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STARTUPS FINANCING IN POLAND

Startups are companies with a short history of operation which try to commercialize innovative ideas. They usually try to use innovative business models. In the case of market success, they are able to grow very quickly and become large organizations, however their activities in the early phase are characterized by high risk. Due to this, they require special financing methods. The article characterizes and compares the most important sources of financing for startups. The attention was paid to the role of financing in creating conditions for the development of such enterprises. Also, the sources of financing startups in Poland and Europe in recent years have been analyzed.

Keywords: startups, financing, sources of financing.

1. INTRODUCTION

The purpose of this article is to analyze the sources of financing for startups in Poland. The structure of the article is as follows. In the first part, the definition of startup was reviewed and considerations regarding the role of financing in the creation and development of such organizations were made. The second part presents the characteristics of various forms of financing in the context of their suitability for the development of startups. The third part of the article presents a comparative analysis of the methods of financing startups in Poland and Europe. The analysis of the literature on the subject allows formulating the following research hypotheses:

H1: Due to the specific characteristics of startups, venture capital funds and business angels play an important role in their financing.

H2: The share of financing obtained from venture capital funds and business angels in the case of startups is higher than in other newly created enterprises.

In order to verify the hypotheses, the results of the most important surveys carried out among Polish startups in 2016–2017 were analyzed. A critical analysis of the literature regarding various methods of financing the operations of enterprises as well as the specificity of startups operations were also carried out, in particular in the context of their financial needs.

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In the literature on management a lot of space is devoted to the activities of startups. The concept of a startup in the colloquial sense is sometimes abused and used to define each newly created enterprise. This is not the right approach as a startup is a special enterprise. For the needs of one of the most serious research projects related to startups in Europe, the definition of startup was adopted. Is a company with a history no longer than 10 years old, which additionally meets one of two conditions: it is focused on a rapid growth (measured by generated revenues and number of employees) business or technology (Ripsas, Hentschel, 2015). A similar approach is used by the consulting company Deloitte, according to which a startup is: “a venture carried out to produce new products and services in conditions of high uncertainty about a history not longer than 10 years” (Deloitte, 2016). According to a report by scientists from the Universities of Berkeley and Stanford (Marmer, Hermann, Dogrultan, Berman, 2011): “Startup is a temporary organization designed to transform into a large enterprise. In the early stages of its activity, it is looking for a suitable fit of its products to the needs of the market. In the mature stage, the startups are looking for a repeatable and scalable business model that will transform into a large enterprise operating under high confidence”. Research conducted among European startups (European Startup Monitor, 2016) prove that they fulfill a very important role in the development of the digital economy and creating innovations. Over half of the companies surveyed (51.5%) believe that their products are innovative on an international scale. According to the ESM 2016 report, the largest percentage of startups identifies its main activity in the area of software development – 15%, the second place is software development in the SaS model (software as a service) – 12.2%, the third place are industrial technologies, production, and hardware – 8.3%. Many startups operate in the global market – 55.2% of their revenues are generated outside the market of the country they come from.

2. THE ROLE OF FINANCING IN THE DEVELOPMENT OF STARTUPS

In the literature, five stages of startup development are most often mentioned (Blank and Dorf, 2013):

- generating an idea and creating a team implementing the project,
- product validation and development,
- searching for and obtaining financing,
- business scaling,
- maturity.

In the case of many startups, the first two phases of development do not require very large investments, but at some stage of development it becomes necessary to obtain external financing. Due to their specificity, startups require special financing tools, this is associated primarily with a very high risk of a failure. This excludes in practice the use of many traditional sources of financing such as bank loans. For banks of this type, projects are too risky. The leasing is very popular among “ordinary” newly established enterprises as startups do not need to finance the purchase of fixed assets and usually only working capital (research funding, employees' remuneration etc.). Therefore, the key role in the growth of startups are institutions and investors specialized in financing risky ventures, mainly seed and venture capital funds, business angels. Increasingly, mechanisms related to crowdfunding are also used. In some countries, government institutions aware of significant importance in the startups' economy implement special programs supporting them in obtaining financing (grants for the start-up and development of operations in selected sectors, co-financing of

research, access to preferential debt financing). Such forms of supporting startups are characteristic, for example for the European Union countries.

Research carried out among Polish startups shows that the most important factors that can contribute to a success or a failure of a given project are (Sobczak, Dudycz, 2016): a product, a team and financing. The authors point out that cooperation with an investor who can provide substantive support in the development of an enterprise, help in establishing business contacts and supporting them in obtaining first contracts is as important as gaining financial resources. Seed funds, venture capital or business angels perform such a role.

The availability of financing is undoubtedly an extremely important factor affecting the development opportunities of startups. Besides other elements that make up the institutional and legal environment of these enterprises are equally important. According to the authors of the report "Diagnosis of the ecosystem of startups in Poland" (Deloitte, 2016), experience of countries recognized as leading in creating and developing startups indicates that their harmonious development requires a properly functioning environment, which in the report has been described as an ecosystem. The key areas of this system are:

- financing,
- legal regulations,
- human capital,
- social capital,
- institutional environment.

The report makes a relative analysis of the ecosystem functioning in Poland in relation to developed countries. It was assessed on a scale from 1 (the lowest grade) to 4 (the highest grade). According to the report, the highest scores were assigned to areas related to legal regulations and the institutional environment (respectively: 2.55 and 2.5), human capital (2.27) was slightly worse; the lowest ratings were attributed to financing and social capital (1.68 and 1.5).

In the literature devoted to the ecosystem of startups, sometimes a few more key factors favoring their formation are mentioned. According to Feld (Feld, 2012), one can list the 9 most important elements influencing the creation of a vibrant startup community. Among them, access to capital plays an important role. The most important institutions that such access can create are venture and seed capital funds as well as business angels.

3. FINANCING SOURCES FOR STARTUPS

An activity of startups is very risky, according to some studies even ninety percent of startups fail to survive (Marmer et al., 2011). Due to such a high risk they need to look for specific sources of financing among instruments and institutions accepting such a level of risk. The creation of startups is very often financed in full from the capital contributed by the founders. As the product develops and the team implementing the project increases, the founder's capital often starts to be insufficient to further finance the development of a company. In this situation, the further development of the startup is conditioned by the possibility of obtaining external sources of financing. The basic sources of capital that can be used by a startup (except the founders' equity) are as follows:

- capital obtained from family and friends – it can be transferred in the form of a loan or sale of new shares of the company. The possibility of obtaining such funds depends on the financial situation of persons who the owners of the newly created enterprise

as well as their acceptance of the risks associated with such undertaking will turn to. On the macro scale, an access to such capital is conditioned by the general level of the society's wealth and propensity to save. The founders, knowing the degree of risk associated with the development of the company, often do not want to expose people from the family and friends to potential financial losses that would inevitably arise in a situation when the startup falls;

- seed capital or venture capital funds – capital is most often obtained in the form of sale of new shares to the fund in rare cases, financing in the form of a loan. These types of funds are the most natural partner of startups in their development, in addition to providing capital, they help the company in the process of product development and the development of an appropriate business model (Hellmann and Puri, 2000). Seed / venture capital managers are most often people with rich professional experience and very extensive business contacts is extremely valuable in the process of obtaining first orders, establishing cooperation with other entities (including, for example, those in the portfolio of a given fund) and supporting a startup in subsequent its growth stages. In 2016, total venture capital investments in Europe reached EUR 4.3 billion (Invest Europe, 2016). Funds invested capital in 3,124 enterprises, the largest investments in the ICT sector (communications, computer and electronics) – 44% of the value of all investments and the medical / biotechnology sector – 27%. The value of investments of VC funds in startups in Poland in 2016 amounted to 15.1 million Euros and decreased compared to 2015 when it amounted to 17.8 million Euros;
- business angels are individual, highly affluent people offering share financing. Most often these are entrepreneurs who have achieved success in running their own enterprises and are willing to invest some of their savings. As a rule, they prefer investments in enterprises with high development potential, while accepting a high level of risk related to this (Grzywacz, Okońska, 2005). Investments made by business angels are, as in the case of venture capital, associated with additional benefits for the company. Business angels support the company in the process of formulating strategies, help establish business contacts, share their experience in running and developing a business. Business angels often merge into associations, organizations or networks, cooperating with each other in the search for and analysis of potential investments. According to EBAN (EBAN Statistic Compendium, 2016) estimates, the total investment of business angels in Europe in 2016 amounted to EUR 6.7 billion and the number of investments made was 38230. The activity of business angels in Poland in recent years has been systematically growing. In 2013, the value of such investments amounted to 6.6 million Euro, in 2014 – 9.5 million Euro in 2015 – 12.4 million Euro. In 2016, the total value of the investment reached 12.6 million Euro. At the same time, these data refer only to the visible market, i.e. investments of business angels that operate in associations and networks related to EBAN. According to the association's estimates, this market accounts for only 10% of the total investment market of business angels;
- government assistance programs – capital can be obtained in a wide variety of forms, both returnable and non-returnable ones, depending on the policies of individual countries. In Poland this type of financing often took the form of a non-returnable subsidy co-financing the development of a given venture, or it may take the form of

preferential loans. More generally, government assistance programs cover all activities that can be used by startups implemented by institutions supporting entrepreneurship and innovation. Support indirectly financially backs up newly established enterprises by reducing the costs of their operation (for example, by offering access to specialist equipment or office space at preferential prices) as well as providing them with additional services (training, mentoring, consulting, legal or accounting services). In Poland, the whole of this type of institution is called “centers of innovation and entrepreneurship” (Bąkowski, Mażewska, 2015) and includes a lot of organizations that can help startups. Among them there are: training and consulting centers, business centers, business incubators, technology park, scientific and innovation centers. Another type of indirect support for startups is government assistance programs aimed at developing the sector of seed and venture capital funds (e.g. co-financing or full financing of the creation of funds), activating business angels (e.g. financing the creation of organizations associating such persons) or financing/co-financing the creation of loan funds or credit guarantee funds;

- crowdfunding – is becoming an increasingly popular form of obtaining funds. The idea of crowdfunding is to appeal to a wide community with an offer to finance a specific project which may or may not be of a business nature. The community is usually focused on a specific internet portal which associates the originators and people ready to provide financing. In practice, there are various forms of such financing, business projects are most often financed on the basis of community-based equity or debt financing (equity-based crowdfunding or credit-based crowdfunding), sometimes with a model of reward-based crowdfunding. In such cases, the project's supporters receive shares in a given venture, grant loans or finance them in return for certain rewards (e.g. an opportunity to buy a product created by the company at a special price or unique, unique features). Charitable or social projects are most often financed on the basis of donation-based crowdfunding or a reward-based crowdfunding model. The scale of the potential possibilities of this method of obtaining funds is shown in the first and the most popular social funding portal platform kickstarter.com, which started in 2009 and so far 14 million people funded 136550 projects through it, transferring funds worth a total of 3.4 billion USD;
- internal financing – capital from the cash flow generated by the company. This type of financing is available only for successful ventures and most often in the later phase of the startup's development. In the case of the vast majority of startups, achieving profitability enabling financing from internal capitals is a long-term process and requires the prior use of other sources of financing.
- private placement shares – the capital comes from the issue of shares directed to selected financial investors (other than venture funds or seed capital funds), usually after the issue the company may apply for listing its shares in the NewConnect market. In Poland, private issue may be addressed to no more than 150 names of specific investors. This is a relatively rare form of raising capital by startups, this is due to the fact that investors are not very willing to buy shares with such a high level of risk.

Table 1 compares the most important features of various types of startup funding.

Table 1. Characteristics of selected methods of raising capital by startups

	Capital contributed by the founders	PE/VC funds; business angels)	Crowdfunding	Private placement issue (NewConnect)	Internal financing
The amount of capital that can be acquired	Limited by the financial possibilities of the owners.	Dependent on the financial situation and prospects of the company, and the situation in the capital market.	Limited, usually smaller than in the case of selling shares to financial investors.	Depends on the financial situation and prospects of the company, and the situation in the capital market.	Limited by cash flow) generated by the company
Ease to raise capital	Very big assuming that the owners have the necessary capital	The procedure for selecting entities in which they invest funds is very strict	Competition on the market for obtaining such funds is very large, the success depends on the effective interest of community in the project	Large, if the company can present a convincing plan for further development	Very big
Control over the company	Full	Financial investors usually want to have a significant impact on the company's operations	Full for most types of crowdfunding	Usually, existing owners maintain control over the company	Full
Costs	Very low	Very low	Low	Low	No costs
Additional benefits	No	Support in the process of company management, active participation in the working out the development strategies, assistance in obtaining further financing.	A large marketing and promotional effect, an easy way to get information about the company and its products or services to a large group of potential customers.	The possibility of a future capital injection in the future , increase of the company's credibility, marketing and promotional effect	No
Other costs	No	No	No	The necessity of fulfilling specific information obligations	No

Source: author's own study based on (Perz, Kaszuba-Perz, 2013).

While comparing the features of individual sources of financing with the needs and specificity of startups activity described in the literature (high risk of activity, high capital demand in the expansion phase, significant need for support in the process of searching for the optimal business model), venture capital funds are the optimal source of capital for these organizations and business angels. This allows for a positive verification of the first hypothesis.

4. FINANCING STARTUPS IN EUROPE AND IN POLAND

The research conducted as part of the European Startup Monitor project used data from 2515 startups located in European countries and other countries important for the ecosystem of startups in Europe. According to these studies (European Startup Monitor, 2016), the most popular source of financing their activities is the capital contributed by the founders (several sources of financing could be indicated). The detailed data are presented in table 2. Against the background of the countries surveyed, the ESM report in Poland recorded a high percentage of enterprises financed by venture capital (30.8%), among the surveyed startups only in Finland the percentage of enterprises financed by VC was larger and amounted to 44%. In comparison with other countries, Polish startups financed their activities relatively often through crowdfunding (7.7%), which is the third result among the countries covered by the research (after Israel and Finland where the percentage of companies that obtained such financing was 8.3 and 8.0, respectively).

Table 2. Sources of funding for startups in Europe in 2016

Type of financing	Share in% (several indications were possible)
Capital contributed by shareholders	84.5
Family and friends	29.6
Government assistance	26.5
Business angels	23.8
Internal financing	18.6
Venture capital	18.1
Incubators/entrepreneurial accelerators	16.2
Bank loans	14.4
Crowdfunding	3.6
Debt financing by Venture Capital	1.9
Other sources of financing	1.8
IPO	0.1

Source: European Startup Monitor, 2016 (http://europeanstartupmonitor.com/fileadmin/esm_2016/report/ESM_2016.pdf).

It is worth noting that in Europe only 22.5% of startups were financed only from the savings of their founders (the largest percentage of such companies recorded in Great Britain 58.8%, the smallest in Finland 8%, in Poland such companies were 19.2%). In the vast majority, in order to make the company possible, it was necessary to reach for external sources of financing. The value of the capital that was obtained was very diverse, the detailed data on Poland and Europe were presented in table 3. In Poland, over half of the companies (55.6%) gained capital not exceeding 50 000 Euro. In other European countries, the value of capital gained by startups was higher, there were cases when companies managed to obtain financing exceeding EUR 2 million (8.8% of surveyed companies), in Poland among the surveyed companies there were no cases of raising such large capital.

Among the enterprises surveyed in Europe 70.1% planned to raise additional capital within 12 months, in Poland the percentage of such companies was slightly higher and amounted to 82.6%.

Table 3 Average value of capital gained by startups

Average value of capital gained by startups (EURO)	ESM 2016	Poland
1–25 000	24.8%	27.8%
25 000–50 000	11.7%	27.8%
50 000–150 000	21.1%	11.1%
150 000–250 000	7.8%	5.6%
250 000–500 000	9.2%	11.1%
500 000–1 000 000	9.6%	11.1%
1 000 000–2 000 000	6.9%	5.6%
2 000 000–5 000 000	5.1%	-
5 000 000–10 000 000	1.7%	-
10 000 000–25 000 000	1.5%	-
25 000 000–50 000 000	0.2%	-
Over 50 000 000	0.3%	-

Source: European Startup Monitor, 2016 (http://europeanstartupmonitor.com/fileadmin/esm_2016/report/ESM_2016.pdf).

The results of research on the sources of funding for startups in Poland provide results that in the case of some sources of financing differ significantly from each other. Table 4 summarizes the results of the two largest surveys carried out recently. In both surveys, similar results were obtained in terms of the share of equity in financing (72% and 68%) and debt financing (9% and 8%). Significant differences between reports relate to financing by business angels (11% and 33%) and VC funds (25% and 40%).

Table 4. Sources of financing for startups in Poland

Deloitte, 2016		Polish Startup Report, 2017	
Equity (including funds from friends and family)	72%	Equity	68%
Current revenues	44%	VC funds	40%
VC and other funds	25%	PAED or NCR&D	38%
Subsidies	20%	Business angels	33%
Business partner	16%	Accelerator	19%
Business angels	11%	Strategic investor	9%
Debt financing	9%	Debt financing	8%
Crowdfunding	5%	Others (grants, crowdfunding, stock exchange)	8%
Large companies – share support or similar	4%		-

Source: (Deloitte, *Diagnoza ekosystemu startupów w Polsce*, czerwiec 2016 r.; Beauchamp, Kowalczyk, Skala, 2017).

The results of research on the financing of startups with the results of research on financing the start-up of all businesses in Poland are interesting. According to Global

Entrepreneurship Monitor data from 2015 (Tarnawa, Węclawska, Zadura-Lichota, Zbierowski, 2016) the most popular external sources of financing were: government funds (43%), loans (31%), funds from family and friends (29%), funds from the employer (20%). Business angels, VC funds and crowdfunding together accounted for 15% of responses. In the case of startups, these two sources of funding represented (depending on the study), respectively: 36% (Deloitte, 2016) and 73% (Beauchamp, Kowalczyk, Skala, 2017). This confirms previous considerations regarding the specifics of startup funding and points to significant differences in the way they are financed in relation to other companies. Classic companies are more likely to finance themselves with bank loans, while startups must first seek funding from the VC and business angels. In the case of both groups of enterprises, government funds play an important role in financing (in the form of subsidies or indirect support through financing incubators and business accelerators). The research results quoted seem to suggest the truth of the hypothesis number two. Of course, a full and statistically significant verification of the hypothesis will require further research among a suitably selected sample of enterprises from the group of startups and other companies.

5. CONCLUSIONS

Startups play an important role in developing innovation and creating new jobs. The experience of highly developed countries indicates that a harmonious growth requires a properly functioning environment. Relevant legal regulations, the existence of well-developed social and human capital, efficient functioning of institutions supporting such newly created companies, as well as adequate mechanisms of their financing are important. Startups operate in very high risk conditions and most of them fail. The research conducted in Europe and in Poland indicates that startups are most often financed from own resources. In the further stages of their development, the possibility of obtaining funds from venture capital funds or from business angels is extremely important. These types of investors, in addition to providing capital, help the company in the process of product development and the development of an appropriate business model. Research conducted among Polish startups (Beauchamp, Kowalczyk, Skala, 2017) confirm the important role of such financing, indicating that venture capital appeared in 40%, and business angels in 33% of the companies surveyed.

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