

STARTUP COMPANIES, CHALLENGES IN POLAND

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Abstract: 130,000 enterprises are created every day all around the world, some of them are startups, of which nine out of ten are liquidated, 60% in the second year of operation²¹¹. The aim of the article is to present the essence of a startup-type enterprise as the subject most often associated with new technologies and characterized by higher risk than traditional enterprises, but also a higher chance for above-average development and profits.

Research on startups is of great importance. Many of these enterprises end their operation at a very early stage. These enterprises fail because, among other things, they have problems with raising capital, maintaining reputation, securing supplies, they are subject to limitations related to premises and high labor costs. However, many startups that survive and develop their businesses transform into successful enterprises that have an important role in the economy, an example may be Google, Apple or Microsoft. Therefore, this article attempts to define start-up enterprises operating in Poland and to recognize the challenges they must face.

Only five years ago in Poland, the business model based on startups was small. Today, their potential was noticed not only by originators and founders of startups, but also by state authorities. In recent years, many measures have been taken in Poland to improve the conditions in the field of innovation at the government level. The Act on Innovation was adopted; the Polish Development Fund implements programs allowing to increase long-term economic and investment potential.

In order to show that research on startups is important, four main issues were discussed: start-up enterprises were defined and described, startups' life cycles were explained, startups operating in Poland were presented using descriptive statistics and finally, analysis of problems related to starting and development of startups was made.

The research method used in the study is a review of literature, reports and websites as well as descriptive statistics. Startup is a venture that can change the face of the Polish economy so far associated with low labor costs, and which has a chance to turn into an economy competing with companies around the world with innovation and highly qualified human resources.

Researchers can develop each of these stages of company development and analyze the challenges faced by the company at each of these stages in different areas. The purpose of this research is to contribute to the development of a comprehensive startup theory.

Keywords: startup, life cycle, entrepreneurship, innovations

1. INTRODUCTION

One of the important periods during the operation of each enterprise is the initial period in which the decision to set up a business is made, the basic objectives of its operation are determined, the market concept of business is outlined, and finally the registration leading to the formal and legal separation of a new business entity is made. This phase, referred to as the start-up phase, can also be of strategic importance for the further stages of the company's development and growth. Indirectly, it can also contribute to business failures and even the collapse of the business entity in the further period of its operation.

There are several reasons why research on startups is of great importance. First of all, many of these enterprises end their operations at a very early stage, according to the Central Statistical Office, the survival rate for small enterprises in Poland active after 5 years is 30%²¹². Secondly, these enterprises are failing for several reasons, problems with raising capital, strengthening reputation, securing supplies, restrictions related to premises and high labor costs are recurring problems presented in the literature²¹³. Thirdly, many startups that survive and develop their businesses are transformed into successful enterprises and have an important role in the economy (e.g. Google,

²¹¹ Sobczak, R. Dudycz, H. *Determinanty sukcesu i porażki start-upów internetowych*. Wydawnictwo Uniwersytetu M. Curie-Skłodowskiej, vol. L,2, Lublin, pp. 82, 2016

²¹² Główny Urząd Statystyczny. *Warunki powstania i działania oraz perspektywy rozwojowe polskich przedsiębiorstw powstałych w latach 2008–2012*. Warszawa (2014), pp. 33, <http://stat.gov.pl/obszary-tematyczne/podmioty-gospodarcze-wyniki-finansowe>

²¹³ Evers, N. *The Process And Problems Of Business Start-Ups*. The ITB Journal, vol. 4, issue 1, pp. 17-41, (2003)

Apple, Microsoft)²¹⁴. Therefore, this article attempts to define and describe start-up enterprises operating in Poland and to recognize the challenges they must face. In order to show that research on startups is important, four main issues were discussed: start-up enterprises were defined and described, startups' life cycles were explained, startups operating in Poland were described using descriptive statistics and finally, analysis of problems related to starting and development of startups was made.

2. THE LIFECYCLE OF STARTUPS

Startups, although they are a relatively new phenomenon in the economic environment, have received numerous literature studies on their essence and the role they have in contemporary entrepreneurship. They are not one more active entity in a given market sector, but a special type of enterprise, distinguished by characteristic attributes²¹⁵. In the subject literature, a startup is a temporary organization that is looking for a profitable, scalable and repeatable business model²¹⁶. In this case, the term start-up entrepreneurship is a synonym for a startup, which is characterized by high development potential²¹⁷. In essence, this is a search for a model of action that, once tested, can be transformed into a mature enterprise. This definition indirectly indicates the conditions in which this type of organization operates, i.e. high degrees of uncertainty and broadly understood risk²¹⁸. This is mentioned in another definition, in which it was assumed that a startup is a human institution created with the thought of building new products or services under conditions of extreme uncertainty. Following this line of thinking, it should be recognized that it is an organization that creates a certain new quality, goods and services that are inventions, their unobvious enhancements or imitations of solutions already present on the market (imitative innovations). If, therefore, the purpose of the newly created organization is to replicate a certain proven entrepreneurship pattern, it is just another company from the sector of small and medium-sized enterprises. If, however, the basis for its creation is a new idea for a certain field, it will probably be a startup. Thus, a startup can be considered a company in the initial stage of development, operating in conditions of high risk, whose activity is targeted at recipients seeking innovative solutions²¹⁹. In Polish surveys, startup owners define themselves as software producers who sell in the SaaS model and operate preferably in the following industries: mobile applications, e-commerce and internet services²²⁰.

Every enterprise at an early stage of its development goes through several phases. It all starts with an idea, some of them are not yet formally active, at least in a commercial sense, when the business owner has an idea that he thinks can meet the needs of consumers. Other companies have already increased the scale and turned the idea into a commercial product, albeit with a small share in revenues or profits. Still others have gone a long way to commercial success and have already gained market share for their products or services and are already achieving certain revenues and profits²²¹. Figure 1 presents the stages of development of startups.

²¹⁴ Stawasz, E. *Terytorialne aspekty kształtowania zdolności innowacyjnej małych i średnich przedsiębiorstw* [w:] Zrozumieć terytorium. Idea i praktyka, red. A.Nowakowska. Wydawnictwo Uniwersytetu Łódzkiego, Łódź (2013), s. 201-215

²¹⁵ Niklewicz-Pijaczyńska, M. *System wsparcia finansowego innowacyjnych start-upów*. Przedsiębiorczość i zarządzanie, Wydawnictwo SAN, (2016), Tom XVII, Zeszyt 9, Część I, ss. 225–238

²¹⁶ Blank, S. Dorf, B. *Podręcznik startupu. Budowa wielkiej firmy krok po kroku*. Wydawnictwo Helion, Gliwice (2013), str. 19

²¹⁷ Robehmed, N. *What Is A Startup?*. Forbes, (2013), sites/natalierobehmed/2013/12/16/what-is-a-startup/#7c033d214c63

²¹⁸ Ries, E. *Droga Startupu : metoda sukcesu*. Wydawnictwo Helion, Gliwice (2018), str. 28

²¹⁹ Damodaran, A. *Valuing Young, Start-Up and Growth Companies: Estimation Issues and Valuation Challenges*. (2009), <http://people.stern.nyu.edu/adamodar/pdfiles/papers/younggrowth.pdf>

²²⁰ Beauchamp, M. Krysztofiak-Szopa, J. Skala, A. *Polskie startupy. Raport 2018*, Fundacja Startup Poland, Warszawa (2018), s. 31

²²¹ Matejun, M. *Faza startowa jako strategiczny etap rozwoju przedsiębiorstwa*. [w:] Lachiewicz S., Matejun M. (red.), *Zarządzanie rozwojem małych i średnich przedsiębiorstw*, Oficyna a Wolters Kluwer business, Warszawa (2011), s. 61-84

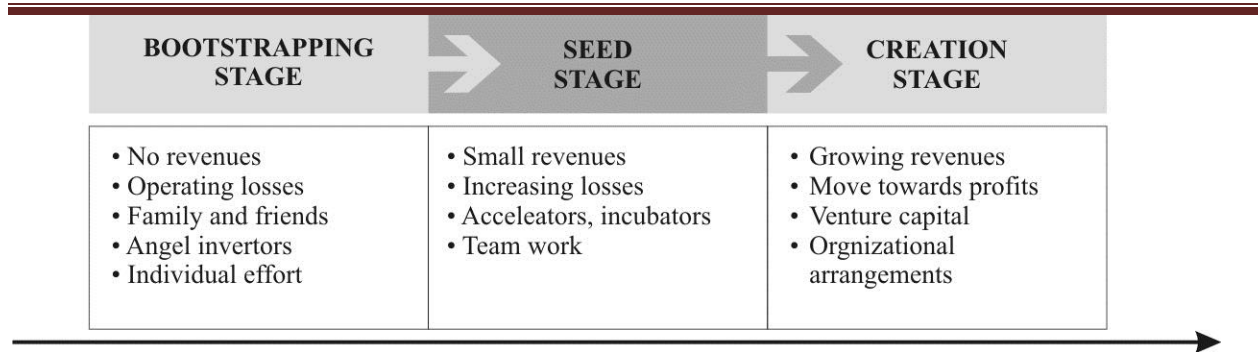


Figure 1: Life cycle of startup

Bootstrapping stage

At such an early stage, the entrepreneur himself initiates actions that will transform his idea into profitable activity. Despite high risk and uncertainty, he continues to work on a new idea for a product or service, creates a team, uses personal funds and asks family members and friends to invest in his idea.

Seed stage

This stage is characterized by team work, prototype development, market entry, project valuation, search for support mechanisms, such as accelerators and business incubators, as well as small and medium-sized investments that increase the likelihood of taking off. At this stage, a large number of startups fail because they cannot find support mechanisms, on the other hand, those who gain support have a better chance to become profitable enterprises.

Creation stage

This stage occurs when the company enters the market, employs the first employees and sells its products. At this stage an organization is created, and the choice of the type of enterprise financing is considered the main source of financing the enterprise. At this stage, venture capital funds can facilitate the creation and development by financing the venture²²².

3. POLISH STARTUPS IN NUMBERS

The results of research carried out by the Startup Poland foundation in the group of 806 startups published in the report Polskie Startupy 2018, show that the average startuper has over thirty years - half of the surveyed population of founders and CEO of startups. Over 3/4 of respondents have a university degree, and only 4% still study. The percentage of surveyed startups that have founders with scientific degree remains at a similar level as last year, or around 20%.

Data collected in the study indicate that the examined startups more often decide to run a company with the participation of two founders than just one, and this trend is growing compared to the results from 2017 from 36% to 41%. Over 32% of respondents admit to co-operation with more than two founders, slightly less than last year 39%. The number of founders of startups in Poland is shown in Figure 2.

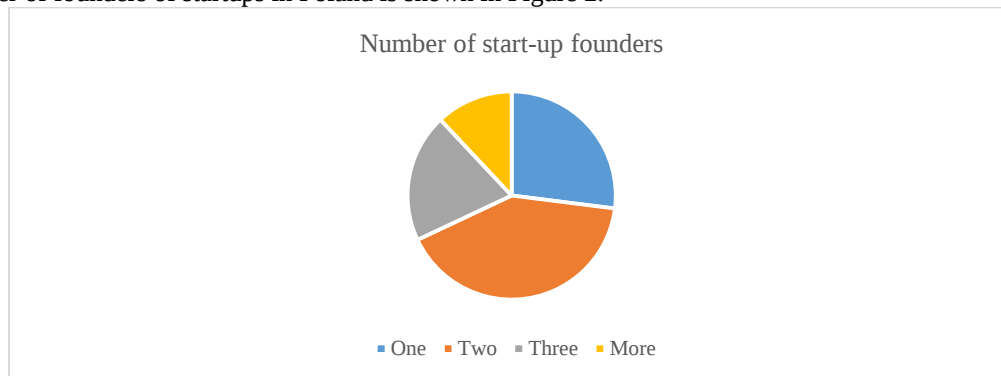


Figure 2: Number of start-up founders

²²² Salamzad, A. [Hiroko, K. Kesim](#), H.K. *Startup Companies: Life Cycle and Challenges*. 4th International Conference on Employment, Education and Entrepreneurship (EEE), Belgrade, Serbia, (2015)

It was also examined whether building an important technological startup requires technical and engineering competence. Despite the common opinion that this should be the case, research results deny this. This does not exclude a classic scenario, in more than half of startups CEO has a technical education (IT, electronics, engineering), but to succeed in the IT industry and new technologies, it is worth studying social sciences (economics, management, sociology, law). It turned out that the best-growing startups are definitely more often people with education in social sciences than people with technical education. The data is shown in Figure 3.

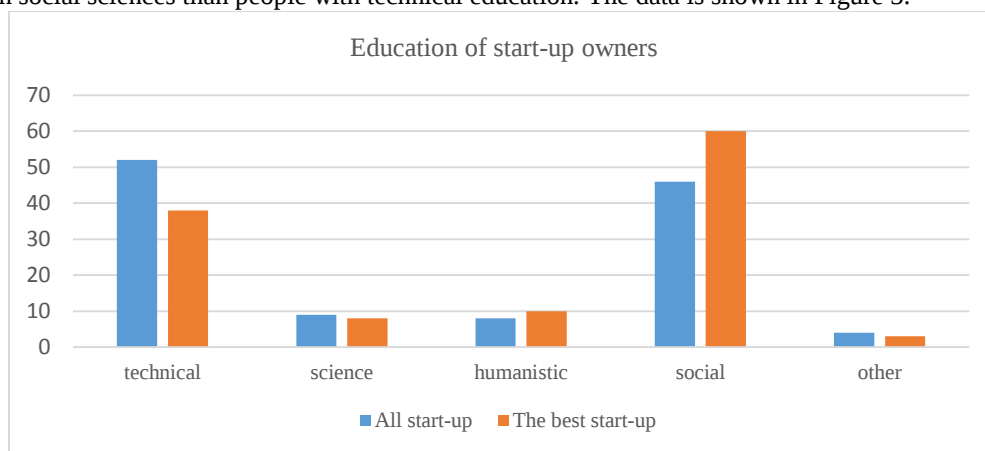


Figure 3: Education of start-up owners

Bootstrapping, that is, the financing of the startup's activity solely with own capital and $3 \times F$, that is friends, family & fools, in 2018 was the only source of financing for almost 60% of surveyed startups. Despite the growing activity of entities financing startups, the percentage of those who can count on such financing does not increase. If it were different, it would mean that either startups are of higher quality and more suitable for investing, or investors are lowering their investment criteria. On the other hand, neither does happen, startups in Poland still represent a similar level of investment risk, and investors do not necessarily get used to this risk. Therefore, the best startups attract capital from all sources, and these immature ones have difficulty in obtaining any. Figure 4 shows the sources of financing used by Polish startups in Poland and their % share, assuming that startups use several different sources.

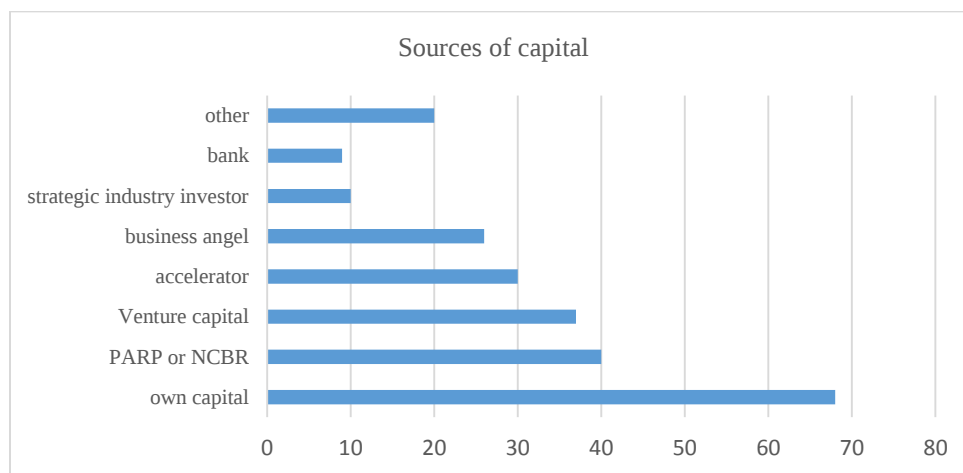


Figure 4: Sources of capital

The needs of startups in further stages of development differ significantly from the needs of debutants. At the expansion stage, startups first of all need qualified personnel, while exporters also need money. The individual mentoring and industry meetings have a moderate impact. Investing time in these two areas is paid back. Thanks to them, experienced startup managers supplement their specialist knowledge using the experience and knowledge of

mentors and increase the chances of reaching future employees or meeting someone who can recommend them. Figure 5 presents the most needed resources indicated by the startups at the current stage of enterprise development.

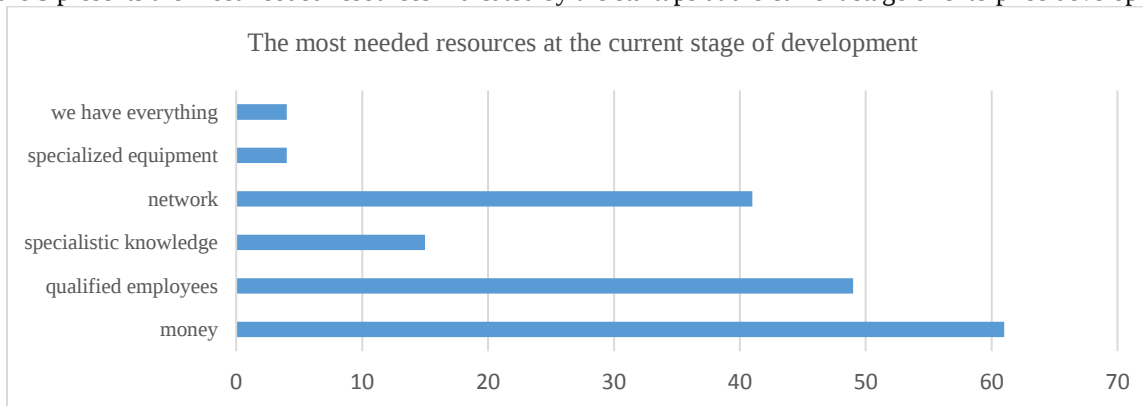


Figure 5: The most needed resources at the current stage of development

4. CHALLENGES OF POLISH STARTUPS

Previous research shows that new ventures are at high risk of failure and indicate the existence of many different barriers and limitations related to the start-up and continuation of operations²²³. There are some common challenges encountered by most startups, which also affect startups operating in Poland to a different extent. The main ones are: Financial challenges

Start-up enterprises are characterized by a lack of or very limited history, inter alia, about operations taking place in the organization as well as financing, they also generate small incomes or even operating losses²²⁴. At the first stage, enterprises depend on the owner's equity and family, friends or colleagues²²⁵. This choice is dictated by difficulties in obtaining external financing due to unclear prospects for the future and difficulties in signaling creditworthiness. Many of these enterprises are failing, and the biggest obstacle the companies are facing at this stage is the capital requirement that converts the business concept into a successful commercial venture²²⁶.

Human resources

Startups are usually created by one or several founders. As time passes and the venture develops, the founder needs experts to develop a prototype of his product or service. Then he must create a team and hire employees. The deficit of qualified employees becomes an increasingly important barrier. What is worse, the most innovative startups, which develop machine learning technologies, neural networks, artificial intelligence and blockchain, are usually struggling with the lack of qualified personnel. The creators of a startup may have insufficient knowledge about a given field, so further development of the company may be at risk²²⁷.

Support mechanisms

There are many support mechanisms for emerging startups that play an important role. They offer startup founders the necessary resources needed to develop their activities, such as assistance in obtaining funds, mentoring knowledge, know-how or necessary contacts in the environment, in exchange for shares. These support mechanisms are offered, among others, by venture capital funds, business angels, business incubators, science and technology parks, and accelerators. Lack of access to such support increases the risk of failure.

Environmental elements

²²³ Shepherd, D.A. Douglas, E.J. Shanley, M. *New venture survival: Ignorance, external shocks, and risk reduction strategies*. *Journal of Business Venturing*, (2000), 15(5), pp. 393-410

²²⁴ Łuczak, K. *Rachunkowość innowacji na przykładzie przedsiębiorstw określanych mianem start-up*. *Zeszyty Naukowe Uniwersytetu Szczecińskiego*, (2014), nr 830 (70), str. 79-87

²²⁵ Kotha, R. Gorge, G. *Friends, family, or fools: entrepreneur experience and its implications for equity distribution and resource mobilization*. *Journal of Business Venturing*, (2012), vol. 27, no. 5, pp. 525-543

²²⁶ Damodaran, A. *Valuing Young, Start-Up and Growth Companies: Estimation Issues and Valuation Challenges*. (2009), <http://people.stern.nyu.edu/adamodar/pdfiles/papers/younggrowth.pdf>

²²⁷ Beauchamp, M. Krysztofiak-Szopa, J. Skala, A. *Polskie startupy. Raport 2018*, Fundacja Startup Poland, Warszawa (2018), s. 8

Last but equally important is the effect of environmental elements. Sustainable development between a startup and its ecosystem related to financing, legal regulations, human and social capital as well as the institutional environment facilitates ensuring success for a startup²²⁸.

CONCLUSIONS

This article presents and explains the concept of a startup enterprise and presents the company's life cycle at an early stage of development. The life cycle includes three main stages: the pre-birth phase, the start phase and the market activity phase. In addition, the article presents, using descriptive statistics, data related to the acquisition of financing sources and the organizational structure of startups operating in Poland. Finally, the document considers four important challenges that startups can struggle with and that significantly affect their development and survival. Researchers can develop each of these stages of enterprise development and analyze the challenges facing each of these stages in different areas of the company. The aim of this research should be to develop a comprehensive theory of startups.

REFERENCES

- [1] R. Sobczak, H. Dudycz, Determinanty sukcesu i porażki start-upów internetowych, Wydawnictwo Uniwersytetu M. Curie-Skłodowskiej, vol. L,2, Lublin, pp. 82, 2016
- [2] Główny Urząd Statystyczny. Warunki powstania i działania oraz perspektywy rozwojowe polskich przedsiębiorstw powstałych w latach 2008–2012, Warszawa, pp. 33, <http://stat.gov.pl/obszary-tematyczne/podmioty-gospodarcze-wyniki-finansowe>, 2014.
- [3] N. Evers, The Process And Problems Of Business Start-Ups, The ITB Journal, vol. 4, issue 1, pp. 17-41, 2003.
- [4] E. Stawasz, Terytorialne aspekty kształtowania zdolności innowacyjnej małych i średnich przedsiębiorstw [w:] Zrozumieć terytorium. Idea i praktyka, red. A. Nowakowska, Wydawnictwo Uniwersytetu Łódzkiego, Łódź, pp. 201-215, 2013.
- [5] M. Niklewicz-Pijaczyńska, System wsparcia finansowego innowacyjnych start-upów, Przedsiębiorczość i zarządzanie, Wydawnictwo SAN, tom XVII, zeszyt 9, część I, pp. 225–23, 2016.
- [6] S. Blank, B. Dorf, Podręcznik startupu. Budowa wielkiej firmy krok po kroku, Wydawnictwo Helion, Gliwice, pp. 19, 2013.
- [7] N. Robehmed, What Is A Startup?, Forbes, [sites/natalierobehmed/2013/12/16/what-is-a-startup/#7c033d214c63](https://www.forbes.com/sites/natalierobehmed/2013/12/16/what-is-a-startup/#7c033d214c63), 2013.
- [8] E. Ries, Droga Startupu: metoda sukcesu, Wydawnictwo Helion, Gliwice, str. 28, 2018.
- A. Damodaran, Valuing Young, Start-Up and Growth Companies: Estimation Issues and Valuation Challenges, <http://people.stern.nyu.edu/adamodar/pdfiles/papers/younggrowth.pdf>, 2009.
- [9] M. Beauchamp, J. Kryštofiak-Szopa, A. Skala, Polskie startupy. Raport 2018, Fundacja Startup Poland,
- [10] Warszawa, pp. 31, 2018.
- [11] M. Matejun, Faza startowa jako strategiczny etap rozwoju przedsiębiorstwa [w:] Lachiewicz S., Matejun M. (red.), Zarządzanie rozwojem małych i średnich przedsiębiorstw, Oficyna a Wolters Kluwer business, Warszawa, pp. 61-84, 2011.
- A. Salamzad, K. Hiroko, H.K. Kesim, Startup Companies: Life Cycle and Challenges, 4th International Conference on Employment, Education and Entrepreneurship (EEE), Belgrade, Serbia, 2015.
- [12] D.A. Shepherd, E.J. Douglas, M. Shanley, New venture survival: Ignorance, external shocks, and risk reduction strategies, Journal of Business Venturing, 15(5), pp. 393-410, 2000.
- [13] K. Łuczak, Rachunkowość innowacji na przykładzie przedsiębiorstw określanych mianem start-up, Zeszyty Naukowe Uniwersytetu Szczecińskiego, nr 830 (70), pp. 79-87, 2014.
- [14] R. Kotha, G. Gorge, Friends, family, or fools: entrepreneur experience and its implications for equity distribution and resource mobilization, Journal of Business Venturing, vol. 27, no. 5, pp. 525–543, 2012.
- [15] Deloitte, Diagnoza ekosystemu startupów w Polsce, czerwiec 2016, https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl_Deloitte_raport_startupy.pdf, 2016.

²²⁸ Deloitte, Diagnoza ekosystemu startupów w Polsce, czerwiec 2016, https://www2.deloitte.com/content/dam/Deloitte/pl/Documents/Reports/pl_Deloitte_raport_startupy.pdf [dostęp: 12.04.2017]