BUSINESS GROWTH MANAGEMENT IN REPUBLIC OF SRPSKA

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ABSTRACT

The research methodology starts from the calculation of the coefficient for each individual company in order to obtain the indicators by calculating the arithmetic mean, median and quartile. As econometric stochastic models have little value for predicting or explaining the growth process at the level of individual companies, the central subject of interest is understanding the growth process at the level of an individual company. The sustainable growth rate of a company depends on the activity of the company. Numerous factors can affect the growth of a company, but the influence of individual factors on the growth of a company is rarely significant and permanent. The results of the research indicate a very asymmetric distribution of the size of enterprises, with a small number of large enterprises and a large number of small enterprises. The model of sustainable growth is an effective tool for financial planning and directing business policy towards stimulating growth in certain industries.

1. INTRODUCTION

Growth management is a specific problem of corporate governance. Most managers view growth as a variable to be maximized. However, maximizing growth is not always a positive strategy and can often lead to bankruptcy.

The growth of the company is a process of continuous positive business activities of the company, which is observed from different aspects such as: financial,

strategic, structural and organizational aspects (Wichkam, 2006). Although the company growth is viewed from the aspect of the variability of these factors, factors such as strategic growth, structural growth and organizational growth, in fact, represent the development of a company. The terms "growth" and "development" are often identified in the literature as one term, although they have different semantic meanings. The company growth is manifested through quantitative indicators, while the company development is manifested through qualitative indicators, which, together with their changes, indicate the improvement of the existing situation (Isaković, 2015).

Companies go through different phases of the business cycle in their development. The first phase is the start-up phase in which funds are used to develop the product and stabilize its sales in the market. In the next, the second phase, the company achieves significant growth and operates at a profit, but to maintain the growth it usually needs additional funds (borrowed or equity). The third phase of the life cycle saturation begins when the company's growth begins to decline, i.e. when the company does not invest in projects that would provide growth. The last phase is a decline: the company is on the verge of profitability, it generates cash which is reinvested internally, i.e. in the company itself, and it suffers a decline in sales. In the last two phases companies use managerial skills to find profitable investment alternatives for new products or invest in the acquisition (takeover) of other companies that are still in the growth phase.

Initial research on company growth was based on the neoclassical theory of optimal company size, which involves maximizing profits. A significant contribution to the theory of enterprise growth is Penrose's theory of growth, which sees enterprise growth as a learning process through the work of managers and other employees. Managers become more productive over time, gain new knowledge and become more innovative, and focus on business expansion. Managers who are focused on the growth generate higher costs than expected to achieve the growth. Firms that grow fast have higher operating costs than those that do not have rapid growth. This is called the Penrose effect (Coad, 2007). The question is what are the factors that affect the company growth? Most research is based on the analysis of the company size and age and their impact on growth. According to Gibrat's law or the law of proportional effect, the growth rate of a company is independent of the company size in the initial period (Gibrat, 1931).

The hypothesis that the growth of a company is independent of its size has been tested empirically several times and most tests have not confirmed its accuracy. In short, empirical research indicates the existence of a negative correlation between the company size and the company growth, with a tendency to reduce the

size variance as the company size grows. In other words, small businesses as a whole have a higher but more chaotic rate of war (Coad, 2007). In addition to the company size, there are a number of other indicators that affect the growth of the company. Indicators can be: at the level of companies (innovation, profitability, productivity, etc.), at the level of industry (degree of concentration, market size,) and macroeconomic indicators (GDP growth, employment, inflation, tax policy). There are a large number of indicators that can show the company growth. The most common ways to measure growth are shown in the following table (Gruenwald, 2015).

Table 1. Methods of measuring enterprise growth

Indicators	Authors
Income, Sales growth	Mishina et al. (2004); Shaw, Duffy, Johnson, and Lockhart (2005); Gardner (2005); Simsek, Veiga, Lubatkin, and Dino (2005) Zatzick and Iverson (2006); Sine, Mitsuhashi and Kirsch (2006); Arthaud-Day et al. (2006); Moreno and Casillas (2007); Holzl (2009); Anaydike-Danes et al. (2009); Evangelista and Vezzani, (2010); Cassia and Minola (2012); Murmann et al. (2014); Beers and Zand, (2014); Coad et al. (2014)
Operating profit, Net profit, EBITDA	Shaw, Gupta & Delery (2005);
Market share	-
Employment growth	Shaw, Duffy, Johnson, and Lockhart (2005); Holzl (2009); Murmann et al. (2014); Anaydike-Danes et al.(2009); Carz Nitzki and Delanote (2013); Barbaro et al. (2014)
Cover point	-
Productivity	Boer and During (2001); OECD (2006); Rocchina-Barrachina et al. (2010); Urgal et al. (2013)
ROE	Shaw, Gupta and Delery (2005); Westphal and Bednnar (2005)
ROI, ROIC	Luo and Chung (2005); Tan and Tan (2005)
ROA	Miller and Eden (2006); Arthaud-Day, Certo, Dalton and Dalton (2006); Sanders and Tuschke (2007); Goerzen and Beamish (2005)
TSR	Kumar (2005); Johnson, Ellstrand, Dalton and Dalton (2005)
EVA	-

Source: Gruenwald, R.K. (2015): Measuring Growth of the Firm: Theoretical Considerations, Cracow University of Economics, Poland

The aim of this paper is to explain and describe scientifically the movement of the growth rate of enterprises in Republic of Srpska, and to define the methodology for measuring the balanced growth rate. Also, the aim of the paper is to describe the movement of the growth rate of enterprises in different industries.

The research hypothesis we set is: "The growth rate of a company depends on the industry of the company."

The growth of the company means the growth of the company's income. The growth of sales volume requires greater commitment of funds (growth of assets) for which sources must be provided (growth of liabilities). Retained earnings, as well as new loans or bond issues, can generate money, but only to a limited extent. If a company does not want to issue shares and sell them, borrowed capital and internally generated resources (retained earnings) are the growth limit.

2. MATERIAL AND METHODS

The two relevant sources of financing assets are equity and borrowed capital. In the context of this research, we will address the issue of growth sustainability (balanced growth). The growth rate of liabilities and the growth rate of equity are the basic growth limits. The borrowing capacity of the company is limited by creditworthiness (ability), which implies that the basic growth limit is the one that refers to the possibility of growth from equity.

In order to explain the sustainable growth of the company, we will start from the following assumptions:

a) the company strives to grow as much as its market opportunities allow,
b) business owners do not want to issue and sell a new issue of shares,
c) the company has a desired capital structure and defined dividend policy.

The research methodology goes through the following steps. The achieved growth rate is calculated for each company. The realized growth rate of the company is calculated as the ratio of the increase in the value of the company's capital in relation to the capital of the previous year. The sustainable growth rate of a company[1] can be calculated using the following formula:

$$g = P \times R \times A \times T,$$ (Stowe, 2000)

where:

g - company growth rate,

P - profit margin or net profit rate,

R - retained earnings rate,

A - turnover ratio of total assets,

1 Balanced growth rate (g) is the growth rate at which the financial flexibility of the company is not impaired.

T - the ratio of total assets to equity.

In the previous formula PAT (profit margin, total assets turnover ratio and equity multiplier) essentially represents ROE (return on equity).

Based on the above, we can derive the following growth formula:

$$\mathbf{g = R \times ROE},$$

where R is the rate of retained earnings and ROE is the rate of return on its own funds.

In essence, the variable R denotes the financial policy of management in relation to dividends and retained earnings, while ROE is an indicator of business performance of the company. Within ROE, another indicator explains the financial policy of the company and that is the multiplier of equity. Also, one of the ways we can write down the formula for sustainable growth is:

$$g = R \times T \times ROA,$$

where:

R - retained earnings indicator,

T - equity multiplier,

ROA (return on assets) - operating performance of the company, i.e. the rate of return on total assets.

The growth rate of the company can be higher or lower than g, or the rate of sustainable growth of the company. The retained earnings ratio R = g / ROE was calculated for each company that operated with a profit assuming growth sustainability. By determining the relationship between the investment decision on optimal growth and dividend payment policy, the Higgins model of sustainable growth was expanded with a model that optimizes the sustainable growth rate and the dividend payment ratio. (Chen et al., 2013). The indicator is calculated for each company. Companies are divided into three segments, small, medium and large. The obtained values were then sorted from the highest to the lowest value, and the formed list was then divided into four equal groups on the basis of the first quartile, the median and the third quartile. An overview is given in the following chart.

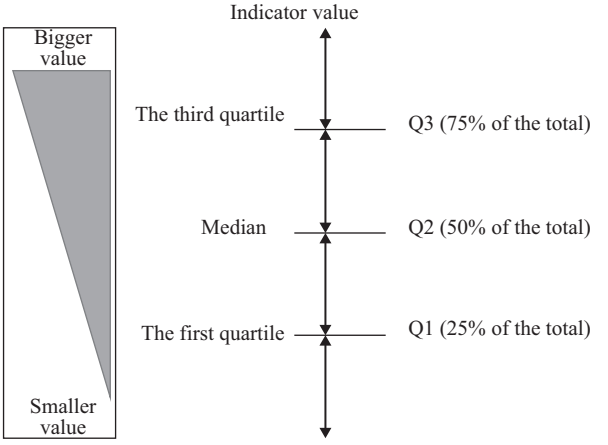

Figure 1. Graphic display of the list

Source: Authors

There are several reasons why medians and quartiles are used instead of the arithmetic mean. Median and quartiles eliminate the influence of extremely large and extremely small values. They also give a more accurate picture of the pointer than the ordinary arithmetic mean. Between the first and third quarters there are 50% of the observed companies (Vučenović, 2017).

The research was performed on the database of financial statements of the companies from Republika Srpska in 2017 and 2018, with the analysis of the companies involved in a group of small, medium and large companies, or eliminated by the micro enterprises that are defined as such in the Law on Accounting and Auditing of Republika Srpska. After that, the company was selected according to the growth in the following categories: assets, capital and total company revenues. The analysis included 795 companies from Republika Srpska.

Out of the observed 795 companies, 309 companies are from the wholesale and retail trade industry, 26% are from the processing industry, while other activities do not exceed 10% of the total number of observed companies.

For further analysis, the companies were divided into three groups. The first group of companies are those with a capital of up to 1.000.000 BAM, the second group of companies are those companies with a capital between 1.000.000 BAM and 5.000.000 BAM, while the third group includes the companies with a capital of over 5.000.000 BAM. The largest number of companies belongs to the first group of companies, i.e. 486 companies, the second group consists of 213, while the third group of companies includes 96 companies. In the observed sample, we analysed the optimal level of company growth with certain assumptions, and that

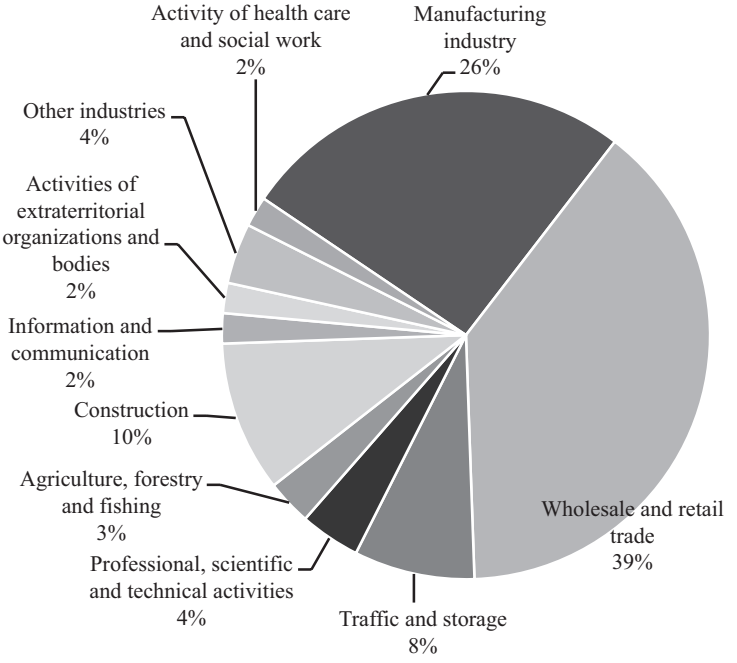

Figure 2. The structure of enterprises in the sample by the type of industry

Source: Authors

is the debt-to-equity ratio of at least 2:1, which means the share of capital should not be less than 33%, so that the company retains 70% of last year's net profit.

While comparing data, we used measures of central tendency: arithmetic mean, median and quartiles. The use of the median is more in line with the set description, because it eliminates the effects of extreme values on the whole set. The research methodology was based on the calculation of the coefficient for each individual company in order to obtain the arithmetic mean, median and quartile to obtain the relevant indicators. As econometric stochastic models have little value for predicting or explaining the growth process at the level of individual companies, the central subject of interest is understanding the growth process at the level of an individual company. Empirical data indicate a very asymmetric size distribution of enterprises, with a small number of large enterprises and a large number of smaller enterprises.

This distribution of enterprise size can be explained by stochastic processes in which variables the size of enterprises and the result of cumulative random shocks over time are observed. The distribution of a company by size is the result of random processes.

Table 2. Comparative presentation of the share of capital in the total liabilities of the company shown by the company size

Companies	1QUKP18	1QUKP17	MUKP18	MUKP17	ASUKP 18	ASUKP 17	3QUKP18	3QUKP17
I group of companies with up to one million BAM of capital	20.46%	16.91%	37.90%	35.21%	42.90%	40.49%	61.63%	58.61%
II group of companies from one million to 5 million BAM of capital	45.78%	45.33%	68.74%	65.97%	63.35%	62.12%	81.65%	82.01%
III group of companies with over 5 million BAM of capital	58.98%	55.71%	74.42%	72.82%	70.59%	69.73%	86.80%	88.19%
Grand Total	28.22%	24.79%	51.22%	49.97%	51.72%	49.81%	73.89%	73.03%

Source: Author's calculations 2

When we look at all comparative data in the previous table, through all measures of the central tendency, we notice that there is an increase in the share of capital of the observed companies in 2018 compared to 2017. On average, companies meet the requirement of the total amount of capital which is above 33%. If we look at the groups of companies we can conclude that the largest share of capital in sources of financing belongs to the companies from group III or companies with over 5 million capital.

The highest average rate and the highest median share of capital in the total liabilities of the company have companies from the hospitality industry, followed by finance and insurance, while the lowest average participation rate have companies from the field of education, agriculture, forestry and fishing, and the lowest median have companies from the field of transport and storage. The highest growth rate of the median share in capital in total liabilities is recorded by the enterprises engaged in accommodation and catering, hotel and catering, while the highest rate of median share in capital participation in liabilities of the company is recorded by the companies engaged in mining and quarrying.

2 Legend labels: 1QUKP18 – the first quartile of the share of capital in liabilities in 2018, 1QUKP17- the first quartile of the share of capital in liabilities in 2017, MUKP18 - median equity participation in liabilities in 2018, MUKP17 - median equity participation in liabilities in 2017, ASUKP 18 – arithmetic mean of equity participation in liabilities in 2018, ASUKP 17 – arithmetic mean of equity participation in liabilities in 2017, 3QUKP18 – the third quartile of equity participation in liabilities in 2018, 3QUKP17 – the third quartile of equity participation in liabilities in 2017.

Table 3. Comparative presentation of the share of capital in the total liabilities of the company shown by industries

Industries	1QUKP 18	1QUKP 17	MUKP 18	MUKP 17	ASUKP 18	ASUKP 17	3QUKP 18	3QUKP 17
Administrative and support service	25.33%	17.62%	42.67%	33.48%	46.24%	41.60%	59.06%	59.10%
Activities of extraterritorial organizations and bodies	64.97%	60.59%	71.29%	71.26%	64.28%	65.53%	74.71%	74.68%
Accommodation, food preparation and serving activities	71.32%	55.23%	91.54%	77.51%	83.80%	66.19%	94.38%	91.62%
Health and social work	38.31%	31.20%	57.68%	62.39%	59.15%	54.86%	81.19%	79.99%
Financial companies and insurance industry	78.57%	67.85%	85.13%	85.60%	78.82%	76.43%	89.78%	88.38%
Construction industry	34.28%	31.91%	50.72%	50.13%	51.84%	51.29%	75.28%	76.04%
Information and communication	35.21%	39.47%	69.20%	64.67%	61.23%	58.91%	83.68%	76.84%
Public administration and defense; compulsory social insurance	65.45%	65.51%	76.65%	76.52%	76.65%	76.52%	87.85%	87.52%
Education	40.41%	33.20%	40.41%	33.20%	40.41%	33.20%	40.41%	33.20%
Agriculture, forestry and fishing	10.53%	5.43%	42.86%	47.38%	44.14%	44.40%	72.53%	71.38%
Real estate business	14.67%	17.89%	52.60%	52.74%	53.20%	53.04%	92.99%	93.03%
Manufacturing industry	28.44%	24.75%	49.49%	46.02%	49.45%	47.00%	70.36%	69.25%
Traffic and storage	28.72%	27.27%	39.10%	38.51%	45.05%	45.28%	61.60%	65.81%
Professional, scientific and technical activites	38.24%	32.27%	60.22%	58.03%	55.91%	54.41%	80.08%	77.51%
Wholesale and retail trade	25.55%	21.46%	50.34%	50.22%	52.11%	49.90%	73.68%	72.90%
Mining and quarrying	42.70%	36.87%	44.22%	55.09%	51.21%	51.48%	80.15%	77.30%
Total	28.22%	24.79%	51.22%	49.97%	51.72%	49.81%	73.89%	73.03%

Source: Author's calculations

Based on the research methodology previously defined for each company, a sustainable growth rate was calculated for 2018. Sustainable growth rates by the group of companies are shown in the following table.

Table 4. Sustainable growth rates of enterprises by the groups of enterprises[3]

Companies	1QOSR	MOSR	ASOSR	3QOSR
I group of companies with up to one million BAM of capital	1.87%	4.82%	11.71%	10.38%
II group of companies from one million to 5 million BAM of capital	2.18%	5.03%	6.70%	8.62%
III group of companies with over 5 million BAM of capital	2.14%	4.08%	5.15%	7.34%
Grand Total	1.93%	4.77%	9.58%	9.35%

Source: Author's calculations

By analyzing the data from the previous table, we conclude that the median is the best way to show a sustainable growth rate. The arithmetic mean is influenced by extreme data, which is seen in the fact that the third quartile is smaller than the arithmetic mean. The total median growth rate for all companies is 4.77%, with companies from the second group having the highest growth rate.

Table 5. Sustainable enterprise growth rates by enterprise industries

Industries	1QOSR	MOSR	ASOSR	3QOSR
Administrative and support service	7.88%	16.99%	16.53%	24.29%
Activities of extraterritorial organizations and bodies	0.69%	1.65%	2.57%	4.01%
Accommodation, food preparation and serving activities	1.72%	7.21%	19.85%	15.74%
Health and social work	5.39%	11.72%	97.12%	26.41%
Financial companies and insurance industry	0.48%	3.53%	10.00%	13.14%
Construction industry	0.81%	4.23%	8.25%	12.60%
Information and communication	1.25%	7.52%	15.82%	25.48%
Public administration and defense; compulsory social insurance	0.55%	1.11%	1.11%	1.66%
Education	1.95%	1.95%	1.95%	1.95%
Agriculture, forestry and fishing	0.28%	1.25%	4.94%	4.71%
Real estate business	1.05%	2.27%	3.07%	4.56%
Manufacturing industry	2.05%	4.49%	6.43%	8.16%
Traffic and storage	1.75%	3.22%	5.53%	6.63%

3 Legend labels: 1QOSR - the first quartile sustainable growth rate, MOSR - median quartile sustainable growth rate, ASOSR - arithmetic mean sustainable growth rate, 3QOSR – the third quartile of sustainable growth rates.

Industries	1QOSR	MOSR	ASOSR	3QOSR
Professional, scientific and technical activites	3.70%	10.37%	17.07%	26.12%
Wholesale and retail trade	2.54%	5.53%	7.97%	8.62%
Mining and quarrying	0.33%	2.50%	4.90%	4.21%
Total	1.93%	4.77%	9.58%	9.35%

Source: Author's calculations

The highest median sustainable growth rate by activity of enterprises is in the activity of Administrative and support service activities with 16.99%, while the lowest median sustainable growth rate is in the activity of Public administration and defence and compulsory social security with 1.11%.

Table 6. Comparative data on the sustainable growth rate of enterprises and growth indicators of income, assets and capital[4]

Companies	ASOSR	MOSR	ASRP	MSRP	ASRA	MSRA	ASRK	MSRK
I group of companies with up to one million BAM of capital	11.71%	4.82%	315.56%	26.34%	93.05%	27.51%	76.30%	33.82%
II group of companies from one million to 5 million BAM of capital	6.70%	5.03%	33.76%	16.37%	25.90%	12.92%	34.76%	16.58%
III group of companies with over 5 million BAM of capital	5.15%	4.08%	22.36%	13.96%	81.20%	10.44%	19.41%	12.37%
Grand Total	9.58%	4.77%	204.65%	20.40%	73.62%	20.15%	58.30%	24.47%

Source: Author's calculations

The previous table shows the arithmetic mean and sustainable growth rate of the company compared to the indicators of revenue growth, capital growth and asset growth. Further analysis shows that the impact on the arithmetic mean of the indicators of growth of income, capital and assets have extreme indicators and the data obtained are not adequate for analysis. If we compare the medians of optimal growth rates with the medians of growth of income, capital and assets, we see that companies from the first group of companies, according to these indicators, are growing several times faster than what is optimal. As the size of the company increases, the difference between these indicators and the optimal growth rate is smaller, although in all groups of medians the sustainable growth rate is lower than the median growth rate of income, capital and assets.

4 Legend of labels: ASOSR - arithmetic mean of sustainable growth rate, MOSR - median quartile sustainable growth rate, ASRP-arithmetic mean of income growth, MSRP median income growth, ASRA arithmetic mean of asset growth, MSRA median of asset growth, ASRK arithmetic mean of capital growth, MSRK median capital growth.

Table 7. Comparative data on sustainable growth rates of enterprises and indicators of growth of income, assets and capital by industries of enterprises

Industries	ASOSR	MOSR	ASRP	MSRP	ASRA	MSRA	ASRK	MSRK
Administrative and support service	16.53%	16.99%	150.26%	137.36%	81.24%	39.32%	136.14%	86.78%
Activities of extraterritorial organizations and bodies	2.57%	1.65%	67.60%	14.04%	44.01%	14.40%	21.24%	12.23%
Accommodation, food preparation and serving activities	19.85%	7.21%	81.44%	14.06%	1085.63%	21.93%	6.42%	4.44%
Health and social work	97.12%	11.72%	23.03%	20.34%	48.51%	39.28%	40.23%	29.77%
Financial companies and insurance industry	10.00%	3.53%	47.57%	30.92%	24.92%	6.24%	29.58%	6.70%
Construction industry	8.25%	4.23%	1236.85%	34.83%	139.71%	25.72%	70.30%	29.75%
Information and communication	15.82%	7.52%	100.87%	48.75%	59.72%	19.80%	87.14%	33.63%
Public administration and defense; compulsory social insurance	1.11%	1.11%	6.49%	6.49%	7.79%	7.79%	7.80%	7.80%
Education	1.95%	1.95%	8.49%	8.49%	50.69%	50.69%	83.41%	83.41%
Agriculture, forestry and fishing	4.94%	1.25%	92.93%	22.28%	61.91%	23.60%	84.27%	25.26%
Real estate business	3.07%	2.27%	168.74%	61.15%	71.35%	39.20%	31.80%	8.49%
Manufacturing industry	6.43%	4.49%	46.48%	24.52%	40.58%	20.72%	61.14%	24.09%
Traffic and storage	5.53%	3.22%	174.52%	17.88%	52.36%	14.11%	34.70%	16.60%
Professional, scientific and technical activites	17.07%	10.37%	236.00%	47.93%	279.15%	24.15%	93.72%	41.70%
Wholesale and retail trade	7.97%	5.53%	97.73%	17.16%	47.34%	19.87%	54.47%	24.59%
Mining and quarrying	4.90%	2.50%	31.18%	28.19%	12.31%	7.58%	14.60%	14.00%
Total	9.58%	4.77%	204.65%	20.40%	73.62%	20.15%	58.30%	24.47%

Source: Author's calculations

The previous table shows comparative data on the sustainable growth rate of the company and indicators of growth of income, assets and capital by activities of the company. All growth indicators of income, capital and asset categories are growing faster than the growth indicators of the sustainable growth rate. The largest differences in growth rates are in the activities of administrative and support service activities, and real estate activities, while the smallest difference in the rates is in public administration and defense.

Table 8. Comparative data on sustainable growth rates and actual growth rates by groups of companies[5]

Companies	ASOSR	ASSSR	MOSR	MSSR	1QOSR	1QSSR	3QOSR	3QSSR
I group of companies with up to one million BAM of capital	11.71%	52.47%	4.82%	6.11%	1.87%	1.18%	10.38%	61.38%
II group of companies from one million to 5 million BAM of capital	6.70%	7.17%	5.03%	0.82%	2.18%	0.11%	8.62%	30.44%
III group of companies with over 5 million BAM of capital	5.15%	2.72%	4.08%	0.29%	2.14%	0.03%	7.34%	25.43%
Grand Total	9.58%	34.32%	4.77%	2.72%	1.93%	0.41%	9.35%	44.42%

Source: Author's calculations

The previous table compares the sustainable growth rate with the actual growth rate of the company according to the measures of the central tendency. The data shown by the arithmetic mean as in the previous analyzes are not relevant because extreme values have too much influence. If we look at the median of the optimal growth rate and the median of the real growth rate, we see that companies grow within a sustainable growth rate. Companies in the first group grow faster than sustainable growth, while companies in the second and third groups grow slower than sustainable growth.

5 Legend: ASOSR - arithmetic mean of sustainable growth rate, ASSSR - arithmetic mean of real growth rate, MOSR - median quartile of sustainable growth rate, MSSR - median quartile of real growth rate, 1QOSR - first quartile of sustainable growth rate, 1QSSR - first quartile of real growth rate 3QOSR - third quartile of sustainable growth rate, 3QSSR - third quartile of actual growth rate.

Table 9. Comparative data on sustainable growth rates and actual growth rates by enterprise activities

Industries	ASOSR	ASSSR	MOSR	MSSR	1QOSR	1QSSR	3QOSR	3QSSR
Administrative and support service	16.53%	78.06%	16.99%	16.22%	7.88%	11.21%	24.29%	111.05%
Activities of extraterritorial organizations and bodies	2.57%	1.06%	1.65%	0.54%	0.69%	0.04%	4.01%	32.63%
Accommodation, food preparation and serving activities	19.85%	0.67%	7.21%	0.05%	1.72%	0.01%	15.74%	212.48%
Health and social work	97.12%	524.96%	11,.72%	5.70%	5.39%	0.38%	26.41%	56.91%
Financial companies and insurance industry	10.00%	7.97%	3.53%	0.66%	0.48%	0.01%	13.14%	38.06%
Construction industry	8.25%	28.64%	4.23%	6.81%	0.81%	0.50%	12.60%	64.59%
Information and communication	15.82%	44.24%	7.52%	4.81%	1.25%	0.34%	25.48%	47.93%
Public administration and defense; compulsory social insurance	1.11%	0.22%	1.11%	0.22%	0.55%	0.11%	1.66%	9.29%
Education	1.95%	29.86%	1.95%	29.86%	1.95%	29.86%	1.95%	50.69%
Agriculture, forestry and fishing	4.94%	38.76%	1.25%	1.80%	0.28%	0.26%	4.71%	46.88%
Real estate business	3.07%	2.85%	2.27%	0.53%	1.05%	0.06%	4.56%	113.89%
Manufacturing industry	6.43%	25.34%	4.49%	2.83%	2.05%	0.38%	8.16%	47.27%
Traffic and storage	5.53%	11.90%	3.22%	1.18%	1.75%	0.26%	6.63%	32.85%
Professional, scientific and technical activites	17.07%	28.82%	10.37%	5.84%	3.70%	2.05%	26.12%	69.45%
Wholesale and retail trade	7.97%	25.34%	5.53%	2.57%	2.54%	0.51%	8.62%	39.90%
Mining and quarrying	4.90%	2.07%	2.50%	3.22%	0.33%	0.31%	4.21%	9.48%
Total	9.58%	34.32%	4.77%	2.72%	1.93%	0.41%	9.35%	44.42%

Source: Author's calculations

The previous table compares the sustainable growth rate with the actual growth rate of the company according to the measures of the central tendency. If we look at the median sustainable and real growth rates, we see that construction and education activities have a larger deviation of the real growth rate from the optimal growth rate, while other activities grow at a rate that is lower than the sustainable growth rate or slightly higher than sustainable.

3. DISCUSSION

Enterprise growth can be expressed in absolute or relative values. Relative indicators are mostly used by small enterprises, while growth expressed in absolute indicators is preferred by large enterprises. The disadvantages of the relative and absolute indicator are reflected in the fact that faster relative growth of the company means a better position in the market. In contrast, the company can achieve growth expressed in absolute values, while reducing its market share. According to neoclassical theory, assuming perfect competition in the market, the company grows until it reaches a minimum point on the average cost curve. Thus, the growth of enterprise income is an asymptotically decreasing function of the relative size of the enterprise within the activity or market in which it competes, while in the same market, smaller enterprises grow faster than large enterprises (Lehtoranta, 2010.)

The influential theory of enterprise growth is the one according to which the growth of an enterprise is proportional to the speed at which it acquires or accepts and applies new technological, organizational and managerial knowledge. Innovation activities are proving to be the key to the growth of small businesses (Hassan and Hart, 2016). However, complications associated with empirical testing of this theory and its extensions, due to the lack of reliable quantitative measures of relevant enterprise characteristics, have led to this enterprise growth theory having a greater impact on research related to strategic management and enterprise competitiveness than to research dealing with their growth.

In practice, enterprise growth rates have a pronounced stochastic trend (the size of an enterprise follows a "random walk" model), and the apparent relationships between growth rates between different enterprises are temporary and unpredictable. Therefore, the new generation theoretical models, which are still in development, accept the stochastic nature of enterprise growth rates and concentrate on explaining the impact of stochastic "jumps" in their time series. The question of the shape and stability of the empirical distribution of enterprise growth rates at different stages of the economic cycle is also not trivial, given that the expect-

ed value and curvature of this distribution are pro-cyclical, while the standard deviation and asymmetry is non-cyclical. The statistical relationship between the size of an enterprise and the standard deviation of its growth rate from the arithmetic mean over time is in practice negative. This means that the growth rates of a larger company are less volatile over time than the growth rates of a comparably smaller company and that the autocorrelations of the growth rates of individual companies are determined by the size of that company. The empirical rule is that the autocorrelation of growth rates is positive for larger companies and negative for smaller companies. Furthermore, it has been shown that the autocorrelation of a company's growth rate also depends on the realization of the company's growth rate in previous periods. This suggests the importance of including macroeconomic variables among explanatory variables for analyzing enterprise growth rates in the data panel, which includes data from different phases of the business cycle. There is an interaction between the size of the company and the phase of economic growth, so in the phase of prosperity smaller companies grow faster, while in the downward phase and in the recovery phase this is done by larger companies (Coad, 2009.)

The results of the research indicate a very asymmetric distribution of the size of enterprises, with a small number of large enterprises and a large number of smaller enterprises. Empirical findings show that organization, optimal production and financial capacity are the key determinants of the growth process of industrial small and medium enterprises (Levratto et al., 2010).

Numerous factors can affect the growth of a company, but the influence of individual factors on the growth of a company is rarely significant and permanent. A study conducted in Greece found that the factors that positively affect the company growth are the following: profitability, liquidity, long-term financing and employee productivity, while they have a negative impact on the growth of sales of fixed assets. The total assets used as a size variable did not prove significant (Voulgaris et al., 2003.). Access to external sources of financing is a major obstacle to business growth. The existence of a positive relationship between characteristics and growth has been established. Enterprise size and growth are inversely proportional (Tarfasa et al., 2016). The results of the research on enterprise growth factors in Belgium showed that: 1. innovations have a positive impact on enterprise growth; 2. solvency negatively affects the growth of the company; 3. profitability, financial leverage and liquidity do not have a significant impact on the growth of the company; 4. innovation has only a positive impact on the growth of small enterprises and does not affect the growth of large enterprises. Finally, the negative impact of solvency on company growth is significant only for companies in the manufacturing sector (Loi and Khan, 2012).

The size and height have a negative relationship. The size of the company does not significantly affect the profitability of the company (Kouser et al., 2012).

The total median growth rate for all companies in the sample of the survey is 4.77%, with companies from the second group having the highest growth rate. The highest growth rate of the median share in the capital in the total liabilities have companies in the activities of providing accommodation, food preparation and serving, hotel business, while the highest rate of decline of the median share of capital in the liabilities of the company was recorded by the companies engaged in mining and quarrying. The median is a better measure of showing a sustainable growth rate relative to the arithmetic mean. The arithmetic mean is influenced by extreme data, which we see in the fact that the third quartile is smaller than the arithmetic mean. The empirical statistical distribution of enterprise growth rates roughly corresponds to a symmetric exponential theoretical distribution (Laplace's schedule). The main implication is that the most economically important companies are in the right tail of the empirical distribution of growth rates, i.e. there is no excessive economic sense of the average value of this distribution, as it is common in regression-type econometric research. (Coad, 2009).

Some authors used logarithmic values to avoid inequality in the samples. However, the problem arises when interpreting the results of the model. In linear form the interpretation is simple. When x changes by one unit, then y changes by P units. When doing logarithm, the interpretation is also simple. The problem arises when comparing the results obtained using these methods (Kouser et al., 2012).

When we compare the median optimal growth rates with the medians of growth of income, capital and assets, we see that companies from the first group of companies measured by these indicators grow several times faster than optimal, as the size of companies increases, so the difference between these indicators and optimal growth rates is lower, although for all groups of medians the sustainable growth rates are lower than the median growth rates of income, capital and assets. Empirical research conducted in Argentina showed that financial resources, investment in new technology and market diversification are the most important indicators of company growth (Hermelo and Vassolo, 2007). Most studies find a weak negative relationship between the firm size and expected growth rate, even after considering a number of control variables, the most prominent of which are the probability of survival in the sample, the activity the firm engages in, and the least efficient firm size in that industry. Some studies conclude that there is not enough statistical evidence to reject the so-called Gibrat's law, according to which the company size and the expected rate of its growth are statistically

independent. Prior to conclusion, such surveys usually make the necessary corrections for measurement error problems. By applying autocorrelation and heteroscedasticity, the growth rate of the enterprise in the sample is modified, which can all affect the outcome of the assessment of the relationship between the size of the enterprise and its expected growth rate. (Coad, 2009).

4. CONCLUSIONS

The company growth almost always changes the nature of the management problems that the company faces, as well as the knowledge and skills necessary for the company to deal with the problems that arise. The research methodology was based on calculating the coefficient for each company in order to obtain the arithmetic mean, and median and quartile to obtain the relevant indicators. As econometric stochastic models have little value for predicting or explaining the growth process at the level of individual firms, the central subject of interest is understanding the growth process at the level of the individual firm. Empirical data indicate a very asymmetric size distribution of enterprises, with a small number of large enterprises and a large number of smaller enterprises. This distribution of the firm size can be explained by stochastic processes in which variable firm sizes are observed, and the result of cumulative random shocks (earthquakes) over time. The distribution of a company by size is the result of random processes.

The results of the research can be summarized as follows:

- The highest average rate and the highest median share of capital in the total liabilities of the company are recorded by the companies from the catering industry, followed by finance and insurance, while the companies in the field of education and agriculture, forestry and fishing have the lowest average participation rate, and the companies in the field of transport and storage have the lowest median.
- The total median growth rate for all companies is 4.77%, with companies from the second group having the highest growth rate. The highest growth rate of the median share in capital in total liabilities is recorded by enterprises from the activities of providing accommodation, food preparation and serving, hotel industry, while the highest rate of median share of capital in liabilities of the company is recorded by the companies engaged in mining and quarrying. The median is a better measure of showing a sustainable growth rate relative to the arithmetic mean. The arithmetic mean is influenced by extreme data, which means that the third quartile is smaller than the arithmetic mean.

– When we compare the median optimal growth rates with the medians of growth of income, capital and assets, we see that companies from the first group of companies measured by these indicators grow several times faster than optimal, as the size of companies increases, so the difference between these indicators and optimal growth rates is lower, although for all groups of medians the sustainable growth rates are lower than the median growth rates of income, capital and assets. On average, companies meet the requirement of the total amount of capital which is above 33%. When we look at the groups of companies, we can conclude that the largest share of capital in the sources of financing belongs to the companies from group III, that is, the companies that have over 5 million capital.

It can be concluded that numerous factors can affect the growth of a company, but that the influence of individual factors on the growth of a company is rarely significant and permanent.

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УПРАВЉАЊЕ РАСТОМ ПРЕДУЗЕЋА У РЕПУБЛИЦИ СРПСКОЈ

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САЖЕТАК

Методологија истраживања полази од рачунања коефицијента за свако појединачно предузеће како би се израчунавањем аритметичке средине, медијане и квартила добили збрини показатељи. Како економетријски стохастички модели имају малу вриједност за предвиђање или објашњење процеса раста на нивоу појединачних предузећа, централни предмет интересовања је разумијевање процеса раста на нивоу појединачног предузећа. Одржива стопа раста предузећа зависи од дјелатности предузећа. Бројни фактори могу утицати на раст предузећа, али је утицај појединачних фактора на раст предузећа ријетко значајан и постојан. Резултати проведеног истраживања указују на веома асиметричну дистрибуцију величине предузећа, са малим бројем великих предузећа и великим бројем мањих предузећа. Модел одрживог раста представља ефикасно средство за финансијско планирање и усмјеравање пословне политике ка стимулацији раста у појединим привредним гранама.

Кључне ријечи: *управљање, раст предузећа, одржива стопа раста, мјерење раста.*