

Analysis of Performance of Venture Capital Funds in Transition Countries: An Empirical Study in Bosnia and Herzegovina

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Abstract

Many transition post-socialist countries still face the burden of the centrally planned economies. The new entrepreneurial society that is yet to be developed in these countries should be an association of people with pronounced individuality and different needs, with different rights and obligations. Capital markets in Southeast Europe, in recent years, become increasingly important as a leverage of the development of entrepreneurial societies. One of the most important new forms of financing is venture capital funds. These funds are especially important for the financing of start-up enterprises, which are trying to succeed utilizing modern high technologies. Since the newly formed enterprises have difficulties in getting favorable sources of financing, venture capital funds can have an important role in developing economies. In our study we focus on the current state of venture capital funds in Bosnia and Herzegovina as the representative of post-socialist transition countries. The main goal of this paper is to demonstrate the importance of venture capital for growth and development of small and medium-sized enterprises.

Keywords: transition, development, financing, venture capital funds, start-up, enterprise, management

JEL classification: G24

Introduction

Entrepreneurship is the foundation of social progress and well-being of each individual as a separate factor of creativity, in addition to land, labor, capital and technology it represents the art of its combination with the aim of creating new products, services and other economic and social activities (Petkovic et al., 2013). Innovation can be defined as commercial or industrial application of something new, like a new product or process or a new type of organization, a new source of supply in the market of products (Schumpeter, 1975). It is no longer enough just to combine resources in new ways, now it is necessary to create them (Drucker, 1995).

Venture capital funds are funds that are internationally recognized as "Private Equity Funds" and "Venture Capital Funds". According to the Law on Investment Funds of Republic of Srpska, Venture capital funds are defined as open-ended investment funds of venture capital with private offering (Čudić, 2012). Venture capital refers to funds invested in new or high-risk enterprises, usually in exchange for a stake (Corman, et al., 1996). Venture capital companies raise money from private investors and expect a high annual return (20-40%) on their investment and usually

invest in companies for a period of three to seven years (Awe, 2006). Thus, venture capital funds invest in innovative companies that promise a successful business. The correlation between the presence of venture capital and innovation was proven, where it was found that innovation should create demand for venture capital funds, and not the vice versa. (Geronikolaou et al., 2008).

Scientific goal and purpose of this research is finding the answer to the question: How to create the most favorable conditions for access to venture capital funds?

The subject of research presented in this paper is a theoretical and empirical analysis of the state of venture capital funds in the transition countries with special reference to the B&H. In our study, we assume that the formation of venture capital in B&H would contribute to the development of innovative small and medium-sized enterprises through the commercialization of innovation, and thus the growth and development of the economy of B&H in general.

In the first part of this paper we analysed the state of venture capital funds in transition countries based on different studies. The second part of paper is reserved for empirical research that we conducted in the B&H. We made sure that the research covered almost the entire territory of the B&H.

Venture capital funds in transition countries

Capital markets in Southeast Europe, in recent years, have become increasingly important. However, in order to create conditions for the operation of venture capital funds, it is necessary to pass the multi-layer changes from the restructuring of production and political relations to changes in the dominant system of values (Vukmirovic, 2006).

This applies especially to the countries of the Western Balkans. Croatian Private Equity and Venture Capital Association (CVCA) was founded on the territory of Croatia in 2004, and it started its activities in 2005. Since 2008 it has been an honorary member of the European Venture Capital Association (EVCA), and it has participated in the work of the Association of Central and Eastern Europe. There are several venture capital funds operating in the Western Balkans, such as the Nexus Alpha, Questus Private Equity Capital, RSG Capital, SEAF Macedonia, SEAF Croatia, Poteza Innovation & Growth Fund, Horizonte Ventures, CC Partnership LP. Some of the companies in which investments have been made are: Fratello JSC (B&H), Cement Factory Lukavac JSC (B&H), Tele2 Ltd. (Croatia), Magma Ltd. (Croatia), Imlek JSC (Serbia), Bambi JSC (Serbia), and others (<http://www.cvca.hr>; February 26, 2016). ERBD (ili EBRD) and EIB have launched an initiative to establish a regional venture capital fund whose success mostly depends on the creation of favorable legal and tax environment for entrepreneurship development. For the countries of the Western Balkans it is important to develop the venture capital market, because this method of financing the company contributes to reducing unemployment, increasing the competitiveness of the economy, attracting foreign capital, in short, to the growth and development of the economy.

Analysis of the state of venture capital funds in B&H

In order to increase the competitiveness of the economies in transition, reduce unemployment and provide economic growth, it is necessary to find a way to improve the access to a wide range of external sources of financing for small and medium enterprises. The importance of venture capital funds for the development of the enterprises is indicated by the fact that in the period from 2000 to 2008, more than a third of companies worldwide were using financial resources from venture capital funds that have not been located in the country where these companies are

(Schertler et al., 2009). Venture capital funds provide faster growth of new enterprises (Keuschingg, 2002), and have a positive impact on macroeconomic indicators (Romain et al., 2004).

Now it is more difficult to get loans from banks, especially for enterprises which are in the process of establishment and development. In the Republic of Srpska, there is no a commercial bank that support start-up enterprises, except for the Investment-Development Bank of the Republic of Srpska (<http://www.irbrs.org>; February 28, 2016). Venture capital funds are willing to invest in start-up enterprises in exchange for a stake. Venture capital funds are especially important because they are able to invest in high-risk companies, or in companies that deal with a new technologies. In order to attract foreign and domestic investors, i.e. form venture capital funds, first it is necessary to create a favorable business environment. In the example of Bosnia and Herzegovina we can understand what it means to have unfavorable business environment. In transition countries, such as Bosnia and Herzegovina and the Republic of Srpska, the capital markets are still undeveloped and it takes much more to be done to make these markets more attractive to investors. The unstable political situation and unfavorable business and tax environment for SMEs are just some of the reasons why countries in transition are still unattractive to investors.

Empirical research results

We investigated the state of the formation of venture capital funds in the B&H, as well as the willingness, i.e. reluctance of SMEs to finance their business from venture capital funds. The subject of research presented in this paper is a theoretical and empirical analysis of performance of venture capital funds in the transition countries with special reference to the B&H. Quantitative research was conducted based on a random sample of 124 companies ($n = 124$).

The plan and research methods

Quantitative research was conducted in the period from mid-November 2015 to mid- February 2016. 124 enterprises participated in this research. We made sure that the research covered almost the entire territory of the B&H. The research included companies from the following 19 cities and municipalities: Dobož (29), Derventa (24), Modriča (24), Banja Luka (11), Prnjavor (8), Bijeljina (6), Laktaši (5), Gradiška (3), Prijedor (2), Pale (2), Šamac (2), Istočna Ilidža (1), Istočno Sarajevo (1), Kozarska Dubica (1), Lončari (1), Ljubinje (1), Novi Grad (1), Mrkonjić Grad (1), Pelagićevo (1).

The research results

Most companies were founded in 2001, the oldest company was founded in the 19th century (1895), while the youngest one was founded in 2013. From this it can be observed that the dispersion of the data on this characteristic is quite large. According to the form of organization, the most common are the companies registered as a limited liability companies (96 enterprises or 77.42%) followed by self-employed entrepreneurs (16 or 12.90%) and joint-stock companies (7 or 5.64%).

As for the division of the companies by size, the micro and small enterprises are most represented. These data will be presented in Table 1.

Table 1

The size of the company and the number of employees in companies

Size of the Company	Number of Companies	% relative to the total sample
MICRO	34	27,42%
SMALL	73	58,87%
MEDIUM	15	12,10%
LARGE	2	1,61%
TOTAL:	124	100%

Source: authors

Our research included a total of 3.729 workers who were employed in all the companies from our sample. The micro enterprises employ a total of 195 workers, or 5,23%, small enterprises employ 1.422 workers or 38.13%, medium-sized enterprises employ 1.162 or 31.16%, and the two large enterprises employ 950 workers or 25.47%. According to the collected data, SMEs employ 74.52% of the workers.

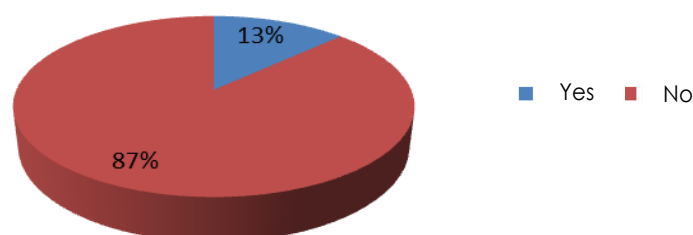
Awareness of venture capital funds

Most respondents (87.1%) were unaware of venture capital funds before this research, which is a devastating fact (Chart 1).

Chart 1

Awareness enterprises of the sample of venture capital funds

Do you heard about VC funds before this research?



Source: Authors

In addition, there is a higher percentage of respondents (almost 90%) who are not familiar with the way in which these funds operate, and therefore do not know how to get the funds from these funds (even 95% of them answered this question negatively). It is also interesting to mention that two of the respondents know how these funds operate, and they have not even heard of them, which is a contradiction, and it can be seen from the following table (Table 2).

Table 2

Awareness of venture capital funds and the way they operate

Have you heard of venture capital funds?	Do you know how these funds operate?		In total
	Yes	No	
Yes	11	5	16
No	2	106	108
In total	13	111	124

Source: authors

That the respondents in the sample are completely ignorant of the existence of venture capital funds can be sufficiently confirmed by the fact that only one of them knows about the funds that exist in the region, in the European Union and in the world. On the other hand, only two respondents know some companies that have financed their operations from these funds. Having in mind the previous analysis of the respondents' awareness of venture capital funds we can with great certainty say that they are much uninformed on this matter.

The following are most commonly used as a source for financing liabilities (short-term and long-term ones):

- only a bank loan or a loan in combination with some other sources (104 respondents or approximately 84%).
- money from family and friends comes in second place, which, independently or in combination with other sources, appears 34 times in our sample, or 27,4%.
- the most significant of the other sources is leasing, amounting to 15,3% of total respondents.

It should also be noted that none of the companies in the sample use the funds that come from venture capital funds. As the most common reason why they opt for a bank loan the companies mentions availability and speed (almost all of them chose one of these two available options or they combined them).

Companies in our sample relatively take care of the technological progress of their business. When asked whether they regularly introduce new technologies, respondents were divided, i.e. there was approximately the same number of those who said that they had introduced new technologies, as well as those who said that they had not introduced new technologies (Table 3).

Table 3
Introduction of new technologies in the companies

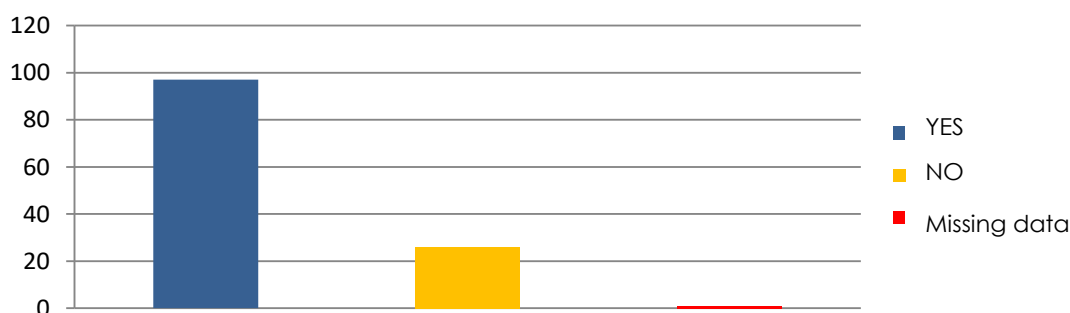
Do you regularly introduce new technologies?	Number	%	Valid %
Yes	64	51,6	52,5
No	58	46,8	47,5
In total	122	98,4	100,0
Missing data		1,6	
In total		100,0	

Source: authors

When asked whether they regularly introduce new technologies, 64 companies or 51,61% of the total sample responded positively, while 58 companies or 46,77% gave a negative answer. Two companies did not provide an answer to this question. Assuming that the data we obtained from the research are realistic, we have a good starting point for the formation of venture capital funds.

No company that participated in this research, had never applied for access to the funds of venture capital funds. What is very important for our research is the willingness of companies to finance their business from venture capital funds. Therefore, we asked the question which relates to the willingness of companies to finance their business from these funds. Most of the companies in the sample are still ready to finance their business in this way, as shown on the following chart.

Chart 2
The willingness of companies to finance their business from venture capital funds



Source: authors

On the chart above we see that the 97 companies in the sample, or 78,22% of companies are willing to finance their business from venture capital funds, while 26 companies in the sample, or 20,97% of companies responded that they would not be willing to finance their business from these funds. Therefore, we conclude that it would be useful to establish such funds in the B&H.

When we look at the reasons why companies are willing to commit their financing in this way we can not said what is the key reason, because they chose more than one answer. In this way, it can not be determined what is the most important reason or which is more common, because they all chose several reasons, such as:

- Division of risk and results;
- Commitment to the business development and success of the company;
- It does not burden the cash flow of the company, and
- Return to the fund depends on the growth and success of the company.

In the end, we can see affirmative structure of answering to the question: Will they be more interested in venture capital funds after this questionnaire, with the aim of financing its business from these funds? The majority (73 companies or 58,87%) responded that they will continue to be interested in financing from venture capital funds, but there is a significant part of undecided respondents (27,4%) as we can see in Table 4. Almost all who are more interested are willing to be financed in this way, which can not be said for others. This difference is statistically very important ($p < 0,01$) and the chi-square test confirmed it.

Table 4

Has the questionnaire increased your interest in these funds?

Answer		%
Yes	73	58,9
No	17	13,7
Missing data	34	27,4
Total	124	100,0

Source: authors

Table 5

The willingness of companies to finance their business from venture capital funds

		Would you be willing to finance your business from these funds?		Total
		Yes	No	
Will you be more interested in funds after this questionnaire?	Yes	70	3	73
	No	2	14	16
	Don't know	25	9	34
Total		97	26	123

Source: authors

Table 6

Chi-square test

	Value	Degrees of freedom
Pearson Chi-Square	55,547 ^a	2
Likelihood Ratio	50,501	2
Linear-by-Linear Association	12,756	1
N of Valid Cases	123	

Source: authors

According to these data we can see that the most of the respondents replied that, after this research, they will pay more attention to venture capital funds as a source of financing of their business. By this, we believe that the research was conducted successfully, because more than half of respondents became interested in the topic of our work.

Conclusion

In our research, we observed that, in general, most companies use bank loans as external sources of funding (84% of the companies in the research sample use bank loans). The most common reason why companies are opting exactly for a bank loan is the availability and speed. However, bank loans are becoming less favorable, especially for companies that are at the beginning of their development.

According to our research, the formation of venture capital funds would lead to economic growth and development in the B&H, through the support to SMEs and increasing employment. Most companies in the sample (97 out of 124 or 78,22%) which participated in the research expressed their willingness to be financed from the venture capital funds. Thus, we have confirmed our assumption that the formation of venture capital funds in B&H would contribute to the growth and development of small and medium enterprises through the commercialization of innovation, and thus the growth and development of economy of B&H in general.

When we speak of B&H, in general, we see that the situation is far from ideal. There is not a single venture capital fund that would invest in companies in the country and the region. Specifically, in B&H, which is by itself a complex country, even laws in the entities are not harmonized to the fullest extent. Therefore, first laws should be harmonized with the EU legislation, and then laws between the state and entities should also be harmonized, as well as the laws between the two entities. International financial institutions such as USAID, EBRD, and IFC support the development of venture capital funds through their programs of support to developing countries, so it could be expected in a long term period that these measures facilitate the development of these funds in our country as well. Based on the research and literature review, in part, we proved our hypothesis, so we concluded that the formation of venture capital funds would contribute to the economic growth and development of the RS, through supporting the development of innovative SMEs and increasing employment and commercialization of innovations.

The main limitation of our study is that the research was conducted on a relatively small sample compared to the statistical weight (1.31%). We wish to emphasize that the companies poorly responded to the invitation to participate in this research. Data may vary depending on the data source. As a statistical weight we chose the total number of companies that submitted financial statements to the Agency for IT and Financial Services (APIF) in 2014 ($n = 9,450$). We believe that it is necessary to introduce a single central register of economic entities in the Republic of Srpska in order to solve this problem and to make researches a little bit easier in the future.

References

1. PIF – Agency for IT and Financial Services (2012) APIF data base, Available at: <http://www.apif.net/index.php> (2/27/2016)
2. Awe, S. (2006). "The Entrepreneur's Information Sourcebook: Charting the Path to Small Business Success". London: Westport Connecticut (pp. 89 - 90).
3. Corman J., Lussier N. R. (1996). "Small business management: a planning approach", Chicago: R. D. Irwin (pp. 9-13).
4. Croatian Private Equity and Venture Capital Association, Main page, Available at: <http://www.cvca.hr> (2/26/2016)
5. Ćudić, B. (2012). "Venture Capital Funds". Finrar, No. 11. (pp. 17-19)
6. Drucker, P. (1995). "Innovation and Entrepreneurship", Economic Review, Belgrade (p. 89).
7. Geronikolaou, G., Papachristou, G. (2008). "Venture Capital and Innovation in Europe", Aristotle University of Thessaloniki (pp. 4-6).

8. Investment-Development Bank of the Republic of Srpska, <http://www.irbrs.org> (2/28/2016) Keuschingg, C. (2002). Venture Capital Backed Growth, University of St. Gallen (pp. 65-67).
9. Petković, S., Berberović, Š. (2013). "Economics and Management of Small and Medium Sized Enterprises". Principles and Policies. Banja Luka: University of Banja Luka, Faculty of Economics (pp. 88-110).
10. Romain, A., Van Pottelsberghe de la Potterie, B. (2004). "The economics impact of Venture Capital" (pp. 31-35)
11. Schertler, A., Tykvoval, T. (2009). "Venture Capital and Internacionalization", Center for European Economic Research (pp. 3-5).
12. Shumpeter, J.(1975). "Capitalism, Socialism and Democracy", Harper and Row, New York (p. 56).
13. Vukmirović, N. (2006). "Modern Entrepreneurship", Faculty of Economics, Banja Luka (pp.7-8).

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