

INTEGRATED BUSINESS FACULTY - SKOPJE

JOURNAL
OF SUSTAINABLE DEVELOPMENT





Journal of Sustainable Development

Journal of Sustainable Development

Volume 6, Issue 16

Pages: 1 - 93

Skopje, Macedonia

December, 2016

Publisher: Integrated Business Faculty, Skopje, Republic of Macedonia

Official member of the EBSCO Academic Database Service



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Integrated Business Faculty

Str. 3-ta Makedonska Brigada No. 66A, 1000 Skopje, Republic of Macedonia

Phone: +389 (02) 24 02 160

Fax: +389 (02) 24 66 043

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**ANALYSIS OF THE RELATIONSHIP BETWEEN THE EXPECTED RETURN AND BETA OF
SHARES ON THE MACEDONIAN STOCK EXCHANGE**

UDC: 336.763:336.781.5(497.7)

**ANALYSIS OF THE RELATIONSHIP BETWEEN THE EXPECTED RETURN
AND BETA OF SHARES ON THE MACEDONIAN STOCK EXCHANGE**

Diana BOSKOVSKA, PhD¹

Antonija JOSIFOVSKA, PhD²

ABSTRACT

In investment theory and practice, crucial factor in decision is relation between rate of return and risk. This paper studies the CAPM model that is used to calculate the required rate of return to the certain level of risk. The CAPM model is used to analyze the rate of return visa verse the risk on the Macedonian capital market. But, the analyses do not apply to the whole market portfolio, but rather to the market index of common shares of the Macedonian Stock Exchange (MBI 10).

When analyzing the relation between rate of return and risk, the variables that are incorporated in the CAPM model are calculated for a period of about 10 years, for the purpose of obtaining a more realistic value of beta, as a key element in this model. In the period of analysis, it appears one specific feature of the Macedonian capital market concerning that the rate of return of the Macedonian market of securities is low, below the risk free rate in the country, that determines a reverse relationship between the rate of return and risk.

KEYWORDS: rate of return, CAPM model, beta risk, Macedonian stock exchange, MBI 10.

JEL CLASSIFICATION: G11, G12

¹ Associate professor, Institute of economics, Ss. Cyril and Methodius, e-mail: diana@ek-inst.ukim.edu.mk

² Full-time professor, Integrated Business Faculty, e-mail: antonija@fbe.edu.mk

ANALYSIS OF THE RELATIONSHIP BETWEEN THE EXPECTED RETURN AND BETA OF SHARES ON THE MACEDONIAN STOCK EXCHANGE

1. INTRODUCTION

To the investor from crucial significance is the relation between rate of return of investment and relevant risk to obtaining the certain yield. The model for determining the rate of return depends on the types of sources of capital. The common shares present one type of source of capital. There are several models for determining the rate of return of this type of capital, such as the CAPM model, Gordon method, build-up method, arbitration model of valuation assets and others. In this paper, the rate of return is determined based on the CAPM model, that applies to capital market in the Republic of Macedonia.

In determining the rate of return or cost of capital based on this model, the market portfolio is not taken into account, but rather the calculation is made based on the market index of the common shares, so called MBI 10. Hence, the subject of research of this paper is the rate of return of shares (companies) that entering in the market index MBI 10. The main purpose of this paper is to see the relationship between the rate of return and risk of the stocks on the Macedonian capital market. Furthermore, it provides the basis for comparing the rate of return to the certain level of risk among different alternatives of investments on the capital market and then adoption the appropriate decisions by investors.

2. THE RATE OF RETURN ACCORDING TO CAPM MODEL

CAPM (Capital Asset Pricing Model) is one of the most applied and exploited models for valuation of assets in theory and practice.

The required rate of return of a risky asset is determined through this model, in the same time it presents the cost of capital, which later appears as the discount rate in the models for valuation of assets, or property.

The required rate of return obtained by this model is then compared with the estimated rate of return of the investor, and based on this, the value of the asset or portfolio is estimated whether it is real, overestimated or underestimated, and consequently a decision is made on whether to buy, sell or possibly maintain an adequate security or portfolio of assets.

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Mathematically, the model has the following form:

$$E(R_i) = R_{fr} + \frac{Cov_{i,m}}{\sigma_m^2} (R_m - R_{fr}) \quad (1)$$

and if the expression $\frac{Cov_{i,m}}{\sigma_m^2}$ is replaced by a new variable β (beta), where the covariance $Cov_{i,m}$ is determined as $R_i - R_m$, the equation takes the following form:

$$E(R_i) = R_{fr} + \beta_i (R_m - R_{fr}) \quad (2)$$

Based on the above equation, it can be seen that there are three elements in building the model for assessment of assets:

1. The rate of return of free risk investments (R_{fr}). Here, it should be noted that the yields of government securities is most often used as the rate of risk-free investments.
2. The coefficient of variability of yields of company shares in relation to the average variability of returns of all stocks in the stock market. This ratio is called the beta (β) ratio and represents a measure for quantifying the risk of holding shares of a particular company in relation to the shares of all companies listed on the stock market.
3. Market risk premium, as an additional risk of holding shares as a riskier asset in relation to the government securities ($R_m - R_{fr}$).

The equation above shows that there is a linear dependence between the required and the expected rate of return and risk (systemic risk β), because of which a higher risk would condition a higher required rate of return.

3. THE DETERMINATION OF BETA COEFFICIENT

The beta coefficient has a central role in the CAPM model. It is a measure of the systemic risk, as the only relevant risk in a diversified portfolio. Therefore, its value implies the risk of a specific asset in relation to its market portfolio as well. Namely, this coefficient measures the variability of the rate of return of individual securities in relation to the variability of the average rate of return of the overall

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market portfolio. The value of the beta coefficient is positive and can be above or below + 1. The value of the beta coefficient greater than +1 implies greater variability in the required rate of return of the relevant securities (stocks) in relation to the variability of the average of the total market portfolio. Therefore, such securities will be risky, but also carry higher yields. Most stocks have a beta-coefficient that ranges from 0.5 to 1.50. When the value of the coefficient is equal to 1, the risk of the relevant security equals the risk of the market portfolio or, in other words, the required rate of return for the particular security will equal with the average rate of return of the market portfolio. If the value of the beta coefficient is less than 1, for example 0.5, the risk of a particular stock will be half then the market portfolio, and when its value is +1.5, the risk of a stock is about 1.5 times the risk of the market portfolio. In terms of the rate of return, it would be reflected in such a way that in the first case with a change in the average rate of return on the market portfolio by 1%, the rate of return of the particular stock would change up to 0.5% and for the second case up to 1.5 %. Theoretically, the beta coefficient could have a negative sign, but in practice this is not confirmed.

The beta coefficient is calculated according to the equation:

$$\beta = \frac{Cov_{i,m}}{\sigma_m^2} = \frac{(R_i - \bar{R}_i)(R_m - \bar{R}_m)}{(R_m - \bar{R}_m)^2} \quad (3)$$

where:

- $Cov_{i,m}$ is a covariance of the yield of certain share and yield of market portfolio (or market index)
- R_i – monthly yield of share i ;
- \bar{R}_i – average yield of share i ;
- R_m – monthly yield of MBI 10;
- \bar{R}_m - average yield of MBI 10;
- σ_m^2 - variance of yield of the market portfolio (market index).

4. THE RATE OF RETURN AND BETA OF COMPANIES IN MBI 10

The shares in MBI 10 Index are used to determine the rate of return of the Macedonian capital market and in that context the beta risk. The MBI Index consists of common shares of up to 10 listed companies, selected according to the criteria

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from the methodology for calculation of the MBI 10.³ The Macedonian Stock Exchange Index is a price index weighted by market capitalization, which is located on the free market (free float), adjusted for dividend payments, with limit that on the day of revision the stake of each share-part of the index is not over 20%.

According to a revision of the Macedonian Stock Exchange Index conducted on 27.12.2013, the following companies are included in the composition of this index:

- Alkaloid AD
- Replek AD
- Granit AD
- Komercijalna Bank
- Makpetrol AD
- Stopanska Banka AD Bitola
- Macedonski Telekom AD Skopje
- Makedonija turist AD
- Toplifikacija AD

The CAPM model, explained previously, is used in calculating the rate of return of the common shares. So, as mention previously it is necessary to determinate the risk free of return, beta risk and market premium risk.

The interest rate of the treasury bills of the National Bank of the Republic of Macedonia, which in 2014 was 3.35%⁴ is used for the risk-free rate of return (R_{fr} in the model).

The calculation of beta is more complex. According to the equation 3, to calculate the covariance and variance are used monthly data on yields of individual shares included in the MBI 10, as well monthly yield of the index MBI 10 for the period 31.01.2005 to 31.03.2014. So, the monthly data on yields of individual shares included in the MBI 10, as well monthly yield of the index MBI 10 are obtained by the following equation:

$$\text{Rate of return} = \frac{\text{Sale price} - \text{Buy price} + \text{dividend}}{\text{Buy price}} \quad (4)$$

³ <http://www.mse.mk/mk/content/13/3/2010/structure-of-index-mbi10>.

⁴ www.nbrm.mk

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On the basis of the monthly data of the yield of the shares individually and MBI 10 index it's possible to calculate the average rate of return of the shares individually and for the MBI 10 index. The average return of the market index (MBI-10) for this period is 1.1794%, and data calculated for the average yield of individual stocks for the period analyzed, are given in Table 1.⁵ By obtaining this data then is calculated covariance (see Table 1) and variance⁶, that are basis to calculate the beta risk, which data is presented in Table 1, also.

The beta coefficient of individual securities (shares), besides mathematically, can also be determined by using a graphical method where is necessity to determine the characteristic line of the certain company or share. The slope of the line shows the dependence between the rate of return of the specific share and the market portfolio, that actually represents the beta risk and it's value is determined with the value before independent variable x (see Appendix).

Table 1. Average yield, covariance and beta of the individual stocks included in MBI 10

| Company/MBI 10 | Average rate of return (%) (\bar{R}_i) | Covariance ($(R_i - \bar{R}_i)(R_m - \bar{R}_m)$) | Beta coefficient ($(R_i - \bar{R}_i)(R_m - \bar{R}_m) / (R_m - \bar{R}_m)^2$) |
|------------------------------|--|---|---|
| Granit AD Skopje | 2,81 | 2,1809 | 1,3356335 |
| Alkaloid AD Skopje | 1,50 | 1,5738 | 0,9638008 |
| Komercijalna banka AD Skopje | 0,18 | 0,8877 | 0,5436135 |
| Replek AD Skopje | 2,4 | 0,6917 | 0,423584 |
| Makpetrol AD Skopje | 1,77 | 1,6341 | 1,000734 |
| Stopanska banka AD Bitola | 0,01 | 0,9531 | 0,583666 |
| Makedonski telekom AD Skopje | 0,17 | 0,3988 | 0,345089 |

⁵ In the calculation dividends are excluded.

⁶ Variance is the same for all nine shares included in MBI10 index and it value is 1,6329.

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| | | | |
|----------------------------|------|--------|----------|
| Makedonijaturist AD Skopje | 1,42 | 0,9245 | 0,566162 |
| Toplifikacija AD Skopje | 0,94 | 1,7676 | 1,082503 |

Source: Own calculation based on data obtained from www.mse.org.mk

Based on the data from this table, it can be seen that beta is greatest for the Granit AD Skopje company, with the values of 1.33, and for the Macedonian Telecom is 0.345, that is the smallest from all others. Based on these data, it can be seen that the share of the Granit AD Skopje company has the biggest risk, while the least risky share is the share of Macedonian Telecom. It actually means that when changing beta for 1 percent, the rate of return of the company Granit AD Skopje will change for 1.33%, while for the company Macedonian Telecom AD for 0.34%.

Besides free risk rate of return, beta risk is necessary to calculate the market risk premium ($R_m - R_{fr}$), that has the same value for all shares included in MBI10 index from 3.18 %.

By determining all the necessary elements, the application of the CAPM is enabled, which was presented above, based on which the rate of return for companies involved in MBI 10 is determined (see Table 2).

Table 2. Rate of return of the companies in MBI 10

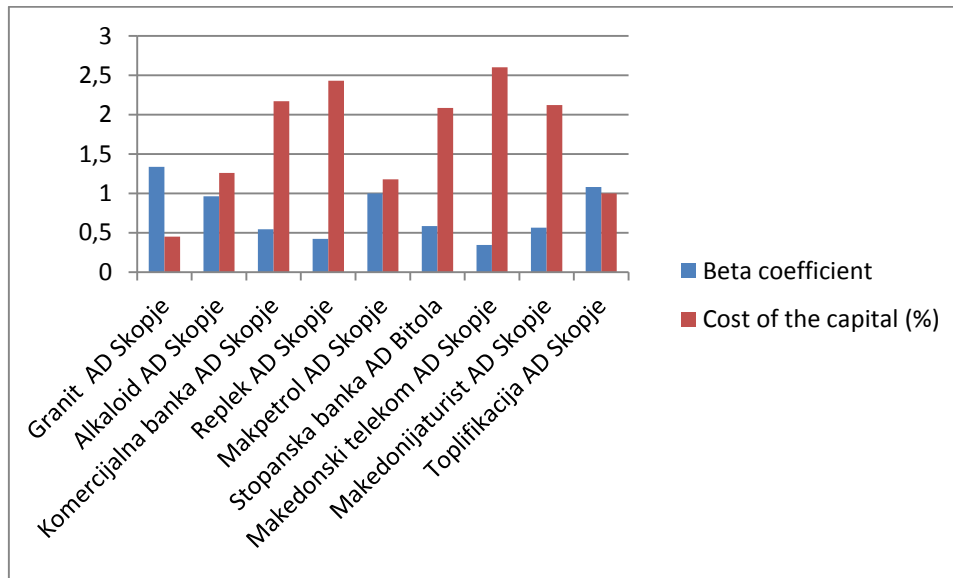
| Company | Rate of return (%) |
|------------------------------|---------------------------|
| Granit AD Skopje | 0,451675 |
| Alkaloid AD Skopje | 1,258552 |
| Komercijalna banka AD Skopje | 2,170359 |
| Replek AD Skopje | 2,430823 |
| Makpetrol AD Skopje | 1,178407 |
| Stopanska banka AD Bitola | 2,083445 |
| Makedonski telekom AD Skopje | 2,601157 |
| Makedonijaturist AD Skopje | 2,121428 |
| Toplifikacija AD Skopje | 1,000968 |

Source: Own calculation based on data obtained from www.mse.org.mk

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Based on the data given in Table 2, it can be noted that the cost of capital is highest for the company Macedonian Telecom AD, which is 2.6%, while the lowest is for the company Granit AD Skopje of 0.45%.

Graph 3. Rate of return (cost of capital) and beta coefficient for the companies in MBI 10



According to data in Graph 3, where is presents the relation between rate of return and beta risk, it possible to see that there is a reverse relationship between beta and the rate of return. Namely, company that has the riskiest stock has the lowest rate of return (cost of capital), and vice versa, which is in contrast to the economic logic of investing, which involves higher risk to brings higher yields. This situation on the Macedonian capital market is a result of the lower average yield realized by shares in MBI 10 (1.1794 %) than by buying treasury bills as the risk-free yield (3.35%), which as less risky securities generally should have a lower yield than the shares as a more risky investment.

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CONCLUSION

In investment theory and practice crucial to making an appropriate decision is the relationship between yield and risk. In the focus of this paper is the rate of return and risk of financial assets, primarily of the shares. In the article beta coefficient is taken as a measure of the risk of assets. Specifically, in the paper are determined the riskness of the Macedonian capital market, based on the calculation of the beta for the common shares included in market index MBI-10. Besides beta is calculated by a mathematical way, also in the paper beta is determined by graphic way by determining the characteristic line for each share, i.e. company in MBI-10 index. Given that the beta is a key variable in the CAPM model, the values obtained for beta allow to calculate the rate of return with the CAPM model, that enables analysis of the relation yield –risk, from other side. Unlike the usual positive correlation between yield and risk, the Macedonian capital market notes the existence of a reverse relation between yield and risk. Namely, the company, or the share that has the highest beta risk at the same time has the lowest yield. This state of macedonia capital market is due to the lower rate of market returns to risk free rate. This situation is serious barrier for the successful development of the share market seen in the long term, as the generally of capital market, because this in turn leads to reduced incentive for investment in shares, but more invest in other types of securities such as government securities, treasury bills and other less risky securities.

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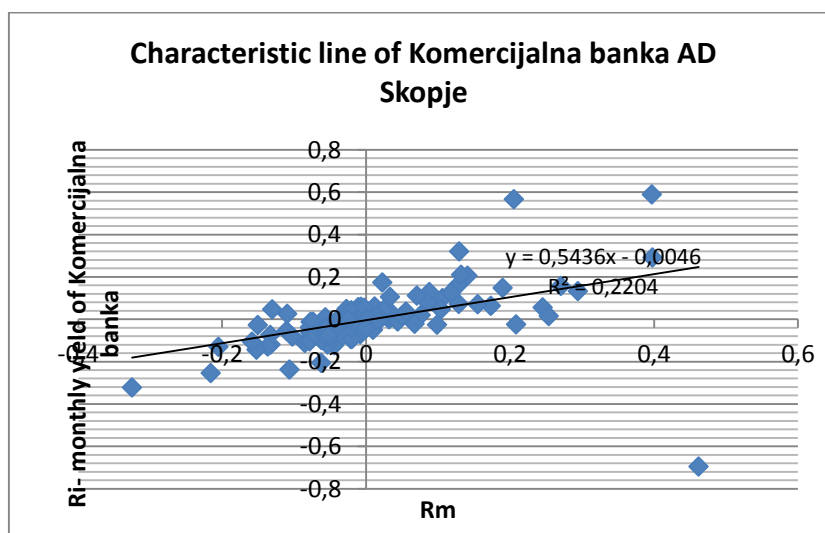
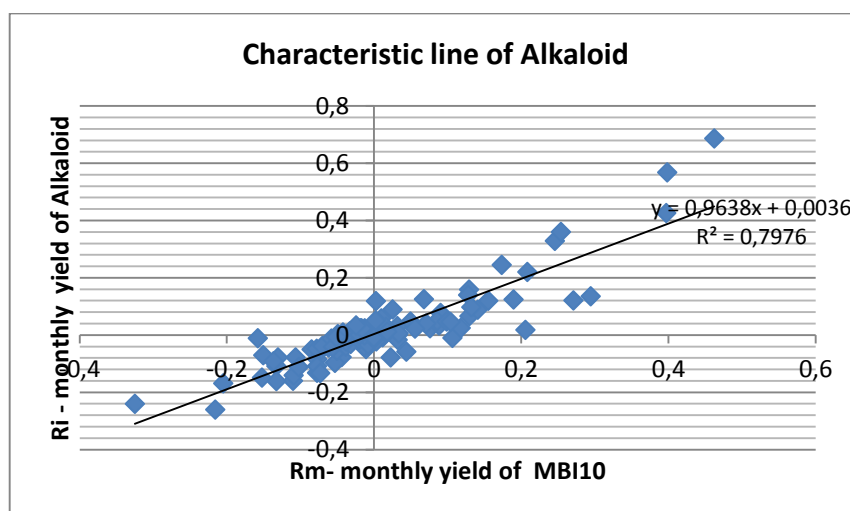
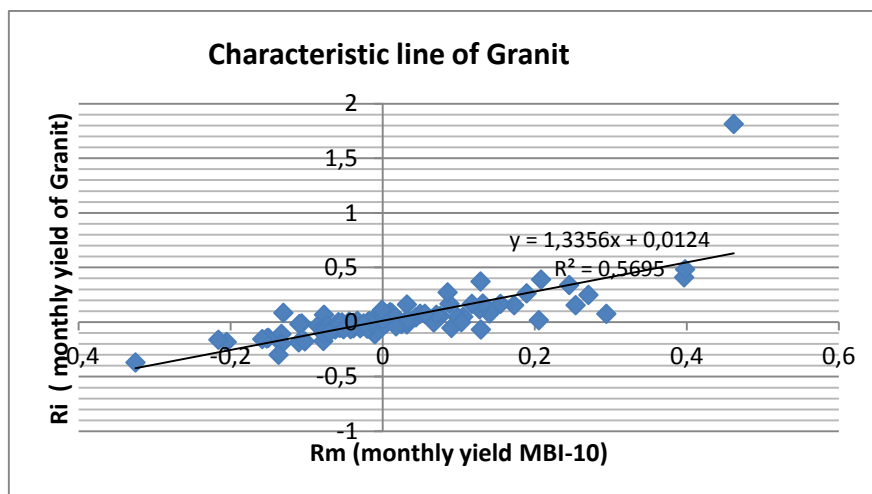
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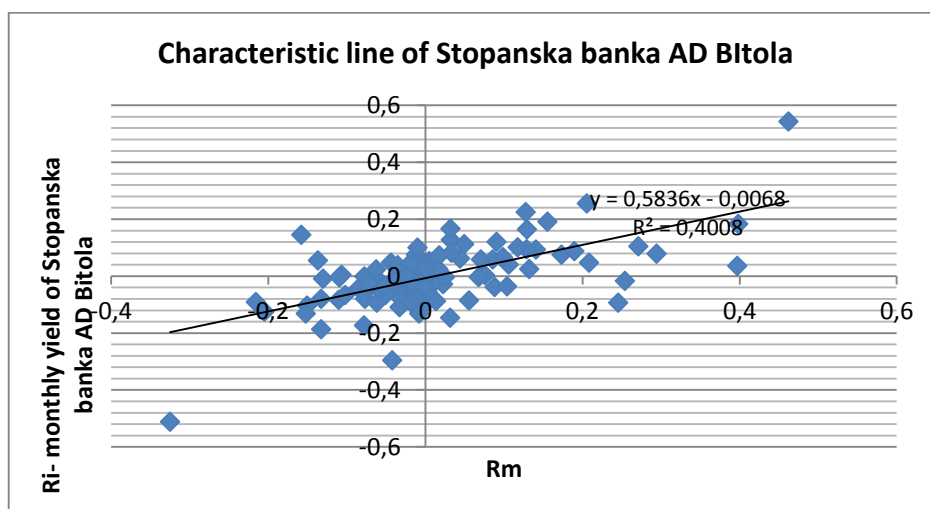
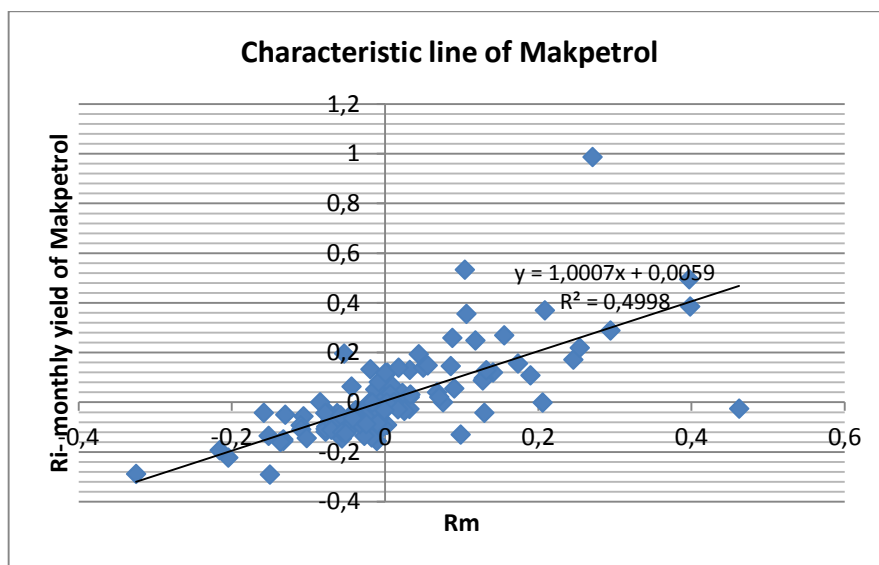
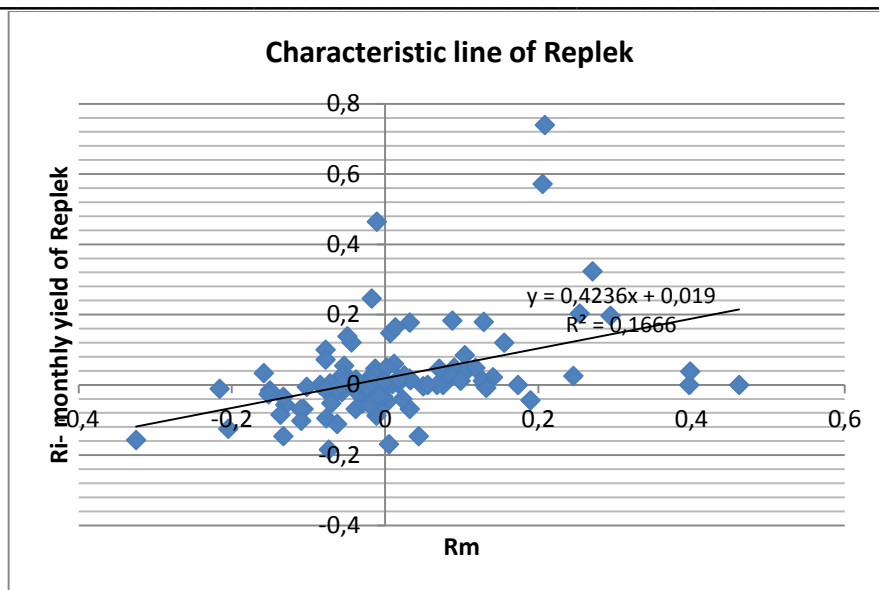
ANALYSIS OF THE RELATIONSHIP BETWEEN THE EXPECTED RETURN AND BETA OF SHARES ON THE MACEDONIAN STOCK EXCHANGE

ANNEX

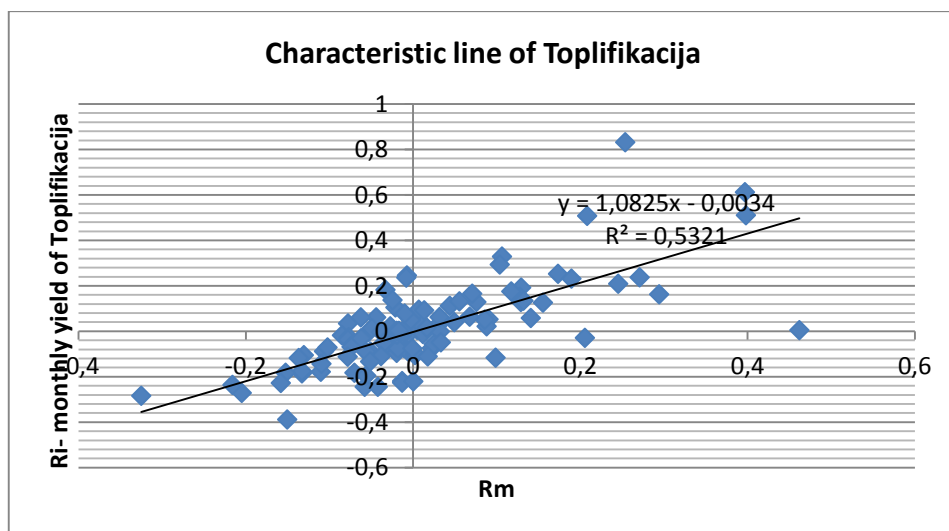
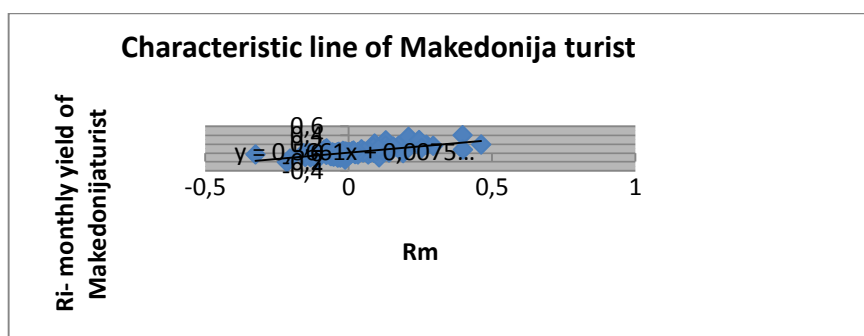
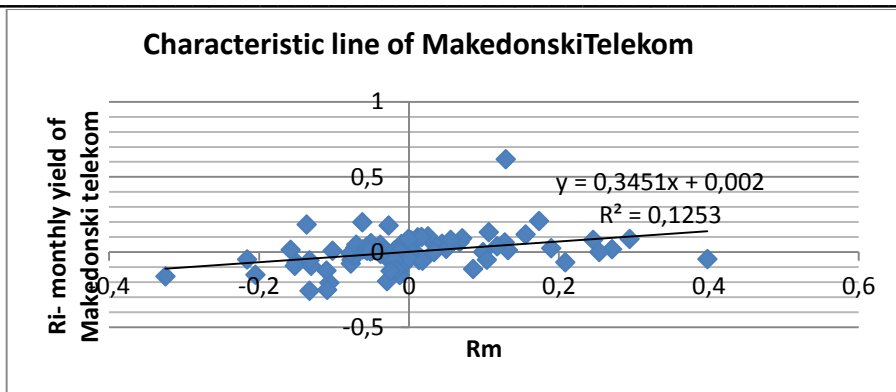
Characteristic line of the companies (shares) in the MBI 10 index



ANALYSIS OF THE RELATIONSHIP BETWEEN THE EXPECTED RETURN AND BETA OF SHARES ON THE MACEDONIAN STOCK EXCHANGE



ANALYSIS OF THE RELATIONSHIP BETWEEN THE EXPECTED RETURN AND BETA OF SHARES ON THE MACEDONIAN STOCK EXCHANGE



**RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENTS AND GROSS DOMESTIC
PRODUCT IN CASE OF REPUBLIC OF MACEDONIA**

UDC: 339.727.22:330.55(497.7)"2001/2014"

**RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENTS AND
GROSS DOMESTIC PRODUCT IN CASE OF REPUBLIC OF MACEDONIA**

Tome NENOVSKI, PhD¹

Ninko KOSTOVSKI, PhD²

Dobriła DEJANOSKA, MBA³

ABSTRACT

Foreign direct investments play important role in the economic growth of the countries. Scientist and policy-makers almost unanimously believe that the inward foreign direct investments positively influence the economic growth indicators of the host countries such as the industrial output, employment, export and ultimately the gross domestic product. Moreover, the foreign direct investments in the developing countries have many positive externalities, like the transfer of the new technologies and industrial expertise that these countries cannot normally afford. They foster the formation of high quality local human resources and integrate these countries into the global markets with higher country competitiveness than it would be without them. All of these direct and indirect outcomes of the foreign direct investments contribute to the faster economic growth of the host countries. This paper examines the correlation between the growth of the foreign direct investments and the growth of the Gross Domestic Product in the case of the Republic of Macedonia. The main conclusion is that the relationship between these two categories is positive and statistically significant. Although the applied method does not imply existence of actual cause-effect relationship, based on its result, and supported by the findings of other foreign and domestic economists presented in the literature review, we conclude that the Country can continue with foreign direct investment friendly policies and incentives. However, the possible adverse effects of the foreign direct investments in the local economy and the fair competition, should be contained as much as it is possible.

¹ Professor, University American College Skopje, e-mail: nenovski@uacs.edu.mk

² Professor, University American College Skopje, e-mail: Kostovski@uacs.edu.mk

³ Head of Finance and Accounting, Ciklama Engineering, e-mail: contact@ciklama.com.mk

RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENTS AND GROSS DOMESTIC PRODUCT IN CASE OF REPUBLIC OF MACEDONIA

KEYWORDS: Foreign Direct Investments, gross domestic product, Economic Growth, Developing Countries

JEL CLASSIFICATION: E22, F21, O11

INTRODUCTION

Foreign direct investments are considered important factor for economic growth of the host countries. Due to the positive effect of the foreign direct investments for the economy, countries in transition, emerging economies and developing countries all have liberalized their legal frameworks and create various policies to attract even more foreign investments. Nevertheless, the domain of the foreign direct investments remains to be somehow controversial issue in the economic literature. Many researches are ready to argue that they harm more than they contribute to the economic growth, especially when the host country is underdeveloped and poor. However, the economic literature in general puts forward the positive impacts of the foreign direct investments in a host country, including technology spillovers, human capital formation support, improvement of competitive business environment, contribution to international trade integration, increase of competition and enhancing of enterprise development and reorganization. Moreover, many argue that beyond the pure economic benefits, the foreign direct investments bring cleaner technology and more socially responsible corporate policies. All of these benefits contribute to faster economic growth, which is the main instrument for alleviating poverty in these economies. The aim of this paper is to examine the patterns of the foreign direct investments and gross domestic product in the Republic of Macedonia, between 1997 and 2014, and the correlation between these two variables between 2002 and 2014. The relationship is positive and statistically significant. Although the applied method does not imply existence of actual cause-effect relationship, based on its result, and supported by the findings of other foreign and domestic research presented in the literature review, we conclude that the Country can continue with foreign direct investment friendly policies and incentives. However, the possible adverse effects of the foreign direct investments to the local economy and to the fair competition should be contained as much as it is possible.

DEFINITION AND ROLE OF FOREIGN DIRECT INVESTMENTS IN DEVELOPING COUNTRIES

The concept of foreign direct Investment implies existence of a long-term relationship between the investor, resident entity in one economy, and the direct investment enterprise, an entity resident in another economy, with a significant degree of influence of the investor on the management of that enterprise. Direct investment involves both, the initial transaction between these two entities and all subsequent capital transactions between them and among their affiliated enterprises.⁴The foreign direct investments are probably the main channel of technology transfer, including both technical and managerial expertise, as well as, various types of spin-off effects for the majority of the developing countries. They indicate on many well-explored mechanisms through which such spillovers may be realized, explaining the horizontal or intra-sector spillovers. They stem from the knowledge and technology used by the foreign direct investment firm that they transfer to the competing local firms within the same sector. In addition, vertical or inter-sector spillovers are those that transfer through the supply chain from the foreign intermediate suppliers to the domestic producers or from the foreign firm to the domestic suppliers.⁵Moreover, for the economies in transition, the vertical spillovers from the foreign investments are of a greater importance, compared with the horizontal spillovers.⁶According to Kurtishi, the technologies that are transferred to developing countries in connection with foreign direct investment tend to be more modern and environmentally cleaner than the local plants. Moreover, the positive externalities have been observed, where local imitation, employment turnover and supply-chain requirements led to more general environmental improvements in the host economy.⁷ Campos and Kinoshita explained the learning process i.e. know-how as one of the mechanisms through which the foreign direct investments affect the growth. They diffuse the knowledge of production methods, product design and

⁴ OECD (2008) Benchmark Definition of Foreign Direct Investment, 4th Edition, Paris, France

⁵ Newman, C., Rand, J., Talbot, T. and Tarp, F. (2015) Technology transfers, foreign investments and productivity spillovers, *European Economic Review*, 76, p. 168-187

⁶ Damijan, J., Knell, M., Majcen, B. and Rojec, M. (2003) Technology Transfer through Foreign Direct Investments in Top-10 Transition Countries: How Important are Direct Effects, Horizontal and Vertical Spillovers?, *International Conference Proceedings*, p.1-23

⁷ Kurtishi, S. (2013) The Effects of Foreign Direct Investments for Host Country's Economy, *European Journal of Interdisciplinary Studies*, 5(1), p. 26-38

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new organizational and managerial techniques.⁸ Being vehicles for adoption of many new technologies, the training required to prepare the local labor to work with them suggests that there may also be positive effect on the human capital accumulation.⁹ For Blomström and Kokko, the relation between the foreign direct investments and the human capital is complex and highly non-linear and several different outcomes are possible. The host economies with higher levels of human capital may be able to attract larger amounts of technology intensive direct investments that then contribute significantly to the further development of the local labor skills. At the same time, economies with weaker initial conditions are likely to experience smaller inflows of foreign investments and the firms entering these countries will opt to less sophisticated technologies that contribute only marginally to the local learning and skill development.¹⁰ Barrios et al. developed a model that shows positive effects of the foreign direct investments on the expansion of the local firms in the host country. They also argued that the efficiency of the local firms is higher when the amount of the capital transferred through the foreign investments is larger. They also show that the local firms need to adapt to the new competitors. They even may provoke exit from the market of some weak local firms, while the remaining will capture even more positive spillovers effect from the presence of the new investors.¹¹ In these terms, Mencinger provided evidence of direct link between the increase of foreign direct investments and the integration of the host country into the global markets and economy.¹² Analyzing the foreign direct investment and its impact on the economic growth in the Central and Eastern European countries between 2000 and 2012, Hlavacek et al., found statistically significant relation between the economic growth and the foreign direct investment and the level of the gross domestic product. However, they also found significant

⁸ Campos, Nauro F. and Kinoshita, Y. (2002) Foreign direct investment as technology transferred: some panel evidence from the transition economies, *Manchester School*, 70(3), p.398-420

⁹ Borensztein, E., De Gregorio, J. and Lee, J-W. (1998) How does foreign direct investment affect economic growth?, *Journal of International Economics*, 45, p. 115 – 135

¹⁰ Blomström, M. and Kokko, A. (2003) Human capital and inward FOREIGN DIRECT INVESTMENTS, Working paper, 167

¹¹ Barrios, S., Gorg, H. and Stobi, E. (2005) Foreign direct Investment, competition and industrial development in the host country, *European Economic Review*, 49(7), p. 1761-1784

¹² Mencinger, J. (2003) Does foreign direct investment always enhance economic growth?, *Kilkos*, 56 (4), p. 491 – 508

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differences in the links between the inflow of foreign investment and in economic growth. Estonia, followed by Hungary, the Czech Republic and Slovakia show higher influence of foreign direct investments to their gross domestic product when recalculated to the manpower. Lower influence of the foreign direct investments on the economy was reported in case of Lithuania, Poland, Latvia, and Slovenia.¹³ Some researchers claim that the globalization and the massive proliferation of the foreign direct investments can harm rather than benefit the host countries. They stress the orientation to the extraction industries, environment contamination, and unethical use of labor and lack of long-term orientation. The availability of natural resources and cheap labor are the main motives for these investors claim Kudina and Jakubiag (2008). Moreover, when they leave, the host country is in even worst position than it used to be, argues Haynes (2003).

As a measure and best proxy of the economic growth, for the purposes of this paper, we use the change of the gross domestic product. One of the major goals of governments is long term and sustainable economic growth measured by the change of the present gross domestic product against that of the previous year. Thus, the gross domestic product is used by economic-policy makers worldwide to get a picture of the state and the development of the economy and about the economic welfare in a given country. However, the concept of gross domestic product as measurement of the growth and particularly as measurement of the actual living standard is not perfect and it was always been questioned by many economists. For Martin and Mendoza, it is truth that the narrow vision obtained by a single measure as the gross domestic product do not allows the differences of the actual quality of life to be fully analyzed, and that several more sophisticated methodologies have been proposed in the literature to measure the quality of life.¹⁴

¹³ Hlavacek, P. and Bal-Domanska, B. (2016) 'Impact of Foreign Direct Investment on Economic Growth in Central and Eastern European Countries', *Engineering Economics*, 27, 3, pp. 294-303

¹⁴ Martín, J, & Mendoza, C 2013, 'A DEA Approach to Measure the Quality-of-Life in the Municipalities of the Canary Islands', *Social Indicators Research*, 113, 1, pp. 335-353

FOREIGN DIRECT INVESTMENTS IN REPUBLIC OF MACEDONIA

As a small open economy, the Republic of Macedonia is heavily dependent on the foreign direct investments. Therefore, the Country continues with measures aimed to attract more foreign investors. In pursue to attract foreign investments, the government has enacted a number of incentives and continues with an extensive promotional campaign through international media outlets and high-level business road shows. This raises the profile of the Republic of Macedonia in many leading newspapers, magazines, TV channels in the World. The governmental agency Invest Macedonia serves as point of contact for operational matters and follow-up with investors. Invest Macedonia Agency has resident economic promoters in many foreign countries. The Republic of Macedonia successfully finalized the harmonization of the legal and regulatory environment with the international, primarily, the European Union's standards. However, according to Petrusheva and Nikolovski, the foreign investors pay attention more to the political, rather than to the economic factors when deciding in which country or region to invest. Therefore, in their decision making the foreign investors appreciate a stable and favorable business environment, the rule of law, and the independent judiciary, property rights guarantees, as well as, fair conditions for running their businesses argue Petrusheva and Nikolovski. They also claim that the tax reliefs or the cheap labors are of secondary importance. Considering the fact that the investors have more alternatives for their investments, what tips their decision list, apart from the stable political environment, are the pure business factors: the size of the national and the access to the neighboring markets, growth of long-term expenditure, qualified work force, developed infrastructure and available plots for location of the production facilities. In these terms, and in comparison with some other countries in the region of the Balkans, the economic factors describing the Republic of Macedonia are not always favorable for the Country. In fact, the most of them are rather poor. Therefore, the Republic of Macedonia had to develop a set of investment incentives particularly in the area of taxation, low production costs and competitive workforce, which are labeled as the most favorable in the region, claim

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Petrusheva and Nikolovski.¹⁵ Although these and similar statements need yet to be confirmed in suitable field research and having in mind that there are researchers critical to the real benefits of the foreign direct investments for the host countries, the policy makers in the Country seems that hold similar, if not, equal standing points. For example, the foreign investors in the Republic of Macedonia are eligible for profit tax exemptions for the profits generated during the first three years of operation, in proportion to the amount of foreign investment, profits reinvested in the company; profits invested in environmental protection and profits invested in "underdeveloped" regions. ¹⁶The Country signed number of bilateral investment protection treaties and other multilateral conventions that impose higher protection standards for the foreign investors. Free trade agreements have been signed with Turkey and Ukraine, the countries from EFTA and there is the Stabilization and Association Agreement with the EU, giving the Republic of Macedonia duty-free access to markets of 650 million consumers. In 2006 Macedonia became a member state of the Central European Free Trade Agreement.¹⁷

RESEARCH FINDINGS AND DISCUSSION

Our survey of the foreign direct investments in Republic of Macedonia and their impact on the gross domestic product of the country is based on the statistical data of the National Bank of Republic of Macedonia, as the main source of data for the foreign capital flow in the Country. It has two parts. In the first part we analyze the time series of both variables trying to explain to the readers, the genesis and main achievements or fails in a time span between 1997 and 2013. In these terms, every effort to analyze the dynamics of the foreign direct investments in case of the Republic of Macedonia easily discerns two distinctive periods. During the nineties, the foreign direct investments in Republic of Macedonia were very small, reflecting the unfavorable external circumstances (new independent country) and lack of a coherent policy. Moreover, it was a decade of the trade embargo imposed by Greece

¹⁵ Petrusheva, N. and Nikolovski, A. (2013) Foreign Investments As Development Factor For Overcoming Economic Stagnation In The Republic Of Macedonia, *Economy and market communication review*, 3(2), p. 245-259

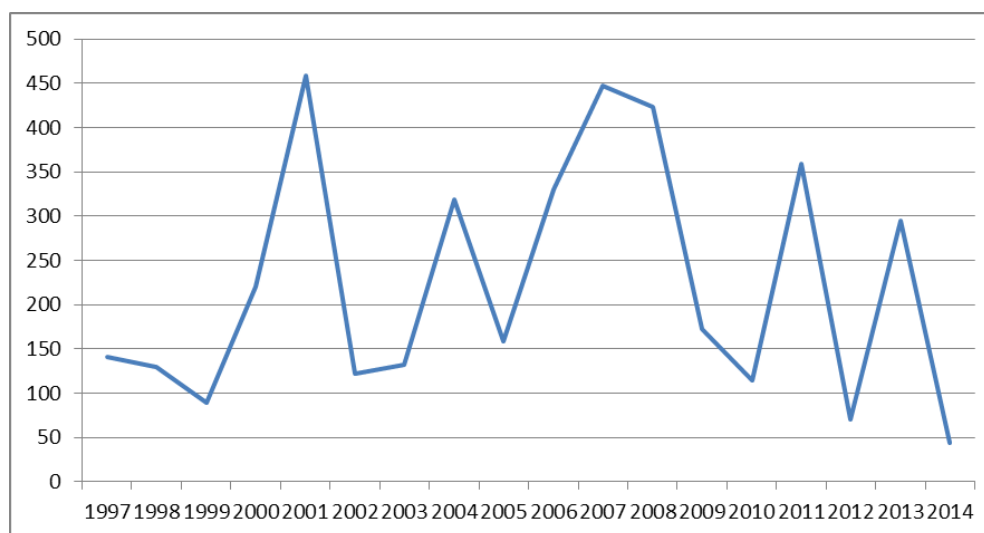
¹⁶ <http://www.state.gov/documents/organization/229136.pdf>

¹⁷ <https://www.pwc.de/de/internationale-maerkte/assets/doing-business-and-investing-in-macedonia.pdf>

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and many domestic political problems. The crisis reached the pick during the 2001 insurgency in parts of the Country, solved by the Ohrid Agreement sponsored by the international community. However, since then, the Country entered a new stage and started to have higher foreign direct investments rates, mostly due to the privatization of the main utility companies. The foreign direct investments inflows increased noticeably, reaching 459 million Euro in 2001 (sale of a half of the national telecom) and 329 million in 2006 due to the privatization of the country main power distributor. This two picks are clearly visible on the Chart 1.

**Chart 1 - Foreign Direct Investments in Republic of Macedonia
(Million Euro)**

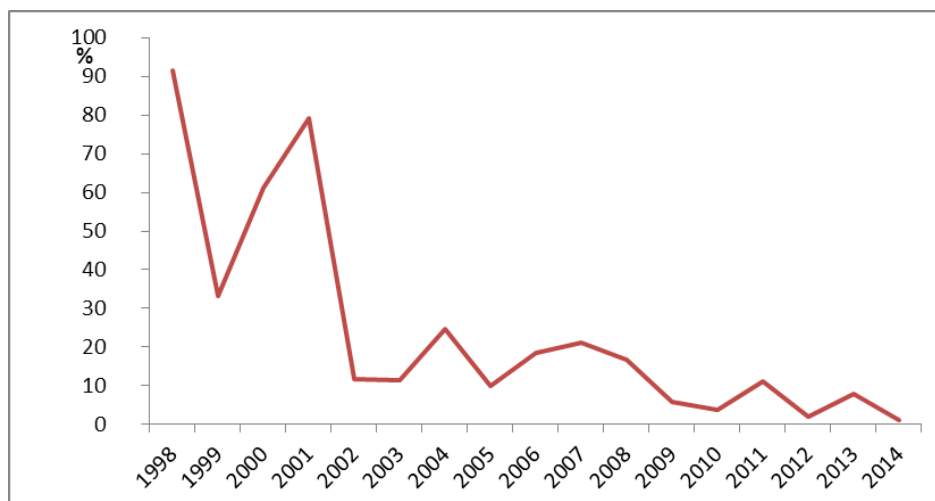


Source: National Bank of Republic of Macedonia, calculation of the authors

With the privatization of the public enterprises nearly finished, the Republic of Macedonia slowly entered the period after 2006, with lower and moderate rate of growth of the foreign direct investments, as depicted in Chart 2.

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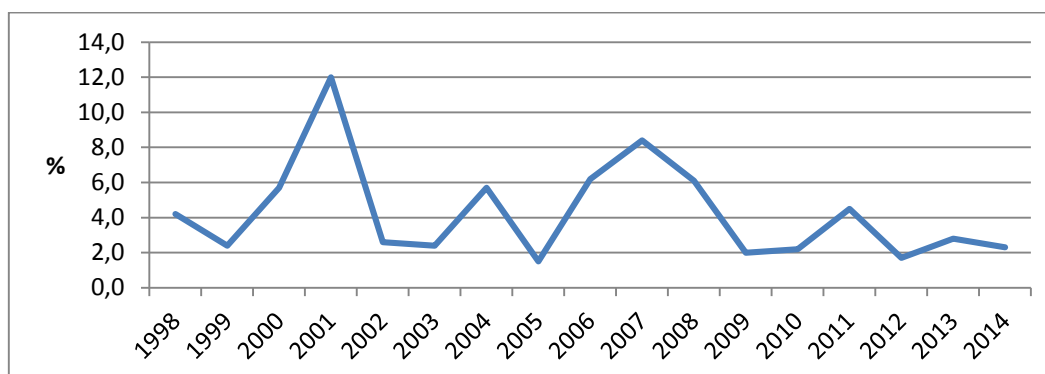
Chart 2 - Growth Rates of the Foreign Direct Investments in Republic of Macedonia



Source: National Bank of Republic of Macedonia, calculation of the authors.

Regarding the second main concern of our paper, the relationship between the foreign direct investments and the gross domestic product, the highest level of the foreign direct investments relative to the gross domestic product of 12% is marked in 2001 (privatization of a half of the stakes in the national telecom). The second pick (2006) corresponds with the privatization of the electricity distributor. However, the average annual foreign direct investments net inflows in the Republic of Macedonia, between 1998 and 2014 are app. 4% of the Country's gross domestic Product, as it can be seen from Chart 3.

Chart 3 - Foreign Direct Investments in the Republic of Macedonia as percentage of the gross domestic product

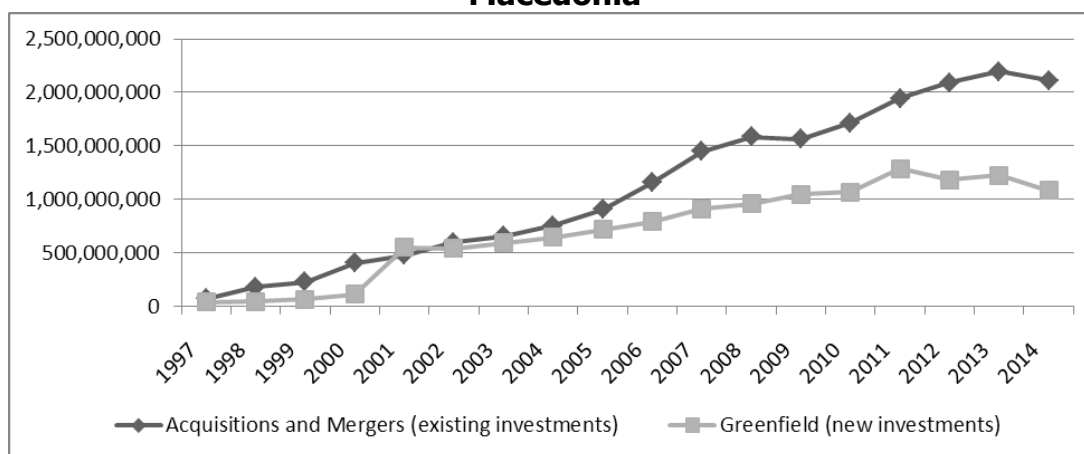


Source: National Bank of Republic of Macedonia, calculation of the authors.

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According to Krstevska and Petrovska, this percentage is lower when compared with some other transitional economies, like that of Bulgaria, Romania, Croatia or Slovakia.¹⁸ The structure of the foreign direct investments in terms of their distribution between existing firms and the greenfield investments is depicted in the Chart 4. Although data show that the greenfield projects are below the investments in existing entities, IMF in its Report noted that the Republic of Macedonia has been successful in attracting greenfield investments particularly in the food and metal processing (especially automotive parts) and in some other higher value-added industries.¹⁹

Chart 4 – The Structure of the Foreign Direct Investments in Republic of Macedonia



Source: National Bank of Republic of Macedonia, calculation by the authors

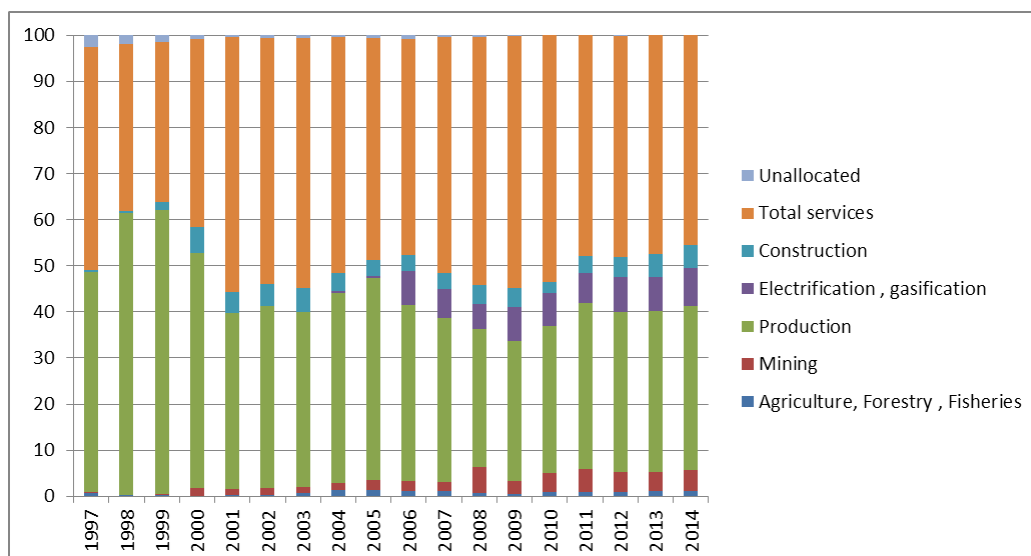
Chart 5 depicts the distribution of the foreign direct investments between the main economic sectors in the Republic of Macedonia. Up to 2001, the most preferred sector to invest was production (manufacturing), while in the years that followed, the priority was given to the service sector with app. 51% of the total foreign direct investments. The largest share of the production sector was in 1999 with 61.70% and the lowest is in 2008 with 29.85%. The foreign direct investments in electricity and gas remain almost unchanged averaging app. 7%, together with all other sectors that are steady around 10%.

¹⁸ Krstevska, A. and Petrovska, M. (2012) "The economic impacts of foreign direct investments: panel estimation by sectors on the case of Macedonian economy", *Journal of Central Banking Theory and Practice*, 1(2), pp. 55-73

¹⁹ International Monetary Fund (2012), *Former Yugoslav Republic of Macedonia*, IMF Report. Available at <https://www.imf.org/external/pubs/ft/scr/2012/cr12133.pdf>

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Chart 5 - Foreign Direct Investments by sectors of the economy



Source: National Bank of Republic of Macedonia, calculation of the authors

Regarding the countries of origin of the foreign direct investments in the Republic of Macedonia, (see Table 1) the leading countries are the Netherlands, Austria, Greece, Slovenia, and Hungary.

Table 1 – Foreign direct investments in Macedonia by country of origin

| | 1998 | 2001 | 2004 | 2007 | 2010 | 2012 | 2013 | 2014 |
|--------------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Netherlands | 5 | 16 | 103 | 431 | 550 | 783 | 815 | 870 |
| Austria | 30 | 37 | 62 | 238 | 342 | 397 | 484 | 516 |
| Greece | 13 | 174 | 264 | 387 | 431 | 436 | 434 | 429 |
| Slovenia | 21 | 59 | 102 | 166 | 367 | 349 | 397 | 388 |
| Hungary | 0 | 301 | 354 | 421 | 347 | 346 | 325 | 227 |
| Switzerland | 41 | 79 | 144 | 167 | 150 | 89 | 72 | 174 |
| Germany | 14 | 55 | 71 | 86 | 71 | 84 | 111 | 155 |
| United Kingdom | 6 | 19 | 28 | 81 | 103 | 39 | 112 | 142 |
| Cyprus | 77 | 139 | 151 | 21 | 46 | 58 | 69 | 51 |
| Serbia- Montenegro | 19 | 30 | 30 | 0 | 0 | 0 | 0 | 0 |
| Other countries | 44 | 132 | 302 | 548 | 850 | 1,106 | 1,162 | 1,073 |
| Total | 270 | 1,039 | 1,610 | 2,545 | 3,256 | 3,686 | 3,980 | 4,024 |

Source: National Bank of Republic of Macedonia, calculation of the authors

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The study of the relationship between the foreign direct investments and the gross domestic product is based standard Pearson correlation between the absolute changes of the foreign direct investments and that of the gross domestic product.

Table 2 –Changes of the Foreign Direct Investments and the gross domestic product of Republic of Macedonia between 2002 and 2014

| Year | Year to Year Change of Foreign Direct Investments | Year to Year Change of Gross Domestic Product |
|------|---|---|
| 2002 | | |
| 2003 | 131.43 | 145.32 |
| 2004 | 318.09 | 191.86 |
| 2005 | 158.75 | 454.16 |
| 2006 | 329.60 | 440.40 |
| 2007 | 446.59 | 622.30 |
| 2008 | 423.59 | 677.45 |
| 2009 | 172.62 | -5.21 |
| 2010 | 114.60 | 341.95 |
| 2011 | 359.11 | 435.44 |
| 2012 | 70.46 | 40.72 |
| 2013 | 294.42 | 565.08 |
| 2014 | 43.67 | 380.00 |

Source: NBRM, SSO, calculation of the authors

The results show that the growth of the foreign direct investments and the growth of the country gross domestic product, in case of the Republic of Macedonia are correlated positively with relatively high coefficient of 0.64. The p-value of the calculation is 0.024 and since it is less than $\alpha=0.05$, our calculation is statistically significant at the confidence level of 95%.

CONCLUSIONS AND RECOMMENDATIONS

All caveats related with the method of linear correlation should be taken into account. It does not prove cause and effect between the growth of the foreign direct investments and the gross domestic product, nor vice versa. Moreover, both variables might be influenced by other factor(s) or even the correlation might be purely circumstantial. In many underdeveloped countries, the foreign direct

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investments heavily exploit the natural resources and local labor and that directly boosts the gross domestic product. Vice versa, when a country marks high gross domestic product per capita, it becomes interesting for market seeking foreign investors. Finally, both categories might be induced simultaneously by some external factor(s). This was a case with the investment and spending boom in former communist bloc countries with their membership in EU and NATO.

However, the literature review turns that many researchers do not have doubts that the foreign direct investments contribute to the growth of a country's gross domestic product. In case of the Republic of Macedonia, they claim that these investments fostered the transfer of new technologies and expertise that we, as a small economy, otherwise would not be able to afford. They also help formation of quality human capital, contribute to the integration of the Republic of Macedonia into the global international trade and increase the competitiveness and the development and reorganization of the local firms. Moreover, the foreign direct investments contribute to the decrease of the unemployment by creating jobs and increasing the productivity of the existing. They also help the overall enterprise development by promoting competitive business environment and enhance the technological sophistication of the Country, they claim. Having in mind the relatively high positive correlation between the growth of the foreign direct investments and the growth of the gross domestic product and that many researchers think that the foreign direct investment are useful for overall development, we can conclude that the Country should continue with foreign direct investment friendly policies and incentives. However, the policy-makers should carefully monitor the possible adverse effects of the foreign direct investments on the local economy, like the lack of long-term commitment and the overreliance on the state aid. Finally, the foreign direct investments friendly policies, by no means should discriminate the local economic entities and to suppress the indigenous business acumen in the Country.

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UDC: 334.722.24:005-027.561

PROFESSIONAL MANAGEMENT OF FAMILY ENTERPRISES IN
FUNCTION OF ADEQUATE ADJUSTMENT OF DIVERSITY OF
INTERESTS OF FAMILY AND BUSINESS

Ljubisha NIKOLOVSKI, PhD²⁶

Marijana RADEVSKA, M.Sc.²⁷

Elizabeta PETKOVSKA, M.Sc.²⁸

ABSTRACT

Family business as part of an entrepreneurial business, is a business which is founded by two or more members of a family. Family businesses are more prevalent in the business environment. There are many positive features of having a family enterprise, but as a major and important feature to mention is that in the family company control over the management and ownership is in the hands of family members. The subject of research in this paper is managing the interests of the family versus business interests in family enterprises. In order the family company to successfully, work should be accorded with climate change and the family business because these two systems are complementary.

The appearance of this paper is the role of management in the family enterprises who are members of the family and the role of managers who are not family members. The purpose of this paper is to show how managers operate in daily operations or operations managers who are family members and the interests and operations managers who are external consultants.

A key factor for the development of the family company and its successful functioning of the market is harmonization of interests of the family and business interests. If the interests of the family and business interests complement, then we say that there are no differences. But mostly family rules win and maintain a business. If you want to overcome this, it is necessary to engage experts and professional managers who are not family members.

KEYWORDS: family enterprises, family interests, business interests, managers, external consultants, harmonization.

JEL CLASSIFICATION: M29

²⁶ Head of Department, Agency for Promotion of Entrepreneurship, e-mail: nikolovski.ljubisa@gmail.com

²⁷ Assistant, University of Tourism and Management Skopje, e-mail: m.radevska@utms.edu.mk

²⁸ Treasurer, UNI Banka Bitola, e-mail: elizabetapetkovska@gmail.com

1. INTRODUCTION

Family enterprises represent the most common form of business organizations in the world. The working model of family enterprises is innovative and forward looking tending towards a better realization and creation and maintenance of existing jobs. Developments of small and medium-sized family enterprises are of great importance for the national economy not only in employment but also in the democratization of society.

Family businesses (small, medium or large) are an important component of the economy. In EU the family businesses, are 60% of all businesses²⁹. According to the results of research that has been implemented the European Commission in Europe, compared with the US and Japan, it is characteristic the presence of numerous small enterprises. A number of companies owned or managed by one family. The intensive development of entrepreneurship, on the other hand results in thousands medium and small family enterprises. Two-thirds of family businesses survive the second generation change, while only a fifth manage to live third generation. Hence the business can rightly be called a family business. Thus, Example 12% of family businesses are held to the third generation and only 3% make it to the fourth generation.

2. DEFINING THE FAMILY BUSINESS

Family businesses are managed with the family and the business. Hence, domestic undertaking means an undertaking in which the majority of votes in the hands of the family under whose control the company, including the Founder who still intend to pass on the company to his successors.

According to the proposal of the expert group³⁰, the business can be defined as a family business if:

- most of human decision-making in the hands of the founder or persons who purchased the majority of the enterprise,
- most of the rights of making direct or indirect,

²⁹ Zvezdan Djuric - A small family business in the function of socio - economic development, Socioeconomic -The Scientific Journal for Theory and Practice of Socioeconomic Development, Vol. 1, No. 2, pp. 155-165, December 2012 UDK: 658 114: 330.34, JEL: D13, D19, F63

³⁰ European Commission, 2009

- at least one member of the family formally involved in enterprise management,
- Enterprises on the stock market - if the founder, owner of part of the company or his / her family members or heirs own at least 25% of decision-making rights.

3. SWITCHING THE AREAS OF PROPERTY, WORK AND FAMILY

The family business is a dual system that is composed of both family and business. Therefore, these two systems overlap that often prevents the creation conflict since each system has its own rules, roles and requirements of its members. Family system is a stealth system, one in which significant loyalty, care and love. On the other hand, business system is an unemotional system based on contract. In this system there are certain rules and roles (the role of manager, employee, owner, etc.) that carry specific responsibilities and expectations.

Overlapping areas of property, work and family is an obvious area - a generator of conflicts, conflicting interests, goals, strategies, etc. Some families prefer having family problems related to problems in business, and some other families do back. Such families are trying to balance those two (antipodes) contrasting types of problems³¹.

Each company is constantly faced with problems related to enhancing the competitiveness and strengthening the innovation capacity. Family businesses have additional problems related to:

- harmonization of activities in the property, family and business aspect,
- the importance of timely preparations for the transfer of ownership and management of the family business,
- need for specific entrepreneurial education for running family enterprises, and
- Else.

³¹ Dejan Pendev, family-owned business in the chance for investment and employment, Economic Institute - Skopje, Association for Sustainable Development - Skopje Foundation "Friedrich Ebert" office Skopje, Proceedings, 2003, pp. 84-99.

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The most successful family businesses are those enterprises that have:

- clearly defined limitations of the three main areas - property, family, business,
- greater harmony in the family,
- Appropriate strategic plans.

In addition, family businesses are not burdened with short-term goals but look to the future, a good pass in crisis. On the other hand, the most common reasons for contention or destruction of the family company are:

- disagreement with future strategies
- untimely resolving tensions and conflicts and
- Cases of death, disability and / or divorce.

4. MANAGEMENT IN FAMILY BUSINESSES

The success and growth and development of family businesses today often depends on the quality and efficiency of non family managers. In the survey carried out by "Financial Times" the successful family business over 200 years old, asked, "What influenced your company to survive and grow all these years and to survive transfers across generations", the answers were:

- exceptional quality product / service,
- reinvestment of profits
- ability to exclude incompetent family members,
- desire and willingness to employ managers who are not part of the family, who own unique set of skills and values³².

Studies have shown that factors: loss of supervision, lack of clearly defined rules for company members or family and the way specific problems are understood and interpreted, suggest that the family company is focused on the family, ownership or management. Family rules usually win and maintain a business. If you

³² Zvezdan Djuric - A small family business in the function of socio - economic development, Socioeconomica -The Scientific Journal for Theory and Practice of Socioeconomic Development, Vol. 1, No. 2, pp. 155-165, December 2012 UDK: 658 114: 330.34, JEL: D13, D19, F63,

want to overcome this, it is necessary to engage experts and professional managers who are not family members.

Questions addressed before any undertaking, whether it comes to family businesses or those who are not family property³³:

- What are the needs of the market,
- find what has competition
- whether the changing attitudes of buyers
- whither progress of technology,
- what is happening with the development of new products,
- Are there opportunities to ensure the necessary resources,
- where globalization results of operations,
- What are the implications of increased efficiency, effectiveness and innovation, and
- else.

In the following text we single out some of the characteristics of owners of family businesses:

- Long-term thinkers,
- caring community in which they operate,
- work so as to leave the family company to the heirs in the best possible condition

5. METHODOLOGY

The subject of this research is the role of management in the process of harmonizing the diversity of interests of the family and business interests in family enterprises.

Problem of research is whether the manager who is a family member advocates more tasks in the family company or a manager who is not a member of the family will better perform the task that has been set.

³³ Zvezdan Djurić – Mali porodični biznis u funkciji društveno – ekonomskog razvoja, Socioeconomica –The Scientific Journal for Theory and Practice of Socioeconomic Development, Vol. 1, N° 2, pp. 155 – 165, December, 2012, UDK : 658.114 :330.34, JEL : D13, D19, F63

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Occurrence of this research is the role of managers who are members of the family and the role of managers as external members.

As we know the family and business are so closely related to decision making can greatly depend on the interest that he has family. Often occur certain conflicts within the family that can easily be transferred to the company and vice versa if there are disagreements within the work can be easily transmitted in the family. Therefore we say that these two processes of family and business complement and connected.

5.1 Sample survey, techniques and measuring instruments³⁴

The survey was conducted on a representative number of 134 respondents. The target groups analyzed within this research were managers and employees. The techniques used for data collection and description were surveying and scaling. The methods used for data analysis were: method of survey; method of analysis and synthesis; method of abstraction and concretization; comparative method; descriptive method. As measuring instruments in this research we used two questionnaires (for each target group of respondents), and scale of views. The review of the questions and the statements of both target groups are given in Appendix 1.

The following text provides the basic data for enterprises and respondents included in the survey:

Basic data for enterprises:

| Type of enterprise | Number of companies | % |
|--------------------|---------------------|--------|
| Manufacturing | 8 | 66,67 |
| Service | 4 | 33,33 |
| Total: | 12 | 100,00 |

| % Ownership | Number of companies | % |
|-------------|---------------------|-------|
| 100 | 6 | 50,00 |

³⁴ Elizabeth Petkovska, Managing the interests of the family versus business interests in family businesses, Master thesis, Skopje, 2015

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| | | |
|--------------|----|--------|
| 51 to 99 | 5 | 41,67 |
| less than 50 | 1 | 8,33 |
| Total: | 12 | 100,00 |

| Number of employees in the surveyed companies | Number of companies | % |
|---|---------------------|--------|
| to 9 employees | 10 | 83,33 |
| 10 to 50 employees | 1 | 8,33 |
| 51 to 250 employees | 1 | 8,33 |
| Total: | 12 | 100,00 |

Basic data about the persons completing the questionnaire:

| Detailed status of participants in family enterprises | Number of respondents | % |
|---|-----------------------|--------|
| Founders | 18 | 13,43 |
| Top management | | |
| family members | 12 | 8,96 |
| non-members of the family | 5 | 3,73 |
| Middle management | | |
| family members | 13 | 9,70 |
| non-members of the family | 7 | 5,22 |
| Employees | | |
| family members | 21 | 15,67 |
| non-members of the family | 58 | 43,28 |
| Total: | 134 | 100,00 |

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| Level of Education | Number of respondents | % |
|---------------------|-----------------------|--------|
| thoroughly | 6 | 4,48 |
| secondary | 83 | 61,94 |
| higher | 7 | 5,22 |
| high | 32 | 23,88 |
| Masters / Doctorate | 6 | 4,48 |
| Total: | 134 | 100,00 |

| Sex | Number of respondents | % |
|--------|-----------------------|-------|
| Man | 83 | 61,94 |
| Women | 51 | 38,06 |
| Total: | 134 | 100 |

| Age of respondents | Number of respondents | % |
|--------------------|-----------------------|--------|
| to 30 | 57 | 42,54 |
| 31 to 45 years | 45 | 33,58 |
| over 45 | 32 | 23,88 |
| Total: | 134 | 100,00 |

6. RESULTS

Focus of this paper was our hypothesis: The capacity of managers at all levels, and hiring professional managers which are non-family affect the proper alignment of the diversity of interests of the family and business interests.

- **Indicators:** Answers of the questions or statements related to the capacity of managers at all levels and hiring professional – non family managers.
- **Independent variable:** The capacity of managers at all levels and hiring non family managers.

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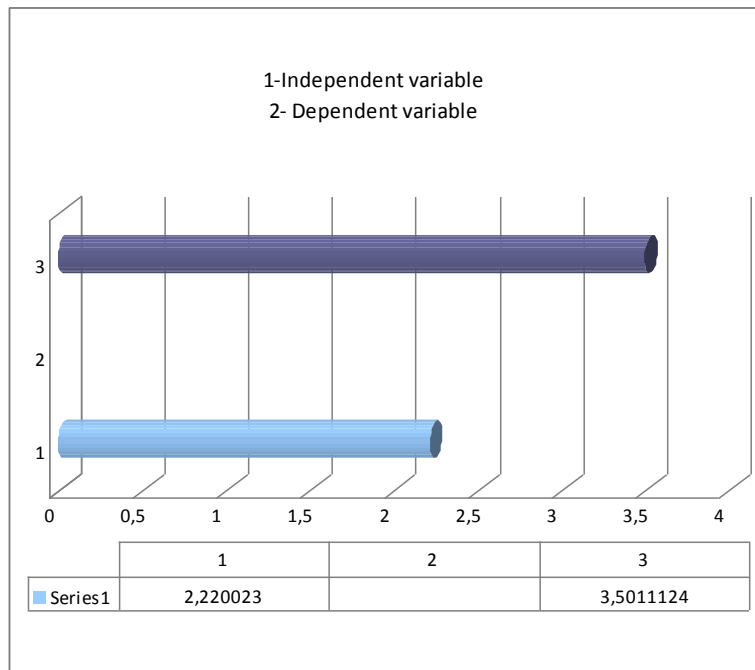
- **Dependent variable:** Adequate harmonize the diversity of interests of family and business interests.

The hypothesis in this paper treats the capacity of managers at all levels, and hiring non family professional managers and how it affects the proper alignment of the diversity of interests of the family and business interests.

According to the survey, attitudes of managers and employees about the capacity of managers at all levels, and hiring non family professional managers (independent variable) cover all the issues of questionnaire 21, 22 and 23 for the employees, and 21, 22 and 23 for the managers. The average value of the independent variable is 2.22, which means better results and shows that employees and managers have a sufficient degree of capacity.

The dependent variable refers to the views of employees and managers for the proper alignment of the diversity of interests of the family and business interests. The dependent variable in the same table is presented with questions or statements No.24, 25 and 26 for employees and 24, 25 and 26 for the managers of the questionnaire. The average value of the independent variable is 3.50, that is the scale of values is seen as a good result (Figure 1, Table 1).

Figure 1: Qualitative analysis of our hypothesis



Source: Elizabeth Petkovska, Managing the interests of the family versus business interests in family businesses, Master thesis, Skopje, 2015

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From the previous analysis it can be concluded that the independent and dependent variable on the scale of values rang between 2 and 4, which means they have relatively marked overlap and give good results which prove the hypothesis.

7. CONCLUSION

Based on the obtained results we can conclude that family and business are two processes that complement successful. Family businesses contribute to the development of the country. They have considerable impact in countries that are developing. The increased level of professional management of family businesses usually ensures success, harmony and sustainable growth and development.

Frequent are the situations when family businesses are not inherited and close. Therefore, efforts should be made family businesses to be more frequently transmitted to future generations. It is the main task of the owner of the family business to analyze which family member is the most capable, qualified and skilled to inherit the business.

The existence of good communication between family members better reflect the operation of the business that gives good results and great satisfaction. In order to avoid conflicts arising from the family members it is very important to find a compromise so that such changes will not affect the family company.

The research shows that if the owner has good deploy of all the family tasks that are typical of their knowledge and abilities, the family company successfully works and achieved positive results are achieved.

In order to be well run family company should pursue all family members and do not allow to arise conflicts and disagreements. Well-organized structure in the enterprise means good achievement for all family members and other employees who are not family members.

We can summarize that if we love the idea of setting up their own business to be successfully implemented, you must explore the market and the risks that may arise. With good organization and support from family each business idea can be realized.

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APPENDIX 1: Questions and statements of surveyed target groups

| No. | QUESTION / STATEMENT |
|-----|--|
| 1 | Whether pre-employment in this family enterprise you had experience at least one year in another company? |
| 2 | Is your company invests in specialized training and mentoring for managers at all levels? |
| 3 | Institutional support in terms of knowledge transfer and training meets the needs of your family enterprise? |
| 4 | Specialised training and mentoring for running family businesses increase the competence of managers operating efficiencies. |
| 5 | Specialised training and mentoring for running family businesses increase the competence of managers operating efficiencies. |
| 6 | Do you consider that the participation of training employees about the basic principles of family businesses will increase their capacities? |
| 7 | Does your company invest in adequate training and knowledge transfer of its duties primarily employees who are members of the family? |
| 8 | Employees who are not family members are involved in decision making? |
| 9 | Whether family tensions and conflicts are an obstacle to potential investors outside the family company? |
| 10 | Does your company owner is also the first manager? |
| 11 | Whether family tensions are transmitted in daily operations? |

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| | |
|----|--|
| 12 | Are there clearly defined and established rules and procedures for the conduct of all employees of the family company? |
| 13 | There is a desire and willingness to allow outside investors to invest in your family enterprise. |
| 14 | The owners understand that the ownership and management of the company are two separate things. |
| 15 | Family rules win and maintain a business. |
| 16 | Because solving conflicts between family members related to the management, it is useful state through its financial institutions to subsidize expert assistance for development / preparation of a family protocol? |
| 17 | Does your family enterprise practiced Institute - a family council? |
| 18 | Whether the interests of the family act tense relations / communication among the staff? |
| 19 | Strengthening information and communication among staff members and non-members of the family is useful in the field of relationship / conflict between workers and employers. |
| 20 | In the company held regular meetings where family members have equal opportunities to communicate with other members and how to operational problems and plans for development in the long term. |
| 21 | Whether in managing the family company includes members who are not part of the family? |
| 22 | Whether in making decisions, the interests of the family adversely affect the business interests? |
| 23 | Does your company have problems that occur because of reconciliation of family, ownership and business aspect? |
| 24 | The employment of foreign professional managers will contribute to growth and sustainable development of the family company. |
| 25 | The capacity of managers is aimed at harmonizing the interests of family and business. |
| 26 | Problems that occur because of reconciliation of family, ownership and business aspect outperform and engagement of external consultants. |
| 27 | Has your organization has established criteria for the progress of employees and managers? |
| 28 | Whether in the professional running of the family business to take account of future generations? |
| 29 | Establishing criteria for progress have a direct impact on the efficient management of the organization and the results of its operations. |
| 30 | Family businesses generally look to the future. |

Source: Elizabeth Petkovska, Managing the interests of the family versus business interests in family businesses, Master thesis, Skopje, 2015

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Table 1: Qualitative analysis of our hypothesis

| | Independent variable | Investment in the creation of appropriate measures at the operational level | | | | | | | | |
|-----------|----------------------|---|-----------|-----|-----------------------|---------|---------------|---------|-------|-----------|
| | Question number | Yes | Sometimes | Not | Number of respondents | Yes x 5 | Sometimes x 3 | Not x 1 | Total | Points |
| employees | 21 | 39 | 17 | 23 | 79 | 195 | 51 | 23 | 269 | 3,4050633 |
| employees | 22 | 5 | 18 | 56 | 79 | 25 | 54 | 56 | 135 | 1,7088608 |
| employees | 23 | 8 | 18 | 53 | 79 | 40 | 54 | 53 | 147 | 1,8607595 |
| managers | 21 | 27 | 15 | 13 | 55 | 135 | 45 | 13 | 193 | 3,5090909 |
| managers | 22 | 1 | 6 | 48 | 55 | 5 | 18 | 48 | 71 | 1,2909091 |
| managers | 23 | 4 | 7 | 44 | 55 | 20 | 21 | 44 | 85 | 1,5454545 |
| | | A set of points: | | | | | | | | 13,320138 |
| | | A set of points / number of questions: | | | | | | | | 2,220023 |
| | Dependent variable | Terms of creating concepts for successful institutional support | | | | | | | | |
| employees | 24 | 27 | 44 | 8 | 79 | 135 | 132 | 8 | 275 | 3,4810127 |
| employees | 25 | 43 | 27 | 9 | 79 | 215 | 81 | 9 | 305 | 3,8607595 |
| employees | 26 | 19 | 45 | 15 | 79 | 95 | 135 | 15 | 245 | 3,1012658 |
| managers | 24 | 21 | 27 | 7 | 55 | 105 | 81 | 7 | 193 | 3,5090909 |
| managers | 25 | 30 | 21 | 4 | 55 | 150 | 63 | 4 | 217 | 3,9454545 |
| managers | 26 | 13 | 32 | 10 | 55 | 65 | 96 | 10 | 171 | 3,1090909 |
| | | A set of points: | | | | | | | | 21,006674 |
| | | A set of points / number of questions: | | | | | | | | 3,5011124 |

Source: Elizabeth Petkovska, Managing the interests of the family versus business interests in family businesses, Master thesis, Skopje, 2015

UDC: 334.72.012.63/.64:658.14

THE START-UP PHASE IN SME DEVELOPMENT: MAIN CHALLENGES,
MOTIVES AND FINANCING OPPORTUNITIES

Klimentina POPOSKA, PhD¹

Blagoja NANEVSKI, PhD²

Elena MIHAJLOVSKA, MSc³

ABSTRACT

Entrepreneurship has been widely recognized as major contributor to social economic growth through driving competition, encouraging innovation and creating employment opportunities. The statistics show that majority of SMEs fail to overcome the pressing problems and fail to survive beyond their fifth year of establishment, while 20% exit in their first year (Knaup and Piazza 2007 cited Marzocchi et al, 2012: p.13). Lack of financial capital emerges as one of the most pressing problems, particularly after the hit of the financial crisis which has caused substantial contraction of the capital market. The paper further analyses different motives and success factors of start-ups and presents alternative financing alternatives with an overview of the start-up investment market statistics.

KEYWORDS: SME, Start-ups, SME financing, SME debt financing, SME Equity Financing

JEL CLASSIFICATION: M13, G010

¹ Professor, Institute of Economics-Skopje, University Ss Cyril and Methodious-Skopje, e-mail: klimenti@ek-inst.ukim.edu.mk

² Professor, Integrated Business Faculty

³ Professor, University of Edinburgh, Business School, current: Coordea Outsourcing

INTRODUCTION

Cantillon, was one of the first to introduce the entrepreneur as an actor in the economy in 1755 and he described the entrepreneur as a risk-taker who "purchases inputs at a certain price and sells outputs at an uncertain price" (Carlsson et al 2013: p.916) The role of the entrepreneur was further analyzed by Jean Baptiste Say who emphasized the ability of the entrepreneur to shift resources from less productive areas to a higher productivity and greater yield (Sobel, 2008). However, it was Schumpeter (1950) who placed the entrepreneur in the centre of growth and change underlining the innovative side of entrepreneurship. He described the entrepreneur as a person who breaks the system of equilibrium by introducing new combinations to the market (Caird 1990). New business creation in terms of start-up activity is one interpretation of Schumpeter's "creative destruction." Scholars have supported this view confirming that entrepreneurship can be better understood through the study of start-up activity (Gartner 2001, Welsch 2004). New entry means offering a new product to an established market or offering an established product to a new market. Either way it is concerned with the creation or birth of a new organization (Hisrich et al, 2010: p.66). Finally, according to Klapper et al (2010: p.3), "Economic growth is driven by new entry (start-up), rather than by growth of existing firms". Small management enterprises (SMEs) have emerged as agents of entrepreneurship catalyzing the benefits through the commercialization of business ideas. However, the biggest challenge for entrepreneurs is taking the step from idea to action. The start-up phase is also considered to be the riskiest period of the SME business cycle.

The paper at hand tackles and analyses the motives, success factors and challenges of entrepreneurs in this initial phase. Lack of financial capital emerges as one of the most pressing problems, particularly after the hit of the financial crisis which has caused substantial contraction of the capital market. The paper further presents alternative financing alternatives and gives an overview of the start-up investment market statistics. The approach provides better understanding of entrepreneurs' reasons to start a business and the obstacles they face. Finally, it helps them better understand the financing opportunities they have beyond bank

credits and loans. The aim is diversification of the sources of capital for minimizing the risk and increasing the chances for success of their start-ups.

1. CATEGORIZING TYPES OF START-UP FIRMS

The literature has identified three types of start-up firms: salary substitute, lifestyle and entrepreneurial start-up firms (Barringer and Ireland, 2012: p.44). However, the types of start-ups often overlap and each start-up usually falls under more than one category. Nevertheless, the division helps to better understand the motives and rewards for engagement in start-up activity.

Salary-substitute start-ups are usually micro enterprises which offer common products and services to consumers by providing the owner with a regular pay-check (Ibid). The start-up activity can often emerge in response to lack of job opportunities on the market, especially in a recessive economy. The owners of such start-ups lack most of the typical entrepreneur's characteristics identified by the trait approach (Poscke, 2012). These type of start-ups are less innovative and have no growth-strategies. Given that majority of the enterprises in Europe are micro-firms, we should not undermine the importance these firms have in the job creation.

Lifestyle start-ups enable the entrepreneur to pursue his dreams by making a living out of his/hers hobbies. Good example is the opening of a yoga studio by a passionate yogi. In this case the passion of the entrepreneurs is translated into a business idea. The passion for food and cooking can be transformed into cooking school or restaurant and so on (Barringer and Ireland, 2012: p.44). This category does not necessarily produce high income for the owner, but has other non-financial rewards of a more profound nature. Mariotti and Glackin (2012: p. 6-10) list the following non-financial rewards for start-ups' owners:

- *Control over time* enables the owner to structure his schedule according to his own habits. However, bear in mind that sometimes starting a business takes 24 hours dedication, regardless of the timetable flexibility.
- *Fulfillment* comes directly from the passion entrepreneurs have for their business idea, especially if that's something of a great interest of them. Given the challenging process of starting a business, passion may be the key motive for success.

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- *Control over working conditions* enables the entrepreneur to create a working environment reflecting his values. This can be an open-space offices or environmentally responsible company which uses only recyclable office materials (Mariotti and Glackin, 2012: p. 8).

Entrepreneurial start-ups are the most innovative types of enterprises. They bring new products and services to the market; generate innovation and economic growth. Opportunity driven entrepreneurs usually start entrepreneurial businesses which create value and worth for the customer (Barringer and Ireland, 2012: p.44). In addition to pursuing their dream, owners of these start-ups are also driven by financial motives:

- *Creation/Ownership* relates to the time entrepreneurs invest to create the innovative product which they believe will survive and become profitable. Moreover, they see the ownership of a business as a key to accumulating wealth, either by creating a continuing stream of earning or by eventually selling the business at higher market value.
- *Control over compensation* provides the entrepreneur with the freedom in decision making whether they will be paid by regular salary, wages per hour or in terms of profit/ sales commissions (Mariotti and Glackin, 2012: p. 6-10).

2. MOTIVES, SUCCESS FACTORS AND CHALLENGES FOR START UPS

Traditional employment opportunities do not offer the flexibility in terms of time and space needed for a creative entrepreneurial mindset. Traditional job can even hinder the creativity potential of an entrepreneur. According to Barringer and Ireland (2012: p.33-35), the primary reasons for engaging in start-up activity can be the desire to be your own boss or the urge to follow your own ideas and dreams. Although, financial motives and rewards are not excluded, they usually come in later stages of development.

There are certain attributes of the entrepreneurs and the actions they take which can either support or halt the chances of success for a start-up. For example, Audretsch and Fritsch (1999) found *previous working experience in SMEs* to be crucial for success of start-up activity in capital intensive industries. Moreover, Fritsch

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and Falck (2007) refer to the working population in SMEs as pool for potential entrepreneurs. However, owners without previous experience can gain valuable insight in particular industry and SME management through various training programs and additional sources of information (Table 1) Katz and Green (2011: p.156) identify twelve effective routes to success for start-ups:

Table 1. Effective routes for start-up success

| Strategies for success of start-ups | |
|-------------------------------------|--|
| ✓ | Start the business in a business incubator. |
| ✓ | Take part in a mentoring program. |
| ✓ | Have a detailed start-up budget. |
| ✓ | Produce a product or service for which there is a proven demand. |
| ✓ | Secure outside investment |
| ✓ | Start with more than one founder. |
| ✓ | Have experience managing small firms. |
| ✓ | Have industry experience. |
| ✓ | Have previous experience of creating a start-up business. |
| ✓ | Choose a business that produces high margins. |
| ✓ | Start the business with established customers. |
| ✓ | Build trust in your “story”. |

Source: Katz, J., and Green, R., Entrepreneurial small business, McGraw Hill Irwin, 3rd edition, 2011: p.157.

While lack of experience in the field can be substitute with incubators and mentoring programs, careful pre-planning and thorough market analysis are two tasks entrepreneurs cannot avoid. In addition, well developed business plan has been frequently mentioned as predominant factor for start-up success. Most importantly, the plan needs to have reachable goals and measurable objectives. This will provide the entrepreneur with clear vision of the future and better chances for pitching his idea with potential investors.

In the early stages, financial resources are needed mainly for capital investments and development of products. The SME has started operating on the market, but has not yet secured sales or positioned its company against the competition. In

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addition, the owners usually have scarce experience and knowledge in operating a business in a specific sector.

Table 2. Start-up challenges

| Challenges in the start-up phase |
|---|
| • Lack of resources |
| • Lack of experience |
| • Lack of knowledge about the business |
| • Lack of knowledge by customers about the products |
| • Lack of high skilled workforce |
| • Choosing the wrong location |

Source: Shuklev, Management of small business, Faculty of Economics, Skopje, 4th edition, 2006: p. 217

The success of the SME depends highly on the owner's capability to react quickly and overcome the indicated initial obstacles. Successful stories suggest getting help from family, friends or industry contacts for survival. Well-established network is essential for the success of any firm, small or big (Katz and Green, 2011: p.638).

Brand recognition and steady increase in sales characterize the shift from the entrepreneurial phase towards a management led organization. Many SMEs earn their first profits in the success stage. After this stage the SME would either enter into resource maturity, the take off stage or the termination process, depending on how well they fight the growth challenges. Table 3 summarizes the main challenges for growth.

Table 3. Challenges of growth for start-ups

| Growth challenges |
|---|
| • Lack of strategic planning |
| • Lack of efficient management |
| • Lack of development and improvement of products |
| • Lack of quality improvement |
| • Lack of external financial sources |
| • Lack of export-oriented strategy |

Source: HMSO London (1990) cited Shuklev, Management of small business, Faculty of Economics, Skopje, 4th edition, 2006: p. 69

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From one side, retaining existing customers in the expansion and growth phase should be of highest priority to entrepreneurs. Showing personal interest in customer needs and constant improvement and development of products can help SMEs avoid customer complacency (Katz and Green, 2011: p.639). On the other side, the growth of the firm in employees, operation and even markets implies a need for formal organizational structure. Entrepreneurs who fail to set procedures and policies may encounter difficulties managing the growth of the firm. However, these procedures should not be "set in stone". Too rigid and strict protocols can halt the creativity potential of an initially innovative start-up (Barringer and Ireland, 2012: p.470).

3. CHALLENGES CONCERNING START-UP FINANCING

Although each business is distinctive, majority of start-ups follow the same route in the quest of capital for their business idea. The initial funds invested at the idea stage are always the personal savings of the entrepreneur. This will gain trust with future investors that the entrepreneur believes in the business idea and its potential to generate earnings.

The *3F money* coming from the founder, family and friends is the second most often used source of capital in the start-up phase (Fiti, 2007: p.124). The investments from friends and family can also include outright gifts, forgone or delayed compensation or reduced or free rent. Priority when borrowing money from the inner circles of the family should be business-like manner, honesty and openness about the potential and risks the business bears (Mariotti and Glackin, 2012: p.410). Given the importance of networks, entrepreneurs should avoid possible damages to both personal and business relationships, especially in the very early stages of establishment.

The entrepreneur can also use cost saving strategies to avoid external financing.

Bootstrapping is an alternative source of capital for smart entrepreneurs implying cost saving strategies in the form of sharing offices or using second-hand equipment (Barringer and Ireland, 2012: p.350).

THE START-UP PHASE IN SME DEVELOPMENT: MAIN CHALLENGES, MOTIVES AND FINANCING OPPORTUNITIES

Table 4. Bootstrapping as source of capital for start-ups

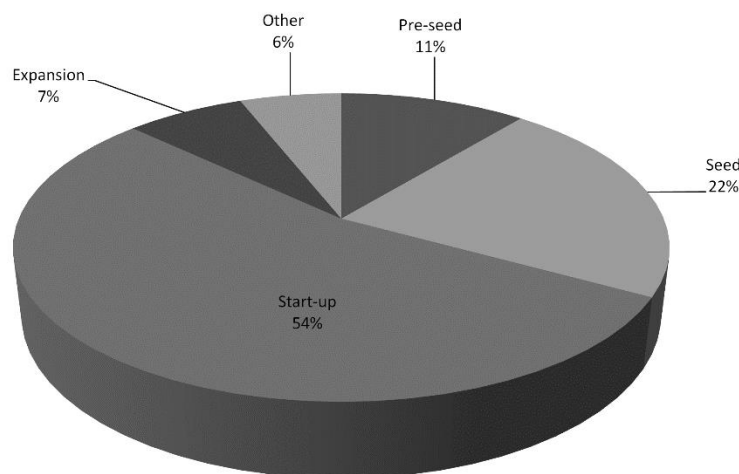
| Cost-saving strategies for start-ups | |
|--------------------------------------|---|
| ✓ | Using second hand equipment |
| ✓ | Coordinating purchase with other business |
| ✓ | Lease equipment instead of buying |
| ✓ | Obtain payments in advance from customers |
| ✓ | Minimize personal expanses |
| ✓ | Avoid unnecessary expanses |
| ✓ | Purchase prudently, through discounts |
| ✓ | Share office space |
| ✓ | Hire interns |

Source: Barringer and Ireland, Entrepreneurship, Pearson, 4th edition, 2012: p.350

Even though personal funds and financing through cost-cutting and saving money strategies is encouraged, these sources of capital are very limited and rarely satisfy the financial needs of SMEs especially in the start-up stage when cash flows are unstable.

Business angels (BA) as a form of equity source of capital have gained importance providing €7.5 billion annually for European SMEs (EBAN, 2014b). In Europe solely, there were 460 networks of BA in 2012 which experienced growth of 100% since 2005, when there were only 228 (EBAN, 2012). Most importantly, the majority of the funds by BA are invested in the start-up phase (Graph 1).

Graph 1. Business Angels investment by development stage, EU-20, 2013



Source: Statistics Compendium, EBAN, 2014a: p.8

THE START-UP PHASE IN SME DEVELOPMENT: MAIN CHALLENGES, MOTIVES AND FINANCING OPPORTUNITIES

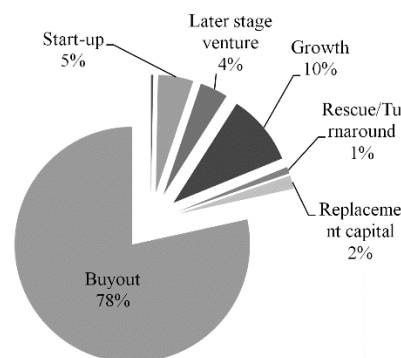
BAs are attracted by unique business ideas usually in a niche market. Investors retain percent of the profits and usually gain access to ownership rights which explains their appetite for innovative products with high growth potential (Katz and Green 2011: p.499-500). Nevertheless, they have some advantages which make them extremely attractive among entrepreneurs (Kraemer-Eis, 2014: p.28):

- BAs are willing to provide smaller investments for start-ups, in contrast to the minimum \$1 million that most venture capitalist require.
- BAs are geographically more dispersed, and often invest in local markets,
- BAs are very 'hands-on' investors.

BAs together with the financial capital bring expertise and networks from the business community especially in the given sector. Motivated by potential high earnings of the company, they are willing to provide mentorship and assistance. Given the fact that lack of resources was major challenge for start-ups, entrepreneurs should really be informed about the options many business angel associations offer.

Venture capitalists is another form of equity financing more frequently used for financing the growth of already established enterprises. However, venture capitalists quite often fund so called "home run" start-ups which although highly risky have a huge expected return on investment (ROI). Examples of such start-ups are: Google, Cisco Systems, eBay and Facebook. In practice, venture capitalists usually turn down many solid entrepreneurial proposals which do not fulfill their requirements for innovativeness and exponential growth (Barringer and Ireland, 2012: p.356-360).

Graph 2. Investment by stage in the EU venture capital market, 2013



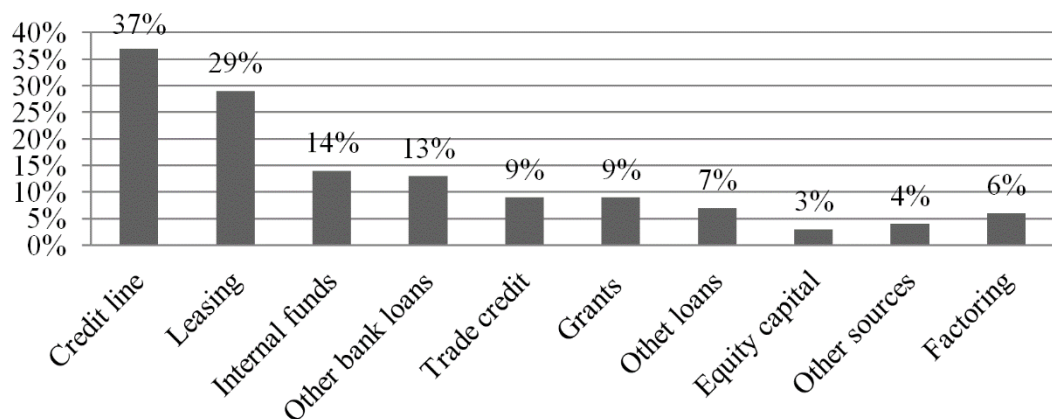
Source: Adapted data from EVCA: <http://www.evca.eu/research/activity-data/annual-activity-statistics/>, Accessed on 28 April, 2016

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The statistics from the graph show that most of the venture finance goes into buyout funding provided to help one company acquire another whereas the start-up and seed capital are represented with only 5% in the total venture capital market. Moreover, VCs make only minimum investments of 1 000 000\$ and require ROI of even 50% when investing at the early-stage of development (Hisrich et al, 2010: p348).

The business cycle theory identified debt financing as source of capital used in the later stages of business growth. However according to latest data on access to finance, debt financing was the most common use of capital used among SMEs (Graph 3).

Graph 3. Sources of capital used by SMEs, EU-28, 2014



Source: Adapted data from SAFE, 2014,
<https://www.ecb.europa.eu/stats/money/surveys/sme/html/index.en.html>,
Accessed on 28 April, 2016

Note that 75% of the enterprises surveyed in SAFE were start-ups not older than two years and only 7% were SMEs with more than five years since their establishment. The data contrasts the business cycle theory drawing our attention on debt financing for start-ups. For that reason, this section provides additional information on the different types of credits and the conditions under which they are used by SMEs.

The first disadvantage of *debt financing* is their interest-bearing instrument. In other words, a contract between the entrepreneur and the lender (person or

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institution) obliges the entrepreneur to repay the loan with a certain interest. For that reason, lenders prefer candidates with strong cash flows and low leverage, rather than innovative, high growth opportunities. The most common provider of loans and credits are commercial banks which primarily evaluate SMEs creditworthiness depending on their history of payments and healthy balance sheets. In addition, tangible guaranty or collateral is required for credit approval (Barringer and Ireland, 2012: p.363). Debt financing as source of capital provides SMEs with the needed financial resources mainly through bank loans which can provide both, short-term and long term financing for different purposes (Hisrich et al, 2010: p.313-314).

Table 5. Types of bank loans

| Asset base loans | Cash flow financing |
|---------------------------|---------------------------|
| Accounts receivable loans | Installment loans |
| Inventory loans | Straight commercial loans |
| Equipment loans | Long-term loans |
| Real estate loans | Character loans |

Source: Adapted from Hisrich et al, Entrepreneurship, McGraw-Hill Irwin, 8ht edition, 2010: p.313-314.

Credit lines are mainly used for cash flow financing which is most frequently used by entrepreneurs. The arrangement ensures that a line of credit is available for usage upon the SMEs’ needs, for which the company pays a commitment fee and an interest on any outstanding funds borrowed by the bank (Hisrich et al 2010: p.). In 2014, during the period of April to June, 65% of SMEs in Denmark and Poland were using this type of financing, while Greece had the lowest percentage of 36%. On EU level more than half (53%) of SMEs have either used this source of capital or were planning to use it in near future (SAFE, 2014)

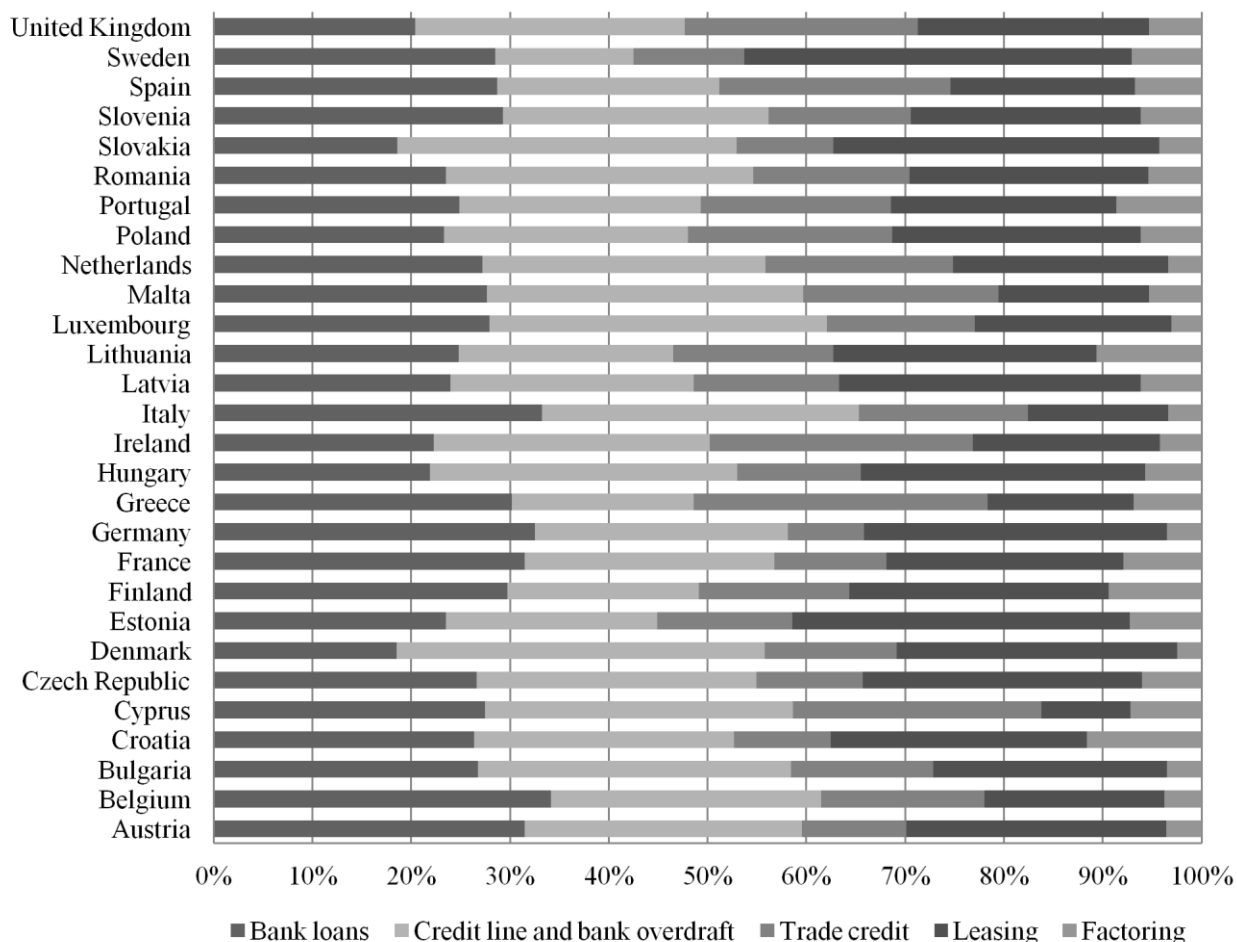
Leasing enables young firms to access facilities or equipment with little or no down-payment (Barringer and Ireland 2012). With the licensing agreement the owner of a piece of property allows an individual or business to use the property for a specific period of time in exchange for payments. Licensing is frequently used by entrepreneurs especially when growth strategies require additional space and

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technology. This alternative financing source is used by more than 40% of SMEs on EU and country level (Graph 4).

In the end we'll just mention *factoring* as an option for satisfying an urgent need for money. The SME sells its accounts receivable to a third party at a discounted price in exchange for cash. In the EU this is not a popular source of capital which represented with only 11% SMEs using it. Graph 4 provided data on the types of credits and alternative sources for capital used by SMEs in the EU.

Graph 4. SMEs Debt financing in the member countries, 2014



Source: Adapted data from SAFE, 2014,
<https://www.ecb.europa.eu/stats/money/surveys/sme/html/index.en.html>,
 Accessed on 28 April, 2016

The data from the member countries is consistent with the situation on EU level where bank loans and credit lines, as well as bank overdrafts provided more than 50% of the needed capital for SMEs, out of which 75% were start-ups no older than two years (SAFE, 2014)

4. RECOMMENDATIONS

BA and venture capitalist have been highlighted as best option for financing startups. However, in practice bank credits and loans dominate as a financial source, especially in the years after the financial crisis. This comes as surprise, given that banks become more rigorous in their approaches in credit analysis in the recessive period that followed, and we would expect for entrepreneurs to turn towards alternative financing opportunities like BA and VC. However, the graphs in the previous chapter do not support the expectations.

This indicates that despite the many benefits of alternative financing options, they have not been exploited enough by entrepreneurs. The reasons for such behavior can be found when we look at the situation from a more contextual point of view. Namely, in an environment characterized by financial distress, uncertainty increases, casting a shadow over the opportunities perceived by potential entrepreneurs. According to Robinson and Grayson's contextual approach the decision for opening a start-up is a complex process which is under the influence of global events, especially how such phenomenon is perceived by potential entrepreneurs. For that reason, future research must take into account, not only the general conditions in the environment, but also the cognition process of decision making by entrepreneurs.

The paper recommends the growth-oriented approach (Mason and Brown, 2014) where the focus is not on solely increasing the amount of VC and the number of start-ups, but on strengthening the links between each actor in the start-up ecosystem. Start-ups often lack of information even in the case of existence of many support programs. As mentioned before, the problem is that information although available remains scattered across different sources. The focus should not be only on fostering more start-ups, but linking them with customers, suppliers and other actors in the ecosystem which can provide resources.

Strengthen networks and information flows can be done with creating centralized SME portals for sharing knowledge. Simultaneously, development of trainings on internet skills and digital awareness will ensure that these portals are effectively used. The portals can have multiples purpose providing valuable

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information for both investors and entrepreneurs. There is an increasing need for improvement of financial literacy for both entrepreneurs and investors.

Training and skills development seminars are another way to empower the linkages and network in the entrepreneurial ecosystem. According to Argiles and Voigt (2009) [subsequently], trainings for business and presentations skills can help future entrepreneurs to deliver sound business propositions in front of potential investors. This would increase their chances for alternative funding from venture capitalist, business angels and crowd-funding organizations. In addition, the EC has made major efforts of Increasing awareness and expertise of VC and BA about technology and innovation in the entrepreneurial field is just as crucial for boosting start up activity and success.

The actions are expected to navigate the situation towards an improved general picture of business formation, empower entrepreneurs with better business skills and improve the perception of financing opportunities for BA and VC resulting in a better cooperation between all actors in the entrepreneurial environment.

CONCLUSIONS

The paper gave a better understanding of what triggers entrepreneurial activity and a brief overview of the non-financial motives which drive the start-up initiative. The paper analysed the main challenges of entrepreneurs in the establishment phase of the business idea which has been highlighted as the riskiest period for the survival of the business. Lack of resources, as well as knowledge and experience in business and the specific industry have been highlighted as one of the biggest reasons for failure of start-ups.

Finding and allocating sufficient financial capital has posed as the most pressing problem after the 2008 FC when banks become more rigorous in their approaches in credit analysis. In this situation, the theory suggested that start-ups would turn towards alternative sources of capital in the equity market. The theory highlighted BA for the start-up phase and venture capitalists in the growth period. However, the statistics from the graphs contradicted the theory and presented domination of bank credits and loans as source of capital for start-ups.

The fact show that the alternative financing options are not exploited enough by entrepreneurs. The reasons may be lack of networks between the actors, as well as lack information flows. Both, entrepreneurs and investors should be better informed and educated about the financing and investment opportunities, respectively. Finally, the paper recommended the growth oriented approach where the focus is not on solely increasing the amount of VC and the number of start-ups, but on strengthening the links between each actor in the start-up ecosystem. The concrete set of actions focused on strengthening of networks between all actors, creating positive perception about starting a business and development of business skills and innovative mind sets. The final conclusion of the paper is that the existence of business ideas on one side, and the support programs and resources on the other, are just as good as the linkages between them.

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USAGE OF ENTERPRISE RESOURCE PLANNING SYSTEMS IN SMALL AND MEDIUM ENTERPRISES IN THE REPUBLIC OF MACEDONIA

Violeta Stepanoska, MSc¹

Saso Josimovski, PhD²

Martin Kiselicki, MSc³

ABSTRACT

The subject of this research paper are the benefits and drawbacks in the usage of ERP (Enterprise Resource Planning) systems by SMEs⁴, the impact of ERP systems and the benefits of implementing such a system. Increased implementation of ERP systems greatly changes processes and the functioning of the organizations, create opportunities to better manage business processes, improves communication with internal and external business networks and the decision-making process. Despite the benefits of implementing an ERP systems companies often face certain difficulties, which are elaborated in detail in the paper.

In order to investigate how Macedonian SMEs are faced with the implementation of ERP systems, a questionnaire was conducted on 25 companies. The conclusion is that organizations across all industries in Macedonia and abroad effectively implemented ERP systems and have achieved significant competitive advantages through them.

KEYWORDS: ERP systems, business processes, automation, implementation, benefits

JEL CLASSIFICATION: O30, O33

¹ERP implementation, Gord Systems – Skopje, email stepanoska.v@gmail.com

²Full-time professor, Economic Faculty – Skopje, e-mail: sasojos@eccf.ukim.edu.mk

³Lecturer, Integrated Business Faculty, e-mail: martin.kiselicki@fbe.edu.mk

⁴ Small and medium enterprises

1. INTRODUCTION

In modern times, many organizations are faced with constant pressure caused by the rapid changes and the increased competitiveness on the market. For organizations to survive and increase their competitive advantage, they need to serve customers that seek innovative, high quality products with additional features and functionalities, while also possessing flexible business information systems. For this purpose, companies provide systems that are consumer-focused through an integrated supply chain with partners.

As a commercial product, ERP system is offered by many vendors specialized in this area. The ability of ERP to manage company resources efficiently and effectively by providing an overall integrated system for the purposes of informational processing, convinced both practitioners and managers, of the importance of integrated systems, which are not only valuable in large multinational organizations, but also in SMEs⁵. There are several factors that influence the success in the implementation of an ERP system, as follows: ERP team and structure, support from top management, commitment to the project, adequate business and legal systems, change management and culture, business process engineering (BPM) and adjustment, software development, testing and dealing with problems, monitoring and performance development. These factors are not limited only to SMEs, but also to large enterprises.

2. TYPES OF ERP SYSTEMS AND THEIR INFLUENCE ON THE ENTERPRISE

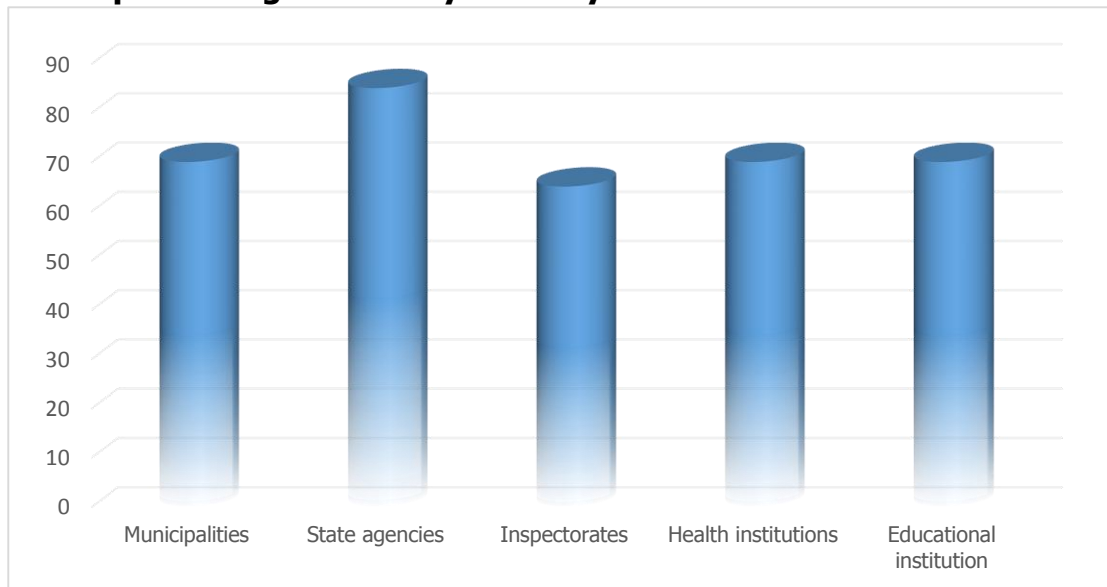
Enterprise resource management represents a business management system that consists of an integrated set of comprehensive systems which manages and integrates all business functions within an organization. These sets usually include several modules: finance and accounting, sales and distribution, material management and inventory, production, human resources, logistics, etc. (Chen, 2001). According to Pienaar (2008), ERP systems refer to computer systems that organizations use for business processes such as: management of customer orders,

⁵ Small and medium enterprises

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manage materials and inventory, production planning management, financial data etc. Kumar and Van (2000) define ERP systems as configuration packets of information systems that integrate information and an information-based processes within and between functional areas of the organization.

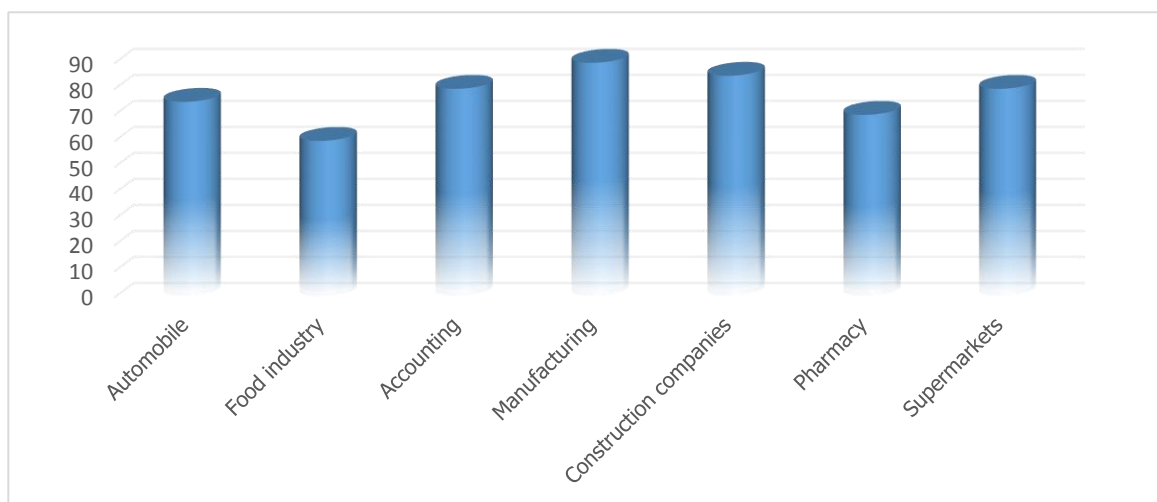
Graph 1. Usage of ERP systems by state institutions in Macedonia



Source: Authors own research (2015)

As it can be seen in Graph 1, multiple types of state institutions (over 60% in each category) in the Republic of Macedonia already use ERP systems. This is mainly due to the benefits that ERP systems can offer institutions of this scale.

Graph 2. Usage of ERP systems in the private sector



Source: Authors own research (2015)

The comparison is made in graph 2, where it can be noted that ERP systems are also used extensively in the private sector, where the largest users are manufacturing companies, followed by construction companies, supermarkets and accounting firms. However, there is very little evidence of ERP usage by small and medium enterprises, for which this paper aims to provide insight.

ERP systems automate and integrate the basic business processes in the organization, which allow employees to manipulate the various data, which represents the input and output of the company processes. By automating business processes, ERP makes them more efficient, less prone to errors, as well as faster and more reliable. With the integration of different business processes, ERP provides coherence, avoids duplication, discontinuity and people work in achieving the objectives in different sectors of the organization.

2.1 Implementation of ERP in SMEs

The adaptation of ERP systems in SMEs has been measured and discussed by many researchers. Van Everdingen (2000) researched the adaptation of ERP systems in 2647 European medium companies, which showed that 27% have installed ERP system in one or more functional areas since 1998. However, the process of implementation and adaptation varied between different countries and different types of industries. Scandinavian countries (especially Netherland) were far ahead in adapting ERP systems compared with other European countries. According to Van Everdingen, this was due to cultural differences which proved that these countries are characterized with a strong desire for innovation and diversity. Analyzing the types of industries, technological companies were at the highest level, unlike the food processing industry, which was falling behind. Several years later, in 2003, Olhager and Selldin (2003) reported that 75% of Swedish manufacturing companies have installed ERP systems.

2.2 Characteristics of different ERP systems and their implementation according to the manufacturer

Generally, ERP systems possess three main characteristics: cost, time and employee involvement. Additionally, it is necessary to change business processes if

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needed, to adapt them to the system. The five main reasons companies implement ERP systems in their organizations are as follows:

1. **Integration of financial information** – the CEO tries to recognize the overall business performance of the company. In the financial area, with ERP system you can determine future plans of action by recording revenue, analyzing sales in specific periods, and analyzing accounting information in various business units. ERP provides a true picture of the business and in this segment, questions are avoided, because each employee can access the system and get the necessary information in short time.
2. **Integration of consumer orders** – ERP systems are a place where every consumer is kept on track, including their interests, orders and other characteristics, up until the final stage of delivery. The benefit is all this information is included in one system, rather than it being scattered in various different systems which cannot communicate with each other. In this regards, companies can manage orders more easily, and coordinate manufacturing, inventory and shipping between different locations in concurrent times.
3. **Standardizing and speeding up the production process** – ERP systems allows standard methods for automation of the steps in the manufacturing process. By standardizing these processes and using a single, integrated computer system that saves time, costs can be saved and productivity can be increased in a significant manner.
4. **Reduction of inventory** – ERP facilitates the process of inventory management to be implemented in an easier way, improves the visibility of the entire process and allows tracking of all inventory within the company. Ultimately, it contributes to the reduction of inventory for production according to a predetermined method (for manufacturing companies), allowing better planning, final delivery to the customers and greater control of existing stocks.
5. **Standardizing the human resource management process** – Companies often disregard ERP systems as nothing more than a typical representation of the work in the company. Companies with multiple business

units encounter a problem in terms of monitoring employees, record keeping, communication and etc. ERP can help solve this problem in an efficient manner.

3. SELECTION PROCESS OF ERP SYSTEMS IN SMALL AND MEDIUM ENTERPRISES

Choosing an ERP system can represent a significant problem and an important decision in the day to day operations in any enterprise. In recent years, many ERP vendors have increased their focus on SMEs. Given the development of ERP systems, it is necessary to understand the way in which SMEs differ from larger organizations, as well as differences in the process of selection and implementation of ERP systems.

An empirical study was made (Gable и Stewart, 1999), to further analyze the selection process for ERP system. The study consisted of a questionnaire, with 36 questions concerning several independent variables such as number of employees, revenue, type of industry, the characteristics of the selection process, the size and structure of the responsible team for implementation. In all cases, the general manager of the IT department was contacted for the study. Out of 813 small/medium and large Austrian companies, 138 valid results were obtained. 22 responses (15,9%) were obtained from small and medium organizations. All other responses (116 questionnaires or 84.1%) were classified as large enterprises. A total of 29 different criteria for ERP selection were identified using the Delphi method.

The differences in the severity of some of the criteria that have been the subject of research among SME's to large enterprises are explained in table 1.1. The focus is on 7 variables, shown in percentages, in order to distinguish the gap between SME's and large enterprises. Each variable has two values, the percentage value in the first row refers to SME's, and the percentage value in the second row refers to large enterprises.

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Table 1.1 Importance of criteria in the selection process of ERP

| | | Very import. | Im- portant | Rather unimp. | Irre- levant |
|---|-----------------|--------------|-------------|---------------|--------------|
| Operating System Independency | Small/medium c. | 15.8 | 26.3 | 52.6 | 5.3 |
| | Large companies | 30.9 | 39.2 | 23.7 | 6.2 |
| Process Improvement | Small/medium c. | 31.6 | 47.4 | 21.1 | 0.0 |
| | Large companies | 52.0 | 40.8 | 6.1 | 1.0 |
| Market Position of Vendor | Small/medium c. | 16.7 | 55.6 | 11.1 | 16.7 |
| | Large companies | 35.1 | 48.5 | 14.4 | 2.1 |
| Customer and Supplier Needs | Small/medium c. | 5.3 | 10.5 | 26.3 | 57.9 |
| | Large companies | 12.4 | 20.6 | 27.6 | 39.2 |
| Internationality of Software | Small/medium c. | 31.6 | 10.5 | 26.3 | 31.6 |
| | Large companies | 37.8 | 30.6 | 19.4 | 12.2 |
| Increased Organizational Flexibility | Small/medium c. | 31.6 | 42.1 | 21.1 | 5.3 |
| | Large companies | 49.0 | 38.8 | 9.2 | 3.1 |
| Increased Customer Satisfaction | Small/medium c. | 26.3 | 42.1 | 26.3 | 5.3 |
| | Large companies | 45.4 | 35.1 | 14.4 | 5.2 |
| Guidelines from a Controlling Company | Small/medium c. | 10.5 | 21.1 | 10.5 | 57.9 |
| | Large companies | 24.2 | 18.9 | 15.8 | 41.1 |
| *Adaptability and Flexibility of Software | Small/medium c. | 68.4 | 26.3 | 5.3 | 0.0 |
| | Large companies | 49.5 | 44.3 | 5.2 | 1.0 |
| Improved Innovation Capabilities | Small/medium c. | 11.8 | 29.4 | 52.9 | 5.9 |
| | Large companies | 20.6 | 40.2 | 29.9 | 9.3 |
| *Short Implementation Time | Small/medium c. | 36.8 | 57.9 | 5.3 | 0.0 |
| | Large companies | 29.9 | 51.5 | 13.4 | 5.2 |
| Good Support | Small/medium c. | 42.1 | 57.9 | 0.0 | 0.0 |
| | Large companies | 58.8 | 37.1 | 4.1 | 0.0 |

Note – all given values are percentages

Source: Edward Bernroider and Stefan Koch, 2001, "ERP selection process in midsize and large organizations ", p.4

From the survey results shown in table 1.1, it can be noted that several aspects related with flexibility (e.g. increased organizational flexibility, process improvement, innovation increasing) are evaluated as less important to small organizations because they tend to be flexible even before the implementation of the ERP system. In addition, the adaptability and flexibility of the system are much more valued by smaller organizations, as well as shorter implementation time and lower costs, because for small organizations, providing resources is an ongoing problem. Furthermore, the international adaptation of the system (including language and other areas) and consumer needs are less important, which is

surprising in terms of the latest trends in supply chains, integration with other organizations, and global e-commerce.

The method of gathering information for the decision making process also differs between SMEs and large organizations. The decision making process in small enterprises is with less involvement by all employees and the choice usually refers to less complex and cheaper systems. The criteria for selection of ERP system also depends of the priorities, for example, increased organizational flexibility, extra organizational relationships with customers and suppliers are less important aspects compared to the cost and adjustability of the system. The selection process in small organizations is much less time and cost consuming.

4. EMPIRICAL RESEARCH FOR THE USE OF ERP SYSTEMS IN COMPANIES IN THE REPUBLIC OF MACEDONIA

The research work of the paper is conducted in order to provide quantitative and qualitative indicators of the factors for successful ERP implementation, and results from the use of ERP systems. The results that are obtained from this research shows the period in which companies decide to implement the ERP system. Furthermore, the research presents the benefits of using an ERP system and the most important factors for successful implementation. Also, because ERP systems are very complex, or involve multiple modules and additional options, part of the research is whether companies utilize all the possibilities offered by the system.

The survey was conducted during October-November 2015. For the survey, companies which already use ERP systems were chosen, from all business sectors and industries, as well as different cities in Macedonia. The questionnaire was sent to 50 companies, from which 25 responded and gave feedback in complete questionnaire. Demographically, the majority of respondents are situated in Skopje.

4.1 Methodology of the research

Several different methods, techniques and tools are used to collect data in accordance with the defined subject, aims and tasks of the research, as well as verification of the results. It should be noted that the basic method used is the survey, which is one of the most common methods used in conducting research. The purpose of the survey is to provide data needed for further analysis, which in

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turn serves to demonstrate the impact of the implementation of ERP systems, and facilitating its implementation in SMEs. The survey was conducted using a questionnaire whose structure is further described below. Companies are surveyed in several ways: by e-mail, phone or directly contacting responsible people or the respondent of the company. In the process of conducting interviews, the participants were given clear guidance on each question separately, to avoid misunderstandings when the answers were entered in the table with data. This table represented the basis of all further analysis of the resulting graphs of each question, and where necessary to compare two or more questions.

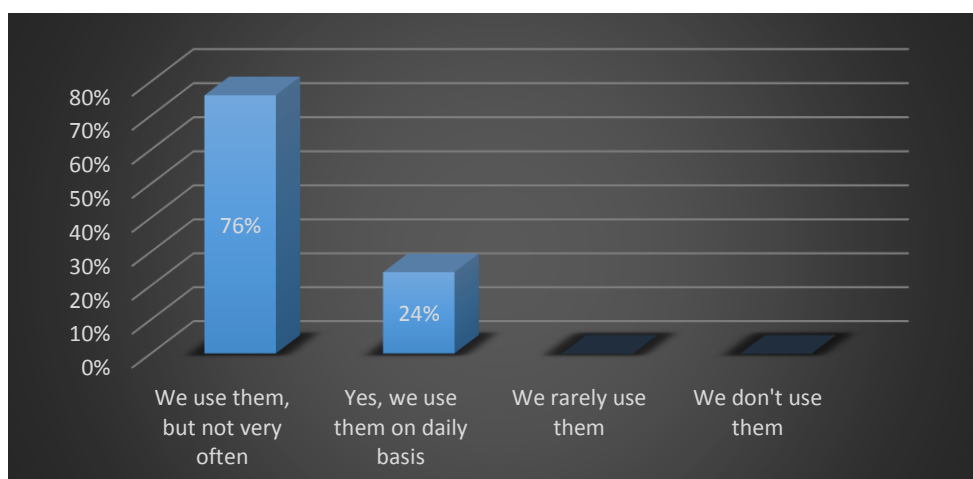
4.2 Structure of the questionnaire

The questionnaire consisted of 20 questions, including both closed questions and open questions. The respondents were employees who are using the ERP system, employees who have direct contact with material, financial modules, human resources, employers who calculate salaries, reviews stock, extracting reports and employees who are actively involved in the selection, implementation, operation and control of the ERP system. Questions use multiple-choice answers or priority scales, allowing prioritization of proposed modalities, where 1 the lowest priority to 10 as the utmost importance according the opinion of the respondent. The full questionnaire is annexed to this paper.

4.3 Data Analysis

Analysis of data is included descriptively in the text below, while the most important findings are shown in the several graphs. This study included employers in companies that implemented ERP system and employers who use ERP system every day in their work station.

Graph 1 Usage of ERP functions

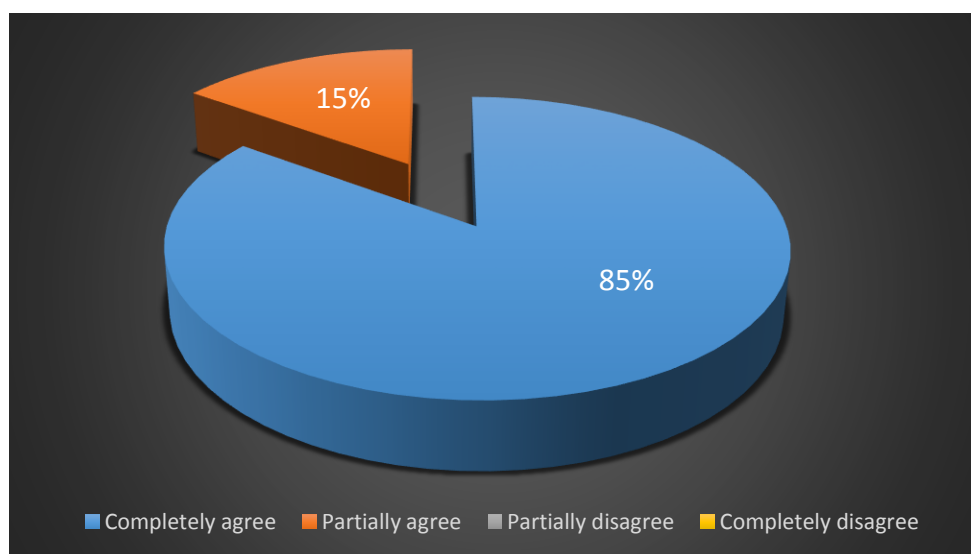


USAGE OF ENTERPRISE RESOURCE PLANNING SYSTEMS IN SMALL AND MEDIUM ENTERPRISES IN THE REPUBLIC OF MACEDONIA

Graph 1 shows whether employers use all functions offered by the system. 76% of respondents said they use them, but not very often, while 24% of respondents use them on a daily basis. ERP systems in nature are complex systems that offer more options in operation, and this question was posed just for that purpose - to see how (and in what timeframe) companies utilize all the functions that the system offers.

Furthermore, 70% of respondents said they completely agree with the claim that the application of an ERP system saves resources, while 30% said they partly disagree or have managed to save resources to some extent. Graph 2 shows that 85% of respondents completely agree with the claim that the applications of ERP system facilitates and improves day to day operations, 15% partly agree, while 75% of respondents completely agree that ERP systems accelerates day to day operations.

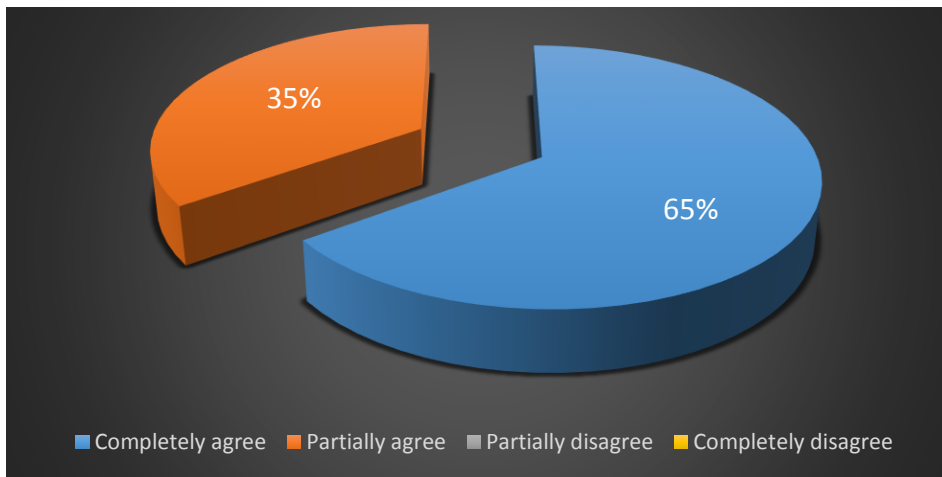
Graph 2. Improvements in day to day operations



On the claim that ERP systems has led to the need for new employees, 65% of respondents think that there isn't a need for new employees to facilitate ERP, while 35% said that their organizations have hired new employees regarding the activities around the ERP system. Employees agree that ERP systems have created opportunities for them to carry out most of the activities alone and without help from colleagues (85%), while the remaining 15% said that ERP systems helped in the process of operation to some extent.

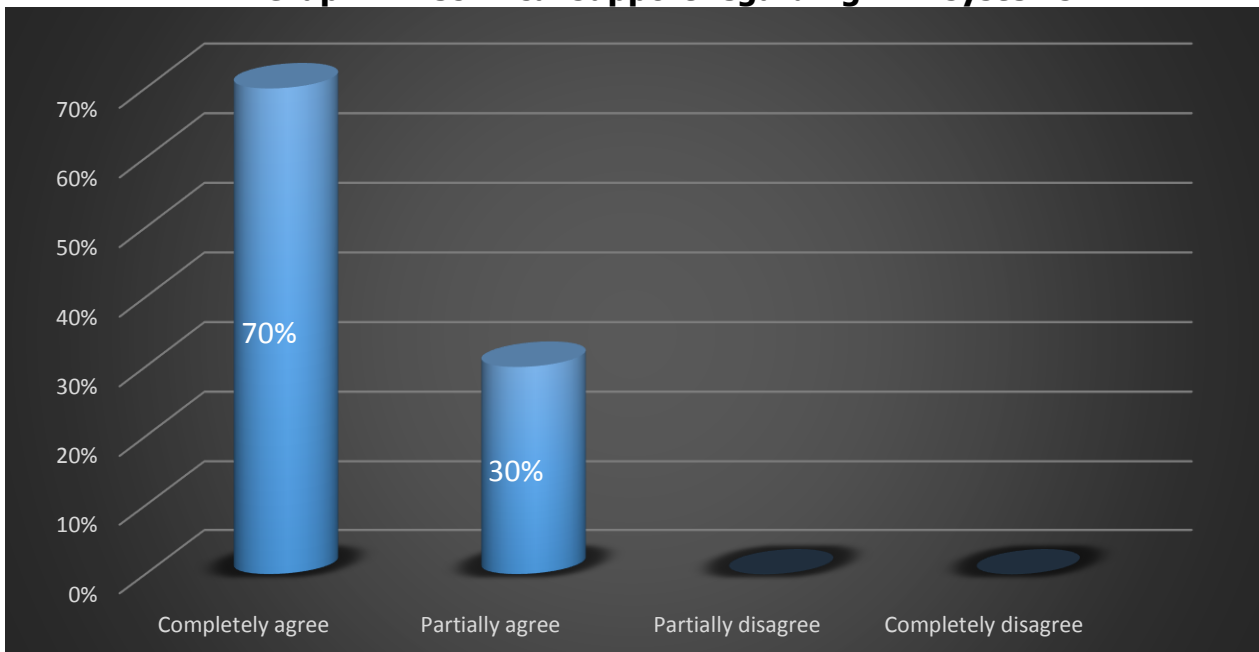
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Graph 3. ERP updates over the years



75% of respondents completely agree with the claim that ERP system obtains realistic reports and statistics, while 25% partly agree. Graph 3 refers to whether the ERP system receives updates over the years, where 65% of respondents said that the ERP system receives updates on certain intervals, while 35% of respondents said that, once installed, the ERP system hasn't received any updates at all. On the sub-question of this matter, regarding to what extent the upgrade of ERP system influenced the work process, 55% of respondents said that the new features installed were important to work processes and 45% said that, although not greatly, the new feature have contributed in the improvement of the work process.

Graph 4. Technical support regarding ERP systems

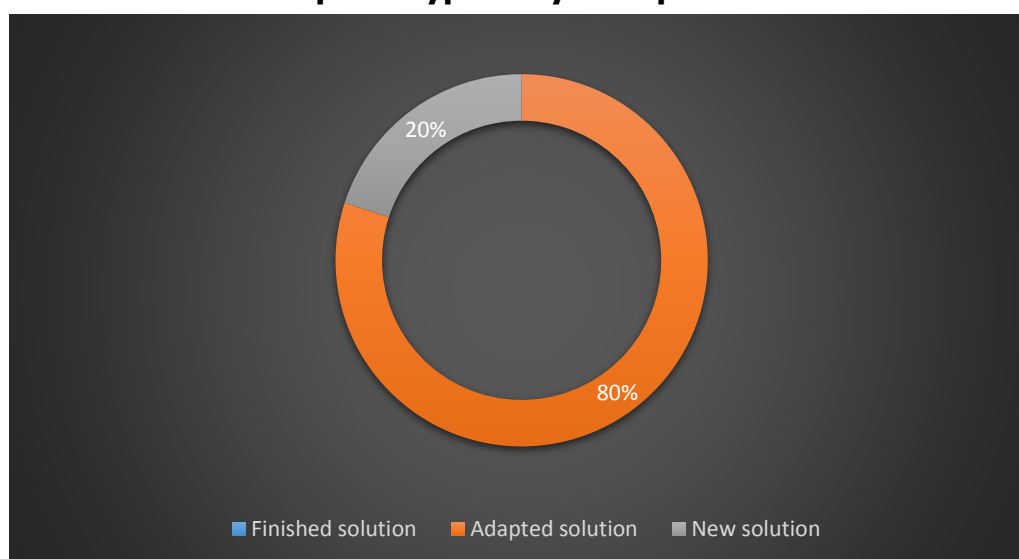


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Graph 4 demonstrates how quickly the support team reacted when problems regarding the ERP systems have appeared. 70% of respondents stated that the problem was resolved the same day, however depending on the complexity of the problem, while 30% stated their problems were resolved after few days. Regarding the skills necessary to use ERP systems, 65% of respondents agree that their skills were sufficient to overcome the new tasks and processes, while in 35% of respondents developed a need to possess new skills, as well as additional training and knowledge. 90% of respondents stated that training is an important factor for successful implementation, while 10% partially agree with this statement. 75% of respondents stated that they have easily adapted to the requirements of the new process to work, while 25% stated that they found small difficulties.

On the question whether ERP system purchased was off-the-shelf (finished), adapted to suit the company needs or a completely new system, 80% of respondents said it was a ready system adapted to their needs, while 20% have designed a completely new system to satisfy their requirements. On the last question where respondents would collate important factors for successful ERP implementation, the most important factor is building an ERP strategy even before implementation, with effective communication during the entire period between the involved parties in business process reengineering, experienced employees, support team, organizational culture, employee training, testing system, troubleshooting and monitoring and development of performance.

Graph 5. Type of system purchased



CONCLUSION

The empirical research has shown that in Republic of Macedonia, SMEs are already vastly beginning to implement ERP systems. Furthermore, it showed that companies, in short period from their inception, are recognizing the need for ERP systems and many have opted for the purchase of the system. Whether it is a small or a medium enterprise, ERP systems tend to facilitate the work process, eliminate errors and make archiving more efficient. Also, employees utilize the ERP system and functions on a daily basis. The survey concluded that with ERP systems, SMEs save resources, carry out the processes more efficiently and effectively, can get the necessary information from the system in limited time and etc. Furthermore, the research showed that with implementation of ERP systems, the work process is facilitated and accelerated as a result of high automatization in the work flow.

As a result of the research, it was also concluded that, in most cases, ERP systems do not create the need for new employees, because if the company already had a person in charge of the accounting and financial operations, payroll, human resources, personal maps and so on, then that same person could be trained for handling the activities in the ERP program.

One drawback of the research is the small sample size of 25 companies, which only included SMEs. Further research can be done for the use and potential benefits and drawbacks of using ERP systems in large companies, as well as utilizing ERP systems from the cloud, which is becoming a trend in more developed countries.

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ANNEX

Questionnaire

- 1. When was your company founded?**
 - A. Before 1995
 - B. 1995 – 2000
 - C. 2000 – 2010
 - D. After 2010
- 2. How many employees does your company have?**
 - A. Up to 10 employees
 - B. From 10 to 50 employees
 - C. Over 100 employees
- 3. The implementation of ERP system is of great value to the company**
 - A. Completely agree
 - B. Partially agree
 - C. Partially disagree
 - D. Completely disagree
- 4. In which period of time the company has obtained the ERP system?**
 - A. Before 1995
 - B. 1995 – 2000
 - C. 2000 – 2010
 - D. After 2010
- 5. Do you use all of the possibilities that the system offers?**
 - A. Yes, we use them on a daily basis
 - B. We use them, but not very often
 - C. We rarely use them
 - D. We don't use them at all
- 6. With the implementation of ERP system, the company saves resources**
 - A. Completely agree
 - B. Partially agree
 - C. Partially disagree
 - D. Completely disagree
- 7. The implementation of an ERP system has facilitated the work process**
 - A. Completely agree
 - B. Partially agree
 - C. Partially disagree
 - D. Completely disagree
- 8. With using the ERP system, the work process has accelerated**
 - A. Completely agree
 - B. Partially agree
 - C. Partially disagree
 - D. Completely disagree
- 9. The ERP system has created the need for new employees**
 - A. I agree
 - B. I disagree
- 10. Has the ERP system enabled you to carry out the activities by yourself and without much help from your colleagues?**
 - A. Yes, the ERP system has become my work partner
 - B. It has helped me in the work process to some extent
 - C. The ERP system has increased the need to ask help from my colleagues
- 11. The ERP system enables you to get real reports and statistics at any time**
 - A. Completely agree
 - B. Partially agree
 - C. Partially disagree
 - D. Completely disagree

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- 12. Has the ERP system been upgraded throughout the years?**
- A. Yes, it has been upgraded often
 - B. Yes, but it has been upgraded rarely
 - C. No, it hasn't been updated at all
- 13. If it has, how much has the upgrade of the ERP system affected the work process in the company?**
- A. Very much
 - B. Mildly
 - C. Very little
- 14. If you have encountered a problem or a mistake in the system, how quickly has the support team reacted?**
- A. I shall immediately report the problem and it will be solved the same day
 - B. From a few days up to a week
 - C. Up to one month
- 15. Has the implementation of the ERP system created the need to acquire new skills and knowledge?**
- A. Yes, it has led to a need for new skills and knowledge
 - B. No, my skills and knowledge have been sufficient
- 16. The training for the ERP system has contributed for a successful implementation**
- A. Completely agree
 - B. Partially agree
 - C. Partially disagree
 - D. Completely disagree
- 17. Have you managed to adjust to the demands of the new work process?**
- A. Yes, I easily managed to adjust
 - B. I encountered small difficulties
 - C. The process of adjustment was very hard
 - D. I have not managed to adjust
- 18. Did you purchase a finished system, or was it a completely new system?**
- A. Finished system adjusted to our needs
 - B. A new system, made to fit our needs and demands
- 19. Does your system allow integration with other systems?**
- A. Yes, it does
 - B. No, it does not
 - C. I have insufficient information regarding this area
- 20. What were the key factors for successful implementation? Arrange them in order of importance, from 1 to 10**
- A. Experienced employees ___
 - B. Team support ___
 - C. ERP strategy ___
 - D. Business-process re-engineering ___
 - E. Organizational culture ___
 - F. Training ___
 - G. Testing of the system ___
 - H. Problem solving ___
 - I. Monitoring and performance development ___
 - J. Effective communication ___

**SETTLEMENT OF THE DEBT CRISIS IN A MEMBER STATE OF THE MONETARY UNION
AND IN A COUNTRY HAVING ITS OWN CURRENCY**

UDC: 339.72.053.1:339.738(4-672EU)

SETTLEMENT OF THE DEBT CRISIS IN A MEMBER STATE OF THE
MONETARY UNION AND IN A COUNTRY HAVING ITS OWN CURRENCY

Krste SAJNOSKI, PhD¹

Tatjana BOSKOV, PhD²

Antonija JOSIFOVSKA, PhD³

ABSTRACT

This paper is focused on settling the debt crisis in a member state of the Monetary Union (for instance, Greece) and it presents the arguments that the settlement for overcoming the debt crisis must rise out of its causes. They are present both in the weaknesses of the Monetary Union's functioning and the irresponsible behaviour of the government in the country. Therefore, the resolution must endanger neither the euro nor the stability of the country. It is unacceptable the resolution which can help the crisis to be overcome smoothly (by writing off the debts) if it violates the relations in the euro zone and if it endangers the future of the single currency. The burden of overcoming the crisis has to be borne both by the debtor and the creditors according to their "merits". In this context, the author has elaborated the achievements of the pro and contra austerity measures.

KEYWORDS: debt crisis, common currency, Monetary union, euro, eurozone, austerity measures, internal devaluation

JEL CLASSIFICATION: E42

¹ CEO and founder of „FAKTOR.MK“ - website for business and economy - Skopje, R. Macedonia, e-mail: krste@fbe.edu.mk

² assoc. prof. Faculty of Economics in Stip, University Goce Delcev – Stip

³ Full-time professor, Integrated Business Faculty, e-mail: antonija@fbe.edu.mk

INTRODUCTION

What is characteristic about the numerous discussions and comments on the debt crisis in the eurozone, especially in Greece, is the fact that in most of the cases the economic and political aspects of the problems have been analyzed separately. This leads to drawing unilateral conclusions about the causes of the crisis and the way of overcoming it. When it comes to the causes of the debt crisis and the weaknesses of the euro, it is given a dominant significance to the incomplete and inconsistent model of introducing a common currency (a unique monetary system, with no common fiscal policy)⁴, which leads simultaneously towards “building” debts in separate countries and surplus in others, and to sharpening their interrelationships as a result of the internal contradictions. There are practically no opposing opinions on this. But, albeit this fact has been acknowledged, there are observations which attach a greater importance for the outbreak of the debt crisis to the irresponsible behavior of the political élites in separate countries, and to their non-compliance of the contractual criteria for the functioning of the Monetary Union. However, when it comes to the way of overcoming the debt problems in separate countries in the eurozone (particularly in Greece) and saving the euro, not only as a common, but as an international currency, in the past few years there have been crystallized two economical views (that means solutions irrespective of the political dimension of the problem) – pro and contra austerity measures. It was also presented a new option not long ago.⁵

In a more detailed elaboration, it will be pointed out the achievement of the pro and contra austerity measures so that the unilaterality of solutions can be seen.

⁴ The problem was perceived even before the introduction of the common currency. Milton Friedman wrote: „The drive for the Euro has been motivated by politics not economics. The aim has been to link Germany and France so closely as to make a future European war impossible, and to set the stage for a federal United States of Europe. I believe that adoption of the Euro would have the opposite effect. It would exacerbate political tensions by converting divergent shocks that could have been readily accommodated by exchange rate changes into divisive political issues. Political unity can pave the way for monetary unity. Monetary unity imposed under unfavorable conditions will prove a barrier to the achievement of political unity. “(Milton Friedman, The Euro: Monetary Unity To Political Disunity? Project Syndicate, Aug 28, 1997)

⁵ „Greece was offered two stark choices: Leave the eurozone without financing, or remain and receive support at the price of further austerity. But Greece should have been offered a third option: Leave the euro, but with generous financing “(Arvind Subramanian, How the IMF Failed Greece, Project Syndicate, AUG 13, 2015). This wasn’t requested by the debtor, and it was not commented by the creditor. They probably consider it as unattainable.

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Furthermore, it will be pointed out the role of the common currency of the member states in the eurozone in order to be seen that the membership in the Monetary Union is not a daily, but it is a long-term interest to whose realization it has to make a contribution each member state. Finally, it will be highlighted that a permanent solution of the debt crisis has to be searched in the elimination of the complex of causes that has led to crises in separate countries of the eurozone and the euro.

THE ACHIEVEMENT OF PRO AUSTERITY MEASURES

The essence of the pro austerity measures as a solution to the debt crisis in Greece consists in the fact that the debtor has to pay off the finances borrowed from the creditor without any concessions. The debtor has to repay as much as he borrowed with the agreed interest as it is, actually, the case for the majority of countries. Therefore, the debt has to be paid off in a way that corresponds to the obligations which the country has as a member state of the Monetary Union, due to the fact that the country gets into debts by acknowledging itself which means for paying off the debt are available to it.

By having accepted the euro as its own currency, Greece, actually, determined the way of overcoming the external imbalance of the country. Thus, it agreed to abstain from the opportunity to solve the issue of the price competitiveness of the national economy by devaluating the national currency, because it accepted the euro as its own currency. This means that it has accepted to maintain the price competitiveness either by increasing the production, and/or by lowering the prices of the products and services, by lowering the amount of salaries, pensions and the income received on other bases, by reducing the ponderous and ineffective administration, i.e. by increasing the unemployment... These are all measures which reduce the expenses in the work of the economic subjects, thus increasing their competitive ability at the foreign markets, and in this way providing a bigger inflow of finances for paying off the debts. These are measures (of "internal depreciation") which essentially realize the effects of devaluation that can be carried out in a country having its own currency due to the fact that the process of devaluation stimulates the export, and it discourages the import. The difference can be seen in the fact that the measures of "internal devaluation" put some deflationary pressure on the member state's economy,

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whereas the nominal devaluation puts some inflationary pressure on the value of the national currency. In the first case, the burden of the debt's repayment falls basically upon the users of public debt (budgetary users) and upon the taxpayers (if the taxes rise), whereas in the second case, the burden falls upon the whole population because of the more expensive import and the increase in repayments in the national currency due to the credit indebtedness towards the foreign countries. The final objective of both approaches is to bring into balance the economic relations of the state with the foreign countries, which presents a condition for achieving a maintainable development for a longer period of time and for paying off the debts on time.

Here, it should be taken into account that in a complete Monetary Union (with a unique currency and a common fiscal policy), the member states do not have a concrete obligation to bring into balance their economic relations with the foreign countries in order to achieve an external balance in the union and stability of the euro exchange rate. This is the case with the US which does not take care about that. It is the duty of the Treasury and the Federal reserves.

Why is the implementation of the measures of "internal devaluation" formally and legally suitable for the countries in the eurozone when they get into a debt crisis?

The defense of the austerity measures in the countries of the eurozone which have fallen into a debt crisis arises from the established rules of the functioning of the Monetary Union. The Maastricht Treaty obligates the member states not to surpass the limit of the budget deficit more than 3% annually, and the public debt – not more than 60% of the GDP. This means that all the countries which have been brought into a situation of not being able to fulfill their liabilities to the creditors because of having surpassed the already mentioned limits should bear all the consequences of their own behavior. They will have to gather up their strength in order to provide finances for paying off the mature debts on time, regardless of the price that should be paid for that, because they had to contemplate about it when

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they borrowed and spent foreign finances. It is well-known that a good share of the borrowed finances was spent irrationally i.e. unproductively.⁶

How did it happen to the Greek government to have surpassed the limits in the budgetary expenditure and in the increase of the public debt nearly twice in spite of their determination?

In the response to this question it should be looked for the most suitable way of overcoming the debt crisis in Greece and the crisis of the Monetary Union and the euro.

It is evident from the previously mentioned that the arsenal measures of internal devaluation are inevitable in the Monetary Union. In the concrete case, it should not be implemented only such kind of measures because it is unfair the debt's burden to be borne only by the debtor. Nevertheless, it is normal the bigger part of the debt to be borne by the debtor. And how big it will be that part, depends on the amounts that the member states of the eurozone are ready to write off and on the financial support they want to provide in order to reconstruct the economy. The bigger they are, the better for the country because they improve the starting position of the Greek economy in overcoming the crisis (they spare the indebted country from even tougher austerity measures). However, if both the amounts of debts that have been written off and the amounts of resources for financial support are lower, then the debtor country takes the responsibility of providing the initially required level of competitiveness by implementing more intensive measures of internal devaluation (by reducing salaries, pensions, prices etc), and appropriate structural reforms.

It is a fact that the austerity measures are suitable for acquiring a position of a member state in the European Monetary Union. However, when bringing up a solution for the debt crisis, it should not be underestimated the fact that the member state has accumulated so big debts that it is not able to pay them off due to the weaknesses and defaults within the functioning of the union. For that reason, a part

⁶ "Rather than describing current government spending as "austere," it would be more correct to view it as an end to years of fiscal profligacy, culminating in 2013, when the government's budget deficit reached 12.3% of GDP and public debt climbed to 175% of GDP." (Edmund S. Phelps, What Greece Needs to Prosper, Project Syndicate, AUG 6, 2015).

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of the debt's burden should also be borne by the other members. How big it will be, depends on the mutual contract, and on the objective evaluation of their guilt about the accumulation of debts.

By justifying the implementation of austerity measures for overcoming the debt crisis in Greece, it has been emphasized the necessity for maintaining the euro's value and for disciplining the member states to keep to the rules for functioning of the Monetary Union. Within the persistence of those measures, it can be seen an opportunity for increasing the credibility in the euro, and there is a warning that the disobedience of rules is not worth at all. The debtors have to pay off the debts due to the fact that their socialization is unacceptable among the subjects in separate countries, and it cannot be sustained within the current model of organization and functioning among separate countries in the eurozone. It is not a coincidence that some of them contradict to the propositions for writing off debts by giving reasonable and comprehensive arguments. It is important to find out a way how to assist the countries which receive higher income nowadays (salaries, pensions ...) and which have a more favorable status of some social structures (because they were previously financed by credits they are not able to pay off now) in relation to some members of the eurozone which have proportioned their work and life with their own achievements. Can the union exist if it is tolerated and supported the practice of living by the sweat of other men's brows?

THE ACHIEVEMENT OF CONTRA AUSTERITY MEASURES

Whereas the supporters of the austerity measures for overcoming the debt crisis in Greece (and the other countries in the eurozone) are from the European countries which are more developed, the opponents are numerous and they are present in most of the countries. The Americans are the ones who are predominant, especially the Nobelists Paul Krugman, Joseph Stiglitz⁷ and other prominent economists such as Jeffrey Sachs, Kenneth Rogoff, Ben Bernanke... The IMF has

⁷ They even suggested that at the referendum, the Greek citizens should commit themselves against the proposition for saving Greece from bankruptcy, being based on austerity measures and financial support of structural reforms. (Joseph E. Stiglitz, *Europe's Attack on Greek Democracy*, Project Syndicate, Jun 29, 2015; Paul Krugman, *Greece Over The Brink*, The New York Times, June 29, 2015)

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changed its attitude towards the austerity measures in terms of Greece, despite the fact that it hasn't evaded those measures in disciplining the authorities of the countries falling into "a fundamental imbalance" for decades. There is no explanation if it is an exception or whether it will be implemented in other countries in future. Or, maybe, it is easier to criticize the austerity measures when it comes to a country which is a member of the eurozone and there is someone who can bear part of its debt's burden (by writing off credits and by reprogramming debts with lower interests), thus enabling it to overcome the recession and to service its liabilities to the foreign countries (and of course, to the IMF as well). The fine idea of saving the euro is used as an argument although it is problematic to achieve that if there has been set a precedent of "painless" or less painful resolution for the debt crisis in the countries of the eurozone. Isn't it, on one hand, "a condition" for spreading "the disease" called irresponsible indebtedness of the other countries in the eurozone, and on the other hand, "a condition" for granting credits in a relaxed way. However, this approach is not a way of strengthening the euro. It's the opposite of that.

Nominally, the opponents of the austerity measures for overcoming the debt crisis in Greece have a soundly scientific and economic guarantee, but not in the concrete case of the debt crisis in Greece. First of all, the debt is enormous and more projections indicate that it cannot be paid off by implementing austerity measures (which have been brought down to measures of internal devaluation) because they endanger the dynamics of the growth and sharpen the social tensions, and at the same time the opportunities for servicing repayments. Afterwards, it has been stated that the country as a member of the eurozone, having the euro as its national currency, does not have any opportunities for using its own monetary policy for overcoming the debt crisis, including here the policy of the exchange rate and devaluation as a measure for improving the price competitiveness of the domestic production at the foreign markets. By determining "the object of analysis" in a way like this one, it has been stated the Keynesian argument: an economy in recession cannot recover itself if the macroeconomic policy undertakes austerity measures because by doing so it reduces the consumption, thus affecting the dynamics of economic growth and it also decreases the opportunities for servicing debts. The

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way out is possible only if the consumption increases. For Krugman: „It’s astonishing even now how blithely top European officials dismissed warnings that slashing government spending and raising taxes would cause deep recessions, how they insisted that all would be well because fiscal discipline would [inspire confidence](#). (It didn’t.) The truth is that trying to deal with large debts through austerity alone — in particular, while simultaneously pursuing a hard-money policy — has never worked. It didn’t work for [Britain after World War I](#), despite immense sacrifices; why would anyone expect it to work for Greece?“⁸

However, the credibility of this argument does not correspond to the case of overcoming the debt crisis in Greece. The Keynesian attitude refers to the way out of Great Depression of the developed national economies (1929-1933). He solved the problem of insufficient demand which had arisen either because of the insufficient propensity to consumption or because of the unfavourable allocation of income within the national economies (increase in inequality).

As a result of this, it has appeared the necessity for the economies to save money in a period of flowering in order to have finances for stimulating the consumption in a period of crisis. The Greek crisis is not a crisis of overproduction. In fact, it is a crisis which has emerged as a result of the excessively unproductive and extravagant spending of finances it does not possess, but which were borrowed under conditions when the member states of the Monetary Union didn’t have a mutual responsibility or at the level of the Union (from a fiscal union) in order to service the national debts as debts of the Union. Therefore, in this context, by increasing the spending the exit from recession makes itself look like a treatment of an alcoholic with more alcohol.

It is understandable that the intention of the authors of contra austerity measures is to provide a more favourable and sustainable solution so that Greece can get out of debt crisis. It is a fact that the Greek economy is not able to pay off the enormous debts it has been accumulating for a longer period of time to the creditors. This means that it has to be made a decision about reducing the Greek debt by writing it off and/or by reprogramming permanently the liabilities with

⁸ Paul Krugman, Europe’s Impossible Dream, The New York Times, July 20, 2015

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favorable interests, and about bringing it down to such a level where it can be serviced along with the projected economic growth of the country. If this won't be fulfilled, the Greek cannot overcome the debt crisis. The settlement of the crisis will be only postponed for a while if the opportunities for repayment are not properly measured.

The economic logic of this approach is undeniable, but it cannot resist the economic and political considerations emerging from the possible precedent of such a decision in the relations of the eurozone. This will raise questions which are not obviously in favour of the justification and coverage of the irresponsible indebtedness of the Greek authorities in the past period.⁹ Furthermore, by taking up austerity measures some member states of the eurozone (Portugal, Ireland, Latvia, Estonia) and others (Iceland), have managed to recover their economies for a period of few years. It turned out that despite the austerity measures, it is possible an economic growth, but with significant casualties.

THE ROLE OF THE COMMON CURRENCY FOR A MEMBER STATE IN THE MONETARY UNION

As the supporters of contra austerity measures have been trying to find an optimal solution at all costs (including the debt write-off and the withdrawal from the euro), they have overlooked the role of the common currency for a member state in the Monetary Union, not taking into consideration the fact that the countries join the union in order to accomplish some long-term economic and political objectives.

For the national economies in the eurozone, the euro represents a currency with a single and stable rate giving such effects as those of the country's policy of a single, stable and real rate of exchange in the systems of fixed exchange rates. If it is real, that rate of exchange leads towards bringing into balance the economic relations of the state with the foreign countries, it instigates the economic growth under conditions of stability, and it intensifies the involvement in the international

⁹ „Austerity is thus the result of policy makers' past inability to take timely decisions, in other words it's the result of their short sightedness – and stupidity “ (Lorenzo Bani Smaghi, Austerity and Stupidity, Vox CEPR's Policy Portal, 06 November 2013)

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labor division. The already mentioned effects are also carried out in the eurozone. Despite the fact that separate countries can be deficient in terms of the currency, the eurozone will be in a state of balance if it is led a policy for maintaining the real value of the common currency in the Monetary Union, and that can be achieved with the floating exchange rate of the euro. It can be stated from this point of view that there is no difference in the way of leading a macroeconomic policy between a country which is a member of the Monetary Union and which accepted the common currency as its own, and a country which has its own currency with a fixed rate of exchange according to one of the leading currencies. The difference is the fact that the member state of the Monetary Union has no opportunity for implementing depreciation and it is forced to use measures of internal devaluation, whereas the country with its own currency has such an opportunity. However, the difference vanishes if it doesn't use that opportunity. The relations between these two countries and some foreign ones can be brought into balance by taking measures of internal devaluation, in the first country by force (because there are no other opportunities apart from leaving the common currency), and in the second one consciously and voluntarily (because the government believes that the effects of the eventual devaluation of the national currency will be more unfavorable than the ones of carrying out the process of balancing through measures of internal devaluation).

The aim of the policy on maintaining a single, stable and real rate of exchange is to achieve a more rational involvement of the national economies with their own currency or of the joint ones in the Monetary Union with a common currency in the international labor division. In both cases, the macroeconomic policies of the countries have to pay attention to keep an account of maintaining the exchange rate single, stable and real (the reality in the international regime of floating exchange rates is provided by offering and demanding the currency at the foreign exchange market). This is not a problem for the eurozone. The euro presents a currency with a single rate of exchange for all member states and all sectors of the member states' economies, and on the basis of that there has been carried out a rational labor division among the national economies in the eurozone, and at the same time in the global economy.

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By joining the eurozone the member states expose themselves to conditions of improving the competitive ability of their economies either by constantly increasing the labor productivity or by lowering the expenses in the process of working. They don't have the chance to use the manipulation of the exchange rate in order to improve the competitive ability of the national economy. Therefore, the stagnation of labor productivity and/or the country's extravagant spending worsens the position of the national economy in terms of the union's average, whereas the will and insistence of the government to improve the population's living standard (in order to fulfil the election promises) leads towards indebtedness in other countries. However, if the credits are not used rationally, the country gets into debt crisis because it starts servicing the payment of mature liabilities by providing new credits.¹⁰

An advantage of the member states of the Monetary Union (if it is followed by a fiscal union) is the fact that they don't have any dilemmas how to improve their competitive ability. Only real economic moves are at their disposal: they will either increase the productivity and/or reduce the expenses. In contrast with them, the countries with their own currency are often exposed to pressure of improving the economy's competitive position by increasing its price competitiveness, and by devaluing the national currency. However, this is not an advantage. In fact, it is a result of making insufficient efforts for maintaining the reality of the exchange rate by increasing the process of innovation, the labor productivity and the profitability of working.

In a different context, this kind of elaboration of the currency's role of a member state of the Monetary Union and of a country with its own currency poses a question about the way of resolving the debt crisis in Greece. Greece is a member

¹⁰ In this context, the results from the evaluations of economic benefits of the economic and political integration are indicative. They are negative only for the Greek „Using the synthetic counterfactuals method, we estimate how GDP per capita and labour productivity would have behaved for the countries that joined the European Union (EU) in the 1973, 1980s, 1995 and 2004 enlargements, if those countries had not joined the EU. We find large positive effects from EU membership but these differ across countries and over time (they are only negative for Greece). We calculate that without deep economic and political integration, per capita incomes would have been, on average, approximately 12 percent lower.“ ([Nauro F Campos](#), [Fabrizio Coricelli](#), [Luigi Moretti](#), Economic Growth and Political Integration: Estimating the Benefits from Membership in the European Union Using the Synthetic Counterfactuals Method, www.cepr.org/active/publications/discussion_papers/dp.php?dpno=9968)

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of the union with rights and obligations towards the other member states of the eurozone, and with a full responsibility for its own development under the conditions of the euro's functionality. After it had joined the Monetary Union, it couldn't choose the way of solving its debt problem. The choice of interventions for increasing the competitive ability of the national economy (either by increasing the labor productivity and/or by reducing all kinds of expenses – measures of internal devaluation) is restricted. It is excluded the opportunity which the countries with their own currency have it in hand i.e. improving the price competitiveness of the export-oriented economy by carrying out a devaluation. However, they bear all the consequences arising from its unsuccessful implementation, especially from falling into the well-known vicious circle of depreciation and inflation. After all, the aim of joining the Monetary Union (and maintaining a fixed rate of the national currency in relation to a currency which has an international role) is to turn the interest of the national economies of making a bigger profit towards taking economic measures, and not towards measures for distribution of the national income (as it is the devaluation).

THE SOLUTION FOR GETTING OUT OF DEBT CRISIS HAS TO ARISE FROM ITS CAUSES

The settlement of the debt crisis in the eurozone, especially in Greece, has forced to be carried out a fundamental search of the functioning of the European Monetary Union and the euro as a common currency. There can be found the reasons for the outbreak of the debt crisis. The cause cannot be evaded while searching for a permanent solution for overcoming the crisis because if it is not eliminated, it will create conditions for breaking out again, but at another place and with different intensity.

It is a matter of the concept of formation of the Monetary Union, given the fact that it is not complete. In spite of the single monetary policy, it has need of a mutual and coordinated fiscal policy in order to function effectively (not to mention the fact that it also has need of a political union in order to be completely effective). This lack has given the member states a great freedom of planning and spending the budgetary funds under the conditions of free movement of capital.

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The contractual solution which had to compensate the lack of fiscal policy coordinated at a higher level has proven itself as not effective enough to bridle the appetites of the member states' governments for spending. Most of them have surpassed the contractual limitations on the growth of the budget deficit of 3% and the public debt of 60% of the GDP.

The breach of contractual limitations has objectively imposed the question of subjective (ir)responsibility on causing a debt crisis in the countries of the eurozone. No evidence is needed to prove that the eurozone wouldn't have fallen into a crisis of such dimensions and depth if all had held on to the determined limits (not to mention the information of "masking" the Greek debt even after the country had joined the eurozone). However, it is a matter of question whether the observance of those limitations wouldn't be a restriction of the consumption as a result of what the economic growth would be delayed in separate countries and in the eurozone as a whole. It is a matter of question whether and how adequate the solution of setting similar limitations on the restriction of indebtedness is, regardless of the effects which have been achieved with the borrowed funds.

In outlining the solution for overcoming the debt crisis in Greece, it has to be taken into consideration the irresponsible behavior of the creditors. They have been crediting not taking into account the creditworthiness of the debtors. In the race for profit, they forgot that the countries can bankrupt although there is no standardized procedure.

In this context, it is evident that the acute problem of being not able to service the liabilities to creditors has to be solved not as a problem in itself (as it is the case with Greece), but within the context of overcoming the causes of debt crisis in the eurozone for a longer period of time. The solution will be good if it manages to provide an effective settlement of the debt crisis in Greece and at the same time to generate conditions which will prohibit the practice of irresponsible borrowing and crediting, and which will possibly "socialize the losses". This problem undermines both the Monetary Union and the euro.

By admitting the objective faults made upon the introduction of the euro and the subjective weaknesses (of both the debtor and the creditors) in the functioning of the Monetary Union, there are created conditions for overcoming the

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consequences of the debt crisis in Greece and the uncertainties of the euro's future. The agreement on the objective faults is an assumption of implementing reforms which are essential for the consequent functioning of the common currency in the eurozone whereas the mutual recognition of the debtor's and creditors' faults is a basis for establishing a sustainable level of the national debt of Greece in such a way that it doesn't cause any dissatisfaction of the other member states of the eurozone.

It can be insisted upon paying off the debts entirely, but if the debtor is not objectively able to do that, the crisis won't be settled. In fact, it will be only postponed. It is also problematic the insistence upon ceasing the implementation of austerity measures and enabling the debtor to pay off the debts by stimulating the economic growth, and not by saving which leads to deceleration of the growth. At worst the pro austerity measures have been putting off the real settlement of the country's debt crisis (although it has its own price) whereas the contra austerity measures can endanger both the union and the euro if they are reduced to writing off the country's debts regardless of the reasons leading to that. Such a solution will be quite properly required by the other indebted countries which have already made an approach to saving and reforms for overcoming the debt crisis. It is a question if there will be such countries that are willing to finance that kind of approach, at least until it is not established a fiscal union or achieved a greater coordination of the fiscal policies of the eurozone member states.

Therefore, it should be kept in mind that the entry in and the exit from the Monetary Union is not a matter of a daily interest, but rather of a long-term decision. It means that every member state of the Monetary Union has to reassess its decisions of joining the eurozone and of undertaking the euro as its own currency because the eurozone and the euro are not the only solution for the members' developmental problems, but rather an opportunity (by political and economic integration) for a more rational involvement of the national economies in the labor division in the eurozone and in the global economy. In accordance with that, they will have to lead the developing policy in the country, using the benefits from uniting and taking into account the losses it suffers from as a result of the lower level of development in relation to the other countries in the integration.

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CONCLUSION

In the process of overcoming the debt crisis in Greece and in the eurozone, it was underestimated the complexity of the problem, and there were created two different solutions: pro and contra austerity measures (including here and the abandonment of the eurozone and the euro). It is as a matter of realizing the daily interests of the member states rather than making a decision for joining the Monetary Union in order to realize the long-term interests of each of the member states individually and as a part of the eurozone.

The way of giving precedence to the liability of repaying debts regardless of the country's objective possibilities and the conditions in which they have accumulated, and the insistence on ceasing the implementation of austerity measures because they deepen the crisis in the country, are unilateral approaches. However, it has been overlooked that the debt crisis is not a natural disaster. In fact, it is an occurrence with deep socio-economic and political causes. Without their elimination, there is a great possibility for not overcoming the debt crisis. In other words, it can be postponed, and it can break out again and definitely endanger the Monetary Union and the euro.

By entwining the economic and political aspects of the debt crisis in the eurozone, it is imposed a more fundamental intervention in the eurozone (establishing a political and/or at least a fiscal union despite the monetary one) and in separate countries (a consequently marketable behavior including "the bankruptcy" of incompetent and irresponsible governments) in order to avoid the future crises, and to help the euro continue along the way of enhancing its international role.

By relying only on the pro and contra austerity measures, there can be satisfied some current short-term interests of the actors in the settlement of the debt crisis in Greece, but they won't be functional in terms of the work promotion of the European Monetary Union and the further affirmation of the euro.

The reasonable solution has to satisfy the justice, and at the same time to open space for strengthening the integrative processes in Europe, and the euro in the in the intercurrency relation in the world. This means that the burden of overcoming the crisis has to be borne by both the debtor and the creditors according to their

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“merits”. It has to be avoided the enforcement of solution out of the powerful position of the creditors having an aim of covering up their responsibility for bad crediting, or out of an extortionate position of leaving the common currency in order to sustain the rights acquired by credits that the country is not able to pay off.

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