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THE ROLE OF VENTURE CAPITAL FUNDS IN THE CONTEXT OF ATTRACTING INVESTMENTS IN ARMENIAN STARTUPS

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Venture capital funds, being a traditional way of attracting investments for startups, play a very important role in the development of startups and the startup ecosystem in general. The world's venture capital funds are more inclined to engage in high risk startups with high growth potential, paying particular attention to income growth and international scalability standards when making investment decisions. Although the amount of venture capital in European startups at a relatively early stage, particularly in the pre-seed and seed stages, is lower than that of business angels, there is a steady increase in venture capital investment in startups at those stages. Sustainable development is also observed in Armenia in the context of attracting investments in startups in the pre-seed and seed development stages through venture capital funds. Therefore, Armenian startups can hope to attract investments in venture capital funds operating not only in Armenia, but also in the world.

Keywords: venture capital, angel investor, startup ecosystem, crowdfunding, pre-seed and seed stages of development.

According to Steve Blank, a startup is a company, partnership, or temporary organization designed to look for a recurring large-scale business model. Startups are known as the primary centers of innovation with a high level of innovation, and are considered one of the most important sources of innovation. The term "startup" originated in the United States in the late 1970s, gained its popularity in the late 1990s as part of the creation of the Internet and the hype of the latter and technology, entered the business life in the 2000s. In addition, the term was coined by the venture capital sector to differentiate startups from small-scale, fast-growing companies, after which the term "startup" became associated with risk-financing and technological thinking [1]. Therefore, today, when using the term "startup", it is impossible to understand any newly established business organization, it must inspire with its idea such an opportunity that in the future it can develop very quickly and have a recurring and large-scale business model. So, even if we take the newly opened grocery store, which aims to operate exclusively to serve the neighborhoods around it, despite the fact that it is just being created, we cannot call such a business activity a startup. And if it offers a specific business model that can be replicated in many cities and/or countries and have the potential for rapid development around the world or even across the region, then such activity can already be called a startup. With the advent of the term "startup", followed a rapid increase in the number of startups, the main source of investment, and in some cases even the only

source, was venture capital. That is why today venture capital funds are talked about as a traditional method of attracting investments in startups, as venture capital has been the main, and in some cases even the only means of financing startups for many years. Today, investment attraction, such as angel investing, is growing rapidly as entrepreneurs, already well-established in the business sector, call themselves angel investors, invest in startups and, in addition to funding, share rich business experience, as they become, in a sense, mentors to the startups they fund. Especially in recent years, angel investors have been investing more and more in startups in the pre-seed and seed stages, according to the “Angels Market 2020: Return to the Pre-seed and Seed Startup Market for Angels” research conducted by The Venture Research Center at the University of New Hampshire. Both the increase in the total volume of angel investments and the increase in the total number of startups received by angel investors in 2020 and the years before that contributed to the fact that for the first time in a few years the market of startups in the pre-seed and seed stages became the predominant investment stage for angel investors [2, p. 1]. Another relatively new way for startups to invest is through crowdfunding, which consists of two words: "crowd" and "funding". It is easy to understand that such a financing measure implies investments by many individuals and/or groups (but almost always exclusively by individuals), each of which is usually small. But these individuals are given the opportunity to invest in startups and/or innovative ideas that, due to their large number, the funds raised become significant and greatly help startups and/or those with innovative ideas to realize their goals. Investments in crowdfunding are mainly made through the Internet on the websites of intermediary organizations specially created for that purpose for the relevant startup and/or innovative idea with the opening of financing opportunities on those websites.

As for attracting investments in startups through venture capital funds, the "Private Equity Investment Criteria: an Experimental conjoint analysis of venture capital, business angels, and family offices" article by Joern Block, Christian Fish, Silvio Vismara and Rene Andres conducted a study that reflected a number of interesting findings on the impact of venture capital funds on startups. The survey was conducted by looking at investors and investment professionals registered in Pitchbook, which is one of the most comprehensive business finance databases and regularly used for private equity investment research. As a result of the research, 15,600 investment specialists were found, who were sent to participate in the research. As a result, 749 investment experts answered among the invitees, who were the source of the final results of the research. As a result of the answers received, it became clear that 52.9% of 749 or 396 investment specialists are representatives of venture capital funds. This figure shows that the sample of investment professionals surveyed is representative, as according to the Pitchbook classification, which includes the above mentioned 15,600 investment professionals, 52.2% or 8,149 investment professionals are representatives of the venture capital fund which is very close to the number of venture capital fund representatives among the 749 investment

professionals surveyed (52.9% of respondents). Therefore, we can state that the results of this research best reflect the realities in the field. Of these realities, 60.7% of the investment professionals surveyed are from Europe, 24.6% from North America, 9.8% from Asia, 2% from South America, and 1.8% from Oceania and 0.98% from Africa. As for the indicators of venture capital funds, 52.9% of the respondents, being representatives of venture capital funds, represent the fact that the representatives of venture capital funds dominate in the investment sector by their number. The survey shows that venture capital funds are more inclined to invest in startups at a relatively early stage of development, in particular, 85% of respondents said that they invest in startups at a relatively early stage of development, while only 9% noted that they invest in startups in a relatively late in development. However, venture capital funds are less interested in investing in startups in the pre-seed and seed stages, which are the most preferred stages for business angels. Both business angels and venture capital funds are more inclined to form syndicates and joint ventures, as syndicates reduce the risk of investing, which is relatively higher for startups at a relatively early stage of development. The study considers 7 criteria that influence and predetermine or may influence and predetermine (depending on the type of investor) the decisions of different types of investors to invest in startups. These 7 criteria are:

- profitability, which shows how profitable the respective startup is, in which case the startups may be non profitable, break even and profitable,
- revenue growth, which shows the average annual revenue rate of the startup in the last few years, in which case the startup rates can be at the level of 10% annual revenue growth, 20%, 50% և 100% growth rates,
- track record management team, which shows the extent to which record management team is aware of developments in their respective industries (e.g., industry experience or leadership experience), in which case the startup performance may be none of them, some of them and all of them,
- current investors, which shows the types of investors, if any, and in which case the startup indicators may be no other existing current external investors – Unfamiliar and other current external investors – Tier 1,
- Business model, which shows the current business model of the startup for the relevant period and in which case the startup indicators can be lock-in, innovation-centred, low cost and complementary supply,
- value-added of product/service, which shows what added value the startup creates for its customers through its service and/or product and in which case the startup performance may be at low, medium and high levels;
- international scalability, which shows the startup's difficulties in expanding into international markets, which may require appropriate time and investment and, in which case the startup's performance may be at easy, moderate and difficult levels.

The attitude of investors towards the presented criteria is reflected in full in the chart below:

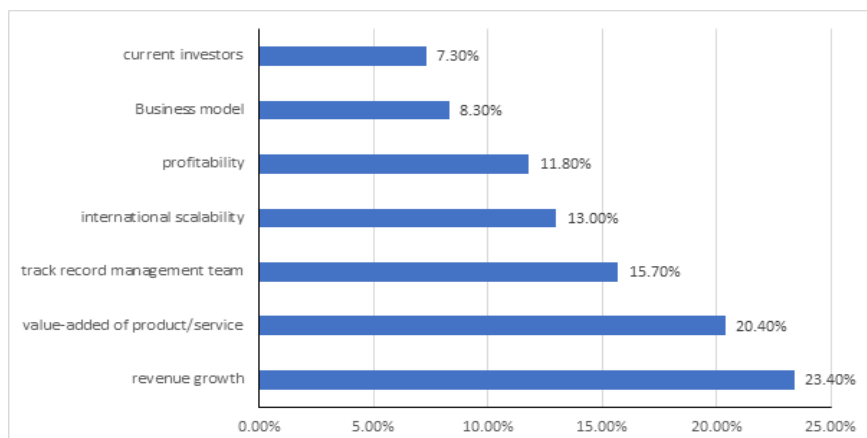


Chart 1. The degree to which investors see the impact of investment criteria

In particular, the research shows that the representatives of the venture capital fund give less importance to the criterion of profitability, more importance to the criterion of revenue growth. This phenomenon is explained by the fact that venture capital investments are more inclined to be involved in startups with a high level of risk and high growth potential. In addition, venture capitalists are more likely to invest in startups that have a relatively higher potential for international scalability. This phenomenon also corresponds to the tendency of attracting venture capital investments, which take place, taking into account the above-mentioned goals of the venture capital fund representatives, that is, to invest in startups that have a high level of risk and high growth potential. The point is, venture capital firms need their partners, with whom they can invest, manage those funds, repay those funds, and generate potential returns in a relatively short period of time, which pushes them to invest in relatively more risky markets and startups. This explains the tendency of venture capitalists to focus on the short term when making decisions, as partners who trust venture capitalists expect their funds to return quickly in the shortest possible time, which is relatively more difficult when investing in already profitable startups. Risky startups are more likely to generate relatively higher returns. The high rate of return on earned income also determines the reputation of venture capital fund representatives, which can have a positive or negative impact on those fund representatives' ability to attract new partners in the future. Therefore, the representatives of venture capital funds, who have not been able to create high rates of return on income in the short term, will have problems in attracting new partners in the future. In addition to providing high returns, venture capital firms are also interested in performing better than their peers, which again implies a relatively fast and short-term mindset among them. Therefore, startups that already have a high, stable level of profitability are not interesting for them, because it is more difficult to ensure a high return on income there compared to their peers, and to become known in the market. The survey also shows that representatives of venture capital funds are more interested in investing in existing startups with the level of other

current external investors -Tier 1 of current investors the criterion. The presence of reputable investors in startup investments increases the confidence of the representatives of venture capital funds in these startups. They are more inclined to invest in such startups, which increases the possibility of expected return on future income. In addition, the study concludes that venture capital firms are more inclined to invest in startups that are at the level of innovation-centred of business model criterion, which is why innovation-centred startups are more likely to grow exponentially to ensure high income returns in the future [3, p. 13].

Another statistical study conducted by the European Business Angels Network is called the "European Early Stage Market Statistics 2019" statistics compendium, which includes statistics collected from the European Business Angels Networks, the Business Angels Network Federations, individual business angels and 35 other sources, such as Dealroom, Crunchbase, Pitchbook, European Commission, National Venture Capital Associations, and regional angel investment researches. This statistics compendium contains data on investments made in Europe in 2019. The statistics in this compendium do not provide a complete picture of investments in Europe, as they do not cover all European countries, but they do give a good picture of investments in Europe, as they include statistics collected from 38 European countries. In addition, as a significant part of the investment market is not visible because it is informal, it is not registered in a publicly accessible place, to get a complete picture of the investment, the compendium adds an "invisible market" with a special methodology based on a study conducted by the European Commission in 2012. According to the compendium, the total volume of investments in Europe in 2019 amounted to 13.22 billion euros, including investments of venture capital, business angels and crowdfunding. It is noteworthy that this figure is higher than last year, 12.3 billion euros in 2018. The distribution of these 3 types of investors in 2019 is presented in the chart below.

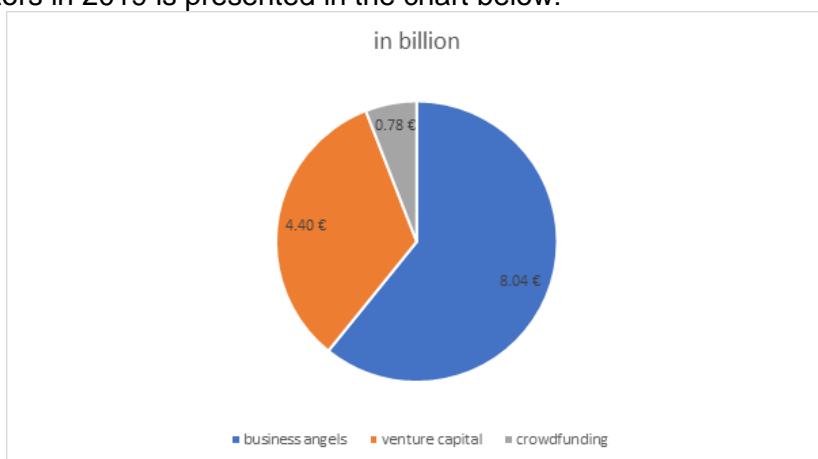


Chart 2. The volume of investments in European startups at early stage by type of investors in 2019

These data show that although business angels have a dominant position in investing in startups at a relatively early stage of development (almost twice as much as venture capital), the volume of venture capital investments is quite impressive in European startups at a relatively early stage of development, reaching to 4.40 billion euros or 33.29% of total investments [4, p. 6].

Granatus Ventures is the first venture capital fund in Armenia, which provides investments, experience, networking to startups around the world that use Armenia's potential as a developing technology hub. Granatus is involved in the early stages of product development and organization development, which helps to effectively accelerate the development of startups. Granatus' portfolio includes SuperAnnotate, Grovf, XCloud Networks, 2Hz, IntelinAir, Bazillion Beings, Collectly, Menu Group, Benivo (formerly Flat Club), GG, Skycryptor, Codesignal, SoloLearn and Viciniti [5]. Granatus' main partners are a number of Armenian companies specializing in artificial intelligence, such as DEVELANDOO, Enterprise Incubator Foundation, Government of Armenia, Microsoft Innovation Center Armenia, TUMO Creative Technology Center, Sevan Startup Summit, the World Bank, etc.

The other significant venture capital fund in Armenia is HIVEVentures. It invests in early-stage startups run by Armenians living around the world. Its portfolio includes ServiceTitan, 2Hz, Abaka, Armacad, Krisp, EventGeek, Shopmonkey, IntelinAir, Collectly, Hoodline, Codesignal and other startups [6].

SmartGateVC is the next venture capital fund in Armenia, created with the support of Tim Draper, with the aim of investing venture capital in deep technology startups. Its portfolio includes Dzook, Dowork.ai, Embry, ForgeFiction, Pinsight, Amaros, Expper Technologies: Robin, Grovf, Netris, AimHub, Zerobroker, Activelooop (formerly Snark AI), Podcastle, Britive, SuperAnnotate, Krisp, and other startups [7].

As a result, we can state that due to the developments in the venture capital market, especially the attraction of investments in the form of venture capital, venture capital funds play an important role for startups at a relatively earlier stage of development. In addition, developments in Armenia show that both venture capital funds for Armenian startups in Armenia and venture capital funds abroad play a very important role in the development of the Armenian startup ecosystem, and Armenian startups need to use their venture capital to make the relatively earlier stage of development a sustainable development stage.

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**ՎԵՆՉՈՒՐԱՅԻՆ ԿԱՊԻՏԱԼԻ ՖՈՆԴԵՐԻ ԴԵՐԸ ՀԱՅԿԱԿԱՆ
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Հայաստանի Հանրապետության պետական կառավարման ակադեմիա

Վենչուրային կապիտալի ֆոնդերը, հանդիսանալով սթարթափների համար ներդրումների ներգրավման՝ արդեն ավանդական դարձած միջոց, շատ կարևոր տեղ են գրավում սթարթափների և առհասարակ սթարթափ էկոհամակարգի զարգացման հարցում: Աշխարհի վենչուրային կապիտալի ֆոնդերն ավելի հակված են ներգրավվելու ռիսկայնության բարձր մակարդակ և զարգացման բարձր աճի հնարավորություն ունեցող սթարթափներում՝ ներդրումներ կատարելու որոշումներ կատարելիս առանձնակի ուշադրություն դարձնելով եկամտի աճի և միջազգային ընդլայնվածության չափանիշներին: Չնայած նրան, որ համեմատաբար ավելի վաղ փուլում, մասնավորապես՝ նախասաղմնային և սաղմնային փուլերում գտնվող եվրոպական սթարթափներում վենչուրային կապիտալի ծավալը զիջում է բիզնես հրեշտակների ներդրումներին, բայց նկատվում է վենչուրային կապիտալի միջոցով ներդրումների ներգրավման կայուն աճ այդ փուլերում գտնվող սթարթափներում: Հայաստանում նույնպես նկատվում է կայուն զարգացում վենչուրային կապիտալի ֆոնդերի միջոցով զարգացման նախասաղմնային և սաղմնային փուլերում գտնվող սթարթափներում ներդրումների ներգրավման համատեքստում: Ուստի, հայկական սթարթափները կարող են հույս ունենալ ոչ միայն Հայաստանում, այլ նաև աշխարհում գործող վենչուրային կապիտալի ֆոնդերի վրա ներդրումներ ներգրավելու համար:

Բանալի բառեր. վենչուրային կապիտալ, բիզնես հրեշտակ, սթարթափ, էկոհամակարգ, քրաուդֆանդինգ, զարգացման նախասաղմնային և սաղմնային փուլեր:

РОЛЬ ФОНДОВ ВЕНЧУРНОГО КАПИТАЛА В КОНТЕКСТЕ ПРИВЛЕЧЕНИЯ ИНВЕСТИЦИЙ В АРМЯНСКИЕ СТАРТАПЫ ВАГЕ ТУМАНЯН

Академия государственного управления Республики Армения

Венчурные фонды, являясь традиционным способом привлечения инвестиций для стартапов, играют очень важную роль в развитии стартапов и стартап-экосистемы в целом. Мировые фонды венчурного капитала более склонны инвестировать в рискованные стартапы с высоким потенциалом роста, уделяя особое внимание стандартам роста доходов и международной экспансии при принятии инвестиционных решений. Хотя в европейских стартапах на относительно ранней стадии, особенно на пре-эмбриональной и эмбриональной стадиях, объем венчурного капитала ниже, чем у бизнес-ангелов, но наблюдается устойчивый рост привлечения инвестиций через венчурный капитал в стартапы, находящиеся на этих этапах. Устойчивое развитие также наблюдается в Армении в контексте привлечения инвестиций в стартапы на пре-эмбриональной и эмбриональной стадиях развития посредством фондов венчурного капитала. Поэтому армянские стартапы могут надеяться на привлечение инвестиций от венчурных фондов не только в Армении, но и в мире.

Ключевые слова: венчурный капитал, ангел-инвестор, стартап-экосистема, краудфандинг, преэмбриональная и эмбриональная стадия развития.

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