

THE IMPORTANCE OF VENTURE CAPITAL FINANCING OF START-UP COMPANIES

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Abstract. Venture capital due to its specificity may successfully finance companies in all stages of business, even those extremely specific and difficult. Start-up as a first phase of the development of the company is such a case. The risk of failure of the project is extremely high and the costs are significant. Funds expect extremely high profits in such a situation, but unfortunately the market offers relatively rare projects which guarantee satisfying rate of returns to the investors. This is the main reason why the development of the venture capital market is so sluggish. Only complex government programs can effectively support the development of this form of financing start-up innovative companies which often face with a real problem of lack of the capital. Given these facts, the paper analyses the financial needs of start-ups and an presents the role of venture capital compared to the other sources of capital.

Key words: start-ups, financing gap, venture capital, innovation, SME sector.

Introduction

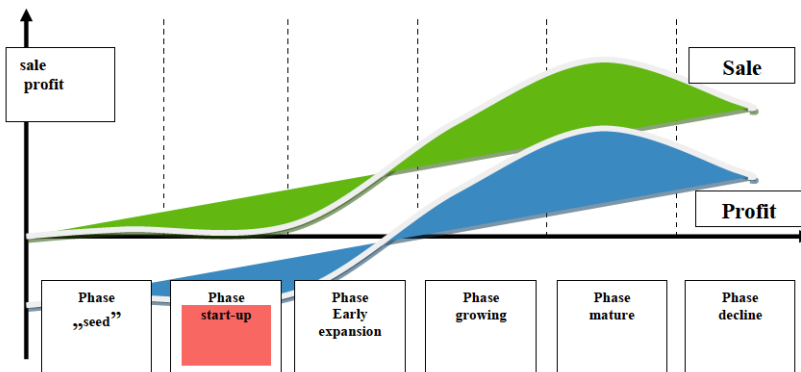
The role played by small and medium sized companies in the development of the economy seems to be obvious. This is an issue that is becoming a frequent subject of discussion between the theorists of economics, but also on the basis of economic practice. It has been proved that these entities take an active part in reducing the problem of long-term and excessive unemployment. A special group that can be distinguished in this area, which is the subject of this analysis are newly created companies struggling with a wide range of various difficulties, including access to effective source of financing. As the effect, the lack of adequate funding can effectively discourage people to develop their own business (Atherton 2012: 28), causing a fundamental obstacle on way to success. Therefore the purpose of this article is to analyze the financial needs of start-ups and indicate the role of venture capital compared to the other sources of capital. For this purpose, we used the results of the research from known research centers.

1. The specificity of start-ups business and their positioning in the sector of small and medium size companies

Definition of start-ups existing in the literature is not precise (Zelek 2013: 7). From a formal point of view, these are firms which have been already registered and operate on a small scale or a while before sales on a larger scale. The most frequently this is a micro or small enterprise. In other words, they are certainly young companies in the early stage of their development.

The concept of “start-up” reveals the relationship of the development phase in the classic life cycle of the company, based on the marketing life-cycle concept (Figure 1).

Figure 1. The life cycle of the company and the level of turnover generated from the sale in relation to earnings



Source: Zelek 2013: 9.

The start-up is the phase of a company’s development from its initiation until the actual selection of its actual presence in the market. It may also be understood as a project that has a product ready for the market, and therefore this phase of development lasts until acceptance of the company by the market, which usually expresses a clear recovery in sales, understood as a phase of early expansion (Zelek 2013: 12).

The group of small companies has a significant impact on the economy of each country, activating innovative processes and contributing to the creation of new jobs. The essential characteristic of small businesses is the ability to respond quickly to the changing needs and preferences of the consumers. They are definitely an important element of the market economy. The quantity of entities in this group over the years is presented in Table 1.

Table 1. Structure of enterprises by size in 2011 and 2012

Enter- prises by size class	Share in the number of enterprises				Share of employment in the enterprises sector				The share of value added in the business sector			
	Poland		UE-27		Poland		UE-27		Poland		UE-27	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Micro	95,7	95,2	92,2	92,1	37,4	35,6	29,6	28,7	16,6	15,2	21,2	21,1
Small	3,0	3,5	6,5	6,6	11,9	13,1	20,6	20,4	13,0	13,2	18,5	18,3
Medium	1,1	1,1	1,1	1,1	18,9	19,6	17,2	17,3	21,9	22,1	18,4	18,3
Total SME	99,8	99,8	99,8	99,8	68,2	68,2	67,4	65,5	51,5	50,5	58,1	57,6
Large	0,2	0,2	0,2	0,2	31,8	31,8	32,6	33,5	48,5	49,5	41,9	42,4
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: SBA, 2014: 2.

Table 1 shows a constant dominance of small and medium size (SME) group. The share of the SME sector in GDP is significant. It is confirmed by the Statistical Office (GUS) survey, according to which, in recent years it reached the level of 47-48%. Only a micro companies in this group declined in this area. During the years 2004-2011, upward trend of the share of large companies in GDP in Poland was observed (from 21.9% in 2004 to 24.5% in 2010). When verifying medium and small businesses it is difficult to identify clear trends. Their share in the GDP in 2009-2011 increased from 10.1% to 10.4% (medium-size enterprises) and from 7.7% to 7.9% in the case of small companies. The last group of microenterprises recorded a downward trend - from 30.4% in 2009 to 29.4% in 2011 (PARP 2013: 16). Additionally, in contrast to the most of the EU countries, the SME sector in Poland is very shredded, with predominance of family businesses. However, according to Eurostat, the SME sector is very important for the economy as it generates nearly 75% of jobs, and small and medium-size enterprises produce over 60% of total EU GDP.

2. The financial needs of companies in various stages of development

Selection of sources of business activities financing is determined by a wide range of different factors. The company with a stable position on the market has different possibilities of raising capital. That is caused by its history, reputation among business partners, etc. For confirmation, Table 2 shows the stages of financing innovative companies that have different characteristics in terms of the objectives of the company, its market position, the stage of development of an innovative project, needs of the capital and abilities to obtain external financing (Lis 2016: 4).

Table 2. Life cycle of innovation

Stages of development of the entity	Objectives of funding	The specificity of funding
Sowing stage	Feasibility Study Financing <ul style="list-style-type: none"> – Creation of the project idea and its continuous improvement – Analysis of market potential – Analysis of legal conditions – Final stages of research activity – Test production / technology – Activities related to the certification and admission to trading 	<ul style="list-style-type: none"> – The most difficult to secure financing – High technical risks associated with new or upgraded technology – High market risk associated with lack of market experience with a new product – High risks associated with management and those relating to the management team – The need for funding is relatively small
Start stage (start-up)	Financing activities related to the entering the market <ul style="list-style-type: none"> – Launching the production and presentation of the product /service to the market – Intensive marketing activities – Creation of an initial organizational structure – Key areas of business 	<ul style="list-style-type: none"> – The need for significant funding – Moment of verification of business model – acceptance or rejection of the project by the market – High level of risk of project financing
Early stage of expansion	Financing activities focused on building a market position <ul style="list-style-type: none"> – Intensive marketing activities – Increasing production capacity – Effective distribution strategy – Team building workers 	<ul style="list-style-type: none"> – Expenditures for financial development still considerable high – Financing risk is much lower (moderate) – achieving operating profitability
Step growth / expansion	Financing activities related to expansion of the business: <ul style="list-style-type: none"> – Expanding the product range – Expansion into new markets (including foreign ones) – Implementation of the new technologies – The inputs are normally directed to market measures - promotion, brand and distribution channels building 	<ul style="list-style-type: none"> – Financial position of the company is stable – Funding with relatively minimal risk

Source: Own study based on Matusiak 2013: 10.

Table 2 presents the four main stages of development: the sowing stage, start-up stage, early stage of development and expansion (Głodek 2006: 13), and is used mainly for analysis carried out on funding. One can see that the various stages of financing of the companies have different characteristics, which is caused by different parameters at every stage of development.

Seeding stage (seed-up, seedcorn) – a concept phase of the project that includes financing of activities initiating the existence of the market, and building a business model. The final effects of this phase are: ready management team,

product prototype, ready business plan preceded by market research (Matusiak 2008: 367).

Start-up stage (start-up) – includes the financing of operational activities aimed at launching the production and presentation of the product / service on the market, supported by intensive marketing activities and therefore requires a large financial investment. This is an extremely important and risky time moment for the company.

Early stage of development – needs funds for stabilisation of the market position. For the new company, this is time of intensive market activity, capacity expansion and further recruitment to build and expand the sales network. The risk in funding of this step is much lower than in the previous stages (Sobańska, Sieradzan 2004: 17).

Expansion stage – includes funds for introducing new products, entering new markets (including foreign ones) or implementation of the new technologies.

The last stages of the life cycle of the company, like maturity and decline are not so significant from the point of view of this analysis.

The lack of acceptance of the business model by the market does not mean abandoning the project for the majority of entrepreneurs, as rotation is a characteristic feature of the start-up project. Product/service evolves, its key elements like business model, distribution channels or the product, are improved constantly during the life of a start-up. Experience shows that due to the high risk of such projects, only 10% will survive on the market with the perspective of further development.

Despite the dynamic development of the financial market, problems associated with raising capital to finance start-up companies are, however, constantly existing. Key capital needs of young companies are presented in Table 3.

Table 3. Key capital needs of young companies

Key capital needs of young companies		
Constant capital – Start-up – Expansion and development – Innovation – Financing	Working capital – Vulnerability in the current liquidity – Seasonal fluctuations – The bridge financing – Short-term measures	Assets – Technologies – Fixed assets – Intangible assets
Types of capital		
Private capital – incubation and development	Short-term financing – up to 3 years	Medium – long term financing
Sources of capital		
– Personal Investments – VC / PE – The resources of the public sector	– Banks clearing – Financial houses – Factoring companies – Leasing companies – The resources of the public sector	– Banks clearing – Financial houses – Factoring companies – Leasing companies – The resources of the public sector

Source: Zelek 2013: 11.

At first sight, one can see many obstacles which include: low level of regulation and thus high costs of financing. Furthermore, some segments of the market are not able to develop without the public support.

3. Sources of financing of the companies

Selection of the most optimal sources of financing often determines the possibility of survival in a highly demanding and volatile market. Due to the unique characteristics, each sector or even each company may present extremely different needs in this area. As indicated by all available studies, microenterprises have more problems to reach external resources of financing compared to other SMEs.

It should be clearly marked, that methods of financing have been widely described by experts in economic theory. According to Paul et al. (2007), among the factors that determine preferences for the type of financial capital in small business start-ups, one can find the approach to financial security or preferences for the risk taken. Experience from the market evidently shows, that in first step the companies in the analyzed group choose the informal capital, belonging to the owner or co-workers where no one can interfere into the business, allowing them to feel independent and satisfying their ambitions. Besides, the investment of own funds demonstrates commitment and a strong desire to get succeed. When they find a financing deficit, they decide for alternatives methods like venture capital financing. Lack of assets, liquidity or information asymmetries make bank loans inaccessible in this stage of the SMEs development. Statistical Office in Poland (GUS) confirmed in 2014 that 72% of the new companies used only own funds, regardless of the legal form, employment and basic type of activity. Bank credit, as a source of investment, was indicated by every sixth active company. Given these facts, venture capital through provision of capital and other value added services should play a significant role in fostering economic growth (Snieska, Venckuviene 2011: 157). This stem from the POH theory (Pecking Order Hypothesis) developed by Paul et al. (2007). What's more, they show that companies which do not use a suggested sequence of selection of the sources of financing, fell out of the market. Examining start-up sector companies and the ways of their financing allow us to find doubts and questions about the effectiveness of all potential sources. Though equity gap is not a directly important condition of efficient functioning and development of business start-ups in the market, bad proportions in the structure of start-ups financing is the real problem (Atherton 2012: 28).

4. Venture capital in financing of start-ups

Venture capital is dedicated for financing various types of projects which, give the possibility of above-average chances of success and profits, taking into account a huge risk (Gompers, Lerner 2001: 145). Venture capital institutions

specialize in financing of all sorts of new economic projects with significant growth potential, but on low level of economic maturity.

As a rule, venture capital is burdened with at least five types of risk:

- risks in the development and implementation phase,
- risk in the production phase, i.e. whether it is possible to manufacture,
- risk in the sales phase – marketing, i.e. whether the product finds a buyer,
- the risk of profitability, i.e. whether the product can be sold with profit,
- the risk of rising: will it be possible to increase the production and development of the project?

Venture capital funds are created by public investors (government agencies, local authorities) and private ones (banks, insurance companies, corporations, pension funds, universities, individuals). Most frequently, however, this method of financing investment applies to companies with insufficient financial liquidity (often unlisted on stock market). In Poland, target of venture capital funds are companies offering a good product with first success on the market, and obviously the lack of capital for faster development and increased production capacity (Tamowicz, Rot 2002: 6). The image of Polish reality in this area compared to selected European countries is presented in Table 4.

Table 4. Investment venture capital in relation to GDP in selected countries

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Greece	0.000	0.002	0.006	0.002	0.004	0.000	0.001	0.000	0.000
Germany	0.034	0.039	0.029	0.029	0.029	0.021	0.023	0.021	0.025
Denmark	0.092	0.074	0.051	0.059	0.067	0.070	0.078	0.075	0.109
France	0.049	0.057	0.048	0.042	0.035	0.032	0.037	0.035	0.034
Poland	0.006	0.016	0.001	0.002	0.007	0.002	0.006	0.006	0.007

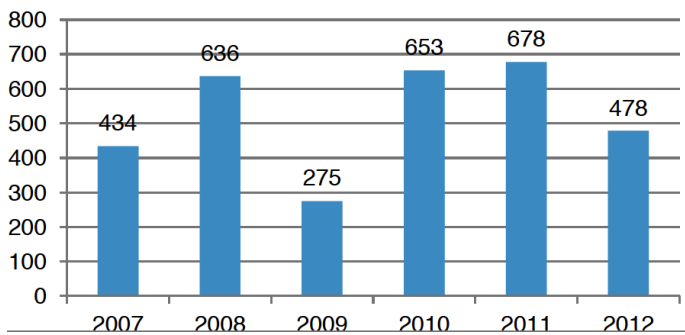
Source: Own calculations based on Eurostat, 2016.

On the basis of this statement, it is obvious that Poland doesn't have specific results in the use of VC in relation to GDP, although there is a noticeable positive, upward trend in this regard. Countries such as France, Denmark and Germany are significantly ahead of us. In the literature one can even meet with the statement that development of the company, because of shortages in VC takes an entire generation (Akim 2011: 296). There is a very important question: does a limited access to venture capital funds effectively reduce the creation and development of start-up companies? The answer is not so obvious. The financing gap, understood as a lack of funding opportunities for companies in the early stages of development, certainly is a factor strongly limiting or even excluding the activities of start-ups. At the same time, it doesn't mean that the role of the VC is so exceptional. Geronikolaou and Papachristou (2012: 458) proved a dif-

ferent relationship: the development of financing needs in innovative start-ups provokes a development of VC but the development of start-ups is definitely not the result of the activity of VC funds.

In 2012, risk investment funds in Europe reached 36.5 billion Euros, of which 3.2 billion was related to investment of Venture Capital funds in the seed stage, start-up and later venture stage. On the other hand, in Central and Eastern Europe, the value of all investments in 2012 amounted to 1 billion, but only a little over 100 million Euros were invested in companies in a seed stage, start-up and later venture stage (seed and start-up - 99 million). Almost half of the capital invested in this part of Europe was invested in Poland (478 million Euros). This is presented in Figure 2. According to the data the European Venture Capital Association (EVCA), 2012 was another period of decline in the value of investments held in this part of the continent (Zelek 2013:121).

Figure 2. The value of investments made in Poland with the participation of VC in the years 2007-2012 (in million Euros)



Source: Zelek 2013: 121.

Conclusions

Venture capital is a form of financing the development of private enterprises of the equity medium or long term, which gives the company the financial stability and allows to focus on business projects. Through the acquisition of shares of private or privatized companies, venture capital funds share the risks associated with business, not expecting additional guarantee or security. Becoming co-owner of the company and bearing in mind the fact that the invested capital is saddled with a serious risk, financial investors are counting on cooperation with both entrepreneurs and other shareholders of the company, trying to contribute to increasing the company's value and to maximize long-term benefits. In principle, venture capital is not involved in direct management of the company, but retain control over through the participation of their representatives in the supervisory boards. For this reason, venture capital should

occupy an important place in funding innovative projects by small and medium-sized enterprises. In practice, the situation seems to be, however, quite different. The share of VC in Poland is growing, but still not significant enough, as a result of wide range of various conditions, including the unfavorable regulations. Many scientists agree that the government can foster the economy by creating efficient frameworks for venture capital support (Cumming 2007).

References

- Akim, M.S. (2011), Does venture capital spur patenting? evidence from state-level cross-sectional data for the United States: 295-300.
- Atherton, A., (2012), Cases of start-up financing. An analysis of new venture capitalisation structures and patterns, *International Journal of Entrepreneurial Behaviour & Research*, 18(1): 28-47.
- Cumming, D. (2007), Government policy towards entrepreneurial finance: Innovation investment funds, *Journal of Business Venturing*, 22(2): 193-235.
- Eurostat, available at: <http://ec.europa.eu/eurostat> (accessed 21 June 2016).
- Fourati, H., Affes, H. (2013), The capital structure of business start-up: Is there a pecking order theory or a reversed pecking order? – evidence from the panel study of entrepreneurial dynamics, *Technology and Investment*, 4: 244-254.
- Geronikolaou, G., Papachristou, G. (2012), Venture capital and innovation in Europe, *Scientific Research*, available at: http://file.scirp.org/pdf/ME20120400012_15829170.pdf (accessed 21 June 2016).
- Głodek, P., Gołębiowski, M. (2006), *Finansowanie innowacji w małych i średnich przedsiębiorstwach*, Vol. 2, Warszawa: Vademecum Innowacyjnego Przedsiębiorcy.
- Gompers P., Lerner J. (2001), The venture capital revolution, *The Journal of Economic Perspectives*, 15(2): 145-168.
- GUS (2014), *Warunki powstania i działania oraz perspektywy rozwojowe polskich przedsiębiorstw powstałych w latach 2008-2012*, Warszawa, available at: <https://www.google.pl> (accessed 21 June 2016).
- Juchniewicz, M., Grzybowska, B. (2010), *Innowacyjność mikroprzedsiębiorstw w Polsce*, Warszawa: Polska Agencja Rozwoju Przedsiębiorczości.
- Lis, A. (2016), *Innowacja w przedsiębiorstwach - Klub innowacyjnych przedsiębiorstw. Dostępne źródła finansowania działalności innowacyjnej w firmach*, available at: www.pi.gov.pl/PARPFFiles/file/PARP_tresci/Anna_i_Adrian_Lis.pdf (accessed 21 June 2016).
- Matusiak, K.B. (ed.) (2008), *Innowacje i transfer technologii – słownik pojęć*, Warszawa: Polska Agencja Rozwoju Przedsiębiorczości.
- PARP (2011), *Jak zostać i pozostać przedsiębiorcą. Informator dla nowopowstałych firm*, Warszawa.
- Paul, S., Whittam, G., Wyper, J. (2007), The pecking order hypothesis: does it apply to start-up firms?, *Journal of Small Business and Enterprise Development*, 14(1): 8-21.

- SBA Fact Sheet Poland (2014), available at: [file:///C:/Users/Monia/Downloads/poland_en%20\(1\).pdf](file:///C:/Users/Monia/Downloads/poland_en%20(1).pdf) (accessed 21 June 2016).
- Snieska V., Venckuviene V. (2011), Hybrid venture capital funds in Lithuania: Motives, factors and present state of development, *Inzinerine Ekonomika – Engineering Economics*, 22(2): 157-164.
- Sobańska, K., Sieradzan, P., (2004), *Inwestycje private equity/venture capital*, Warszawa: Key Text.
- Tamowicz, P., Rot, P. (2002) Informator. Fundusze venture capital w Polsce, available at: <https://www.parp.gov.pl/files/74/81/100/venture.pdf> (accessed 21 June 2016).
- Wang J. (2015), How do start-up companies explore the strategies to pursue market share and benefits – take maotai-flavor liquor in Renhuai as an example, *Modern Economy*, 6: 294-303.
- Wyżnikiewicz, B. (2013), *Polskie MSP na drodze do nowoczesności*, Leviatan, available at: <http://konfederacjalewiatan.pl/> (accessed 21 June 2016).
- Zelek, A. (Ed.) (2013), *Nowoczesna inżynieria finansowa dla firm start-up w Polsce w latach 2009-2012 – raport z badań screeningowych*, Wydawnictwo Naukowe Zachodniopomorskiej Szkoły Biznesu w Szczecinie, available at: <http://docplayer.pl/2135611-Nowoczesna-inzynieria-finansowa-dla-firm-start-up-w-polsce-w-latach-2009-2012-raport-z-badan-screeningowych.html> (accessed 21 June 2016).