, production capacity, productivity, number of employees, the number of new customers, market share, the ability to utilize your own and others' resources for new product development, investments in a development of human resources, investment in facilities and infrastructure, the company's strategic orientation, organizational orientation of the company, structural organization of company [9].

Listed factors represent indicators of growth and development, but their increase is not guarantee of the growth of the company. The company needs to distinguish the wrong and good kind of the growth; any growth which, in a short period of time, results in overall increase in resource productivity of the company is a healthy growth [4].

Based on the above issues, in this paper we define the research hypothesis as follows: *The growth of small and medium enterprises, in the long run, must be simultaneously accompanied by the development of small and medium enterprises.* Respecting the principles of scientific methodology, we define the general goal of this study as follows: *To select the indicators of growth and indicators of development of small and medium-sized enterprises that must meet the representativeness of the sample of selected variables.* After defining the general goal, the operational objective is defined as follows: *To determine the existence of a correlation of indicators of growth and indicators of development of small and medium enterprises in the Federation of Bosnia and Herzegovina, by the empirical research.*

To check the defined hypotheses and fulfilling of defined goals of the research, appropriate scientific and research methods were used.

2. IDENTIFICATION OF INTERCONNECTION OF GROWTH AND DEVELOPMENT INDICATORS OF SME IN B&H

Although the literature lists a variety of indicators that point to the growth and development of small and medium enterprises, in this paper we opted for the following indicators:

- X_1 – growth in total turnover in the last three years;
- X_2 – growth rate of gross profit compared to the turnover in the last three years;
- X_3 – rate of change in number of employees over the last three years;
- X_4 – funds invested in equipment and technology in relation to the achieved yearly turnover in the last three years;
- X_5 – funds invested in the construction of buildings and infrastructure in relation to the yearly turnover in the last three years;
- X_6 – funds invested in the development of human resources in relation to the yearly turnover in the last three years;
- X_7 – own and borrowed funds that may be used for new product development.

To check the representativeness of the selected indicators, we will check the existence of a statistically significant correlation between the indicators which point to growth of SMEs in the Federation of B&H and indicators showing the development of SMEs in the Federation B&H. For a sample of $N = 30$ were selected those companies that have recorded significant growth in 2006th, 2007th and 2008th year.

Table 1 presents the results of correlation analysis with a significance level of $p < 0.05$.

Table 1. Correlation of indicators of growth and development of SMEs in the FB&iH

Indicators of SME growth	N=30	Indicators of SME development			
		X_4	X_5	X_6	X_7
X_1	r	-,335	-,055	-,292	-,090
	Sig.2-tailed	,023	,772	,118	,637
X_2	r	,401	,156	-,045	-,554
	Sig.2-tailed	,028	,409	,811	,002
X_3	r	,098	,029	,077	-,397
	Sig.2-tailed	,606	,880	,687	,030

- Based on the indicators of correlation, presented in Table 1, we see that there is a statistically significant positive association between indicators of X_2 and X_4 indicator, because the value of $p < 0.05$. With this we conclude that the increase of the gross profit results in the increase of the funds invested in equipment and technology
- There is a statistically significant negative correlation between the indicator X_2 and indicators X_7 , because the value of $p < 0.05$, which suggests that with the increase of the gross profit, companies hire less someone else's funds for development of new products.

- There is a statistically significant negative correlation between the indicators X_3 and X_7 , because the value of $p < 0.05$. This negative correlation suggests that companies with less change (increase / decrease) of the number of employees are engaging more of their own and others' resources to develop new products.

Identified correlations between indicators of growth and development of small and medium enterprises in the Federation of B&H, clearly indicate the logical causal relationship between indicators, which confirms the representativeness of the selected indicators.

3. RELATIONSHIP BETWEEN THE BASIC FEATURES OF SUCCESSFUL SMALL AND MEDIUM ENTERPRISES AND THEIR GROWTH AND DEVELOPMENT INDICATORS

To identify the relationship between the basic characteristics of SMEs and their growth indicators, 30 companies, that recorded significant growth in observed period, are selected for the sample. Table 2 presents the results of correlation analysis.

Table 2. Relationship between the basic characteristics of companies and indicators of growth of the companies.

Characteristics of companies	N=30	Indicators of growth and development of companies						
		X_1	X_2	X_3	X_4	X_5	X_6	X_7
A1	r	-,080	,420	,118	,172	-,062	,091	-,370
	2-tailed	,673	,021	,536	,364	,744	,631	,044
A4	r	-,266	-,256	,165	-,156	-,266	-,061	,258
	2-tailed	,156	,172	,384	,412	,156	,749	,169
A5	r	,010	-,409	-,224	-,071	-,103	-,018	,297
	2-tailed	,960	,025	,234	,708	,590	,925	,111
A6	r	,387	-,248	-,277	-,070	-,061	-,226	,358
	2-tailed	,035	,186	,139	,714	,749	,229	,052
A7	r	-,272	,015	-,027	-,229	,000	,214	,017
	2-tailed	,145	,938	,889	,223	,999	,257	,930
A8	r	,033	,211	,284	,204	-,044	-,035	-,312
	2-tailed	,863	,263	,129	,279	,817	,856	,094
A9	r	-,142	-,090	-,135	-,087	,080	,078	,124
	2-tailed	,453	,634	,476	,648	,674	,681	,514
A13	r	-,157	,081	,120	-,065	,069	,107	-,074
	2-tailed	,408	,671	,526	,732	,719	,573	,699

- The analysis of the indicators in Table 2 indicates statistically significant positive correlation between the variables A1 - The year of the company establishment, and X_2 - growth rate of gross profit in relation to the gross turnover in the last three years, because the value of $p < 0.05$. Based on this it is concluded that older companies generate higher gross profit as compared to the younger companies
- Variable A1 – The year of the company establishment, has a statistically significant negative correlation with the variable X_7 - Engagement of its own and others' resources to develop new products, because the value of $p < 0.05$. Based on this it is concluded that younger companies engage more of its own and others' resources to develop new products
- Variable A5 - Number of employees, has a statistically significant negative correlation with the variable X_2 - growth rate of gross profit in relation to the gross turnover in the last three years, because the value of $p < 0.05$. This indicator refers us to the conclusion that companies with fewer employees generate higher gross profit.

4. CONCLUSION

Selected indicators of growth and development of small and medium enterprises are representative variables, based on which the conclusions may be drawn. The basic hypothesis of this paper assumes that there is a reciprocal relationship between indicators of growth and indicators of development of small and medium enterprises. Based on the selected sample N30 of successful small and medium enterprises, the statistically significant correlation of the analyzed indicators can clearly be observed.

By applying the correlation analysis it can be clearly observed that successful small and medium enterprises in this sample are proportionally following the investment in equipment and technology by increasing the realized gross profit. Also, the results of correlation analysis point to the conclusion that a higher gross profit of the companies has a negative correlation with the number of employees. The companies with fewer employees generate higher gross profit, which brings us to the conclusion that such companies are dedicated to development of human resources, so employees, at the end, by their competences increase productivity, resulting in a higher gross income, in relation to the companies that have higher number of employees and lower productivity.

The growth of SMEs require a complex activities within the company, which focus on intensive formation of new organizational structures, defining new strategic direction of the company, the selection and development of human resources, all with the aim of establishing a balance between growth and development of the company.

5. REFERENCES

- [1] Churchill, C. N. Lewis, L. V.: The Five Stages of Small Business Growth, Harvard Business Review, May-June 1983.
- [2] Churchill, N. C. Lewis, V. L.:The five stages of small business growth, Harvard Business Review, Boston, 61. 1983.
- [3] Clerc, Ph.:Business Intelligence as a Competitive Tool, SME Forum: Rapid Growth and Competitiveness through Technology, Helsinki, Septembar 16-17, 2000.
- [4] Drucker, F. P.: The Essential Drucker, Adizes, Novi Sad, 2006.
- [5] Galbraith, J.:The Stages of Growth, Journal of Business Strategy, Boston, 3. 1990.
- [6] Gibb, A.:The Competitiveness Challenge to the Development of SMEs and their Advisors, SME Forum: Rapid Growth and Competitiveness through Technology, Helsinki, Septembar 16-17, 2000.
- [7] Kitić, S. et al.:The Serbo-Croatian Literary Language Dictionary, Matica srpska, Novi Sad, 1973.
- [8] Levy, M. Powell, Ph.:Strategies for Growth in SMEs, Elsevier, 2005.
- [9] Isaković, S.: The Applied Strategies and Models of Growth of Small and Medium-Sized Enterprises, 7th Research/Expert Conference With International Participation, 2011.