DEVELOPMENT FEATURES, FINANCING METHODS AND INVESTMENT ATTRACTIVENESS EVALUATION OF START-UPS IN RUSSIA

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Abstract

Based on the analysis of the secondary data and the results of the authors' research on innovative activities in Russia, the goal of the paper is to discuss the theoretical basis of financing and evaluation of start-up projects and to analyse existing models of realization and evaluation of start-ups in Russia. The paper is devoted to actual problems of life in start-ups and methods of evaluation of investment attractiveness of start-ups. The paper supports the assumption that the best form of innovative activities is becoming a start-up and that start-ups in various areas of the economy appear as an important factor in the process of innovative modernization of the Russian economy. The paper identifies and analyses the main problems of development and financing of start-ups in Russia. The results of the paper show that successful realization of start-up projects requires suitable conditions for the development of promising innovations, including the attraction of necessary investments and the reduction of possible risks.

Key words: start-up, investments, innovative companies

JEL Code: G11, O3

Introduction

The term "start-up" was first used in the United States in 1939, when there were established many new companies in the Santa Clara Valley (California) that were engaged in the development of high-tech technologies. Every year, around the world, including Russia, there start many innovative companies with original ideas and big ambitions, especially in the business of information technologies. At present, in the United States, depending on the method of calculation, from 3 to 13% of the total value added is generated by the Internet economy (OECD, 2012).

In the modern world, the nature of the capital of companies operating in the market is changing. In the "intellectual company", the tangible assets are progressively replaced by intangible assets (Boyko, Sekerin & Šafránková, 2014). From the macroeconomic perspective, the investments in start-ups have a strong multiplier effect. The problem is that there are no clear methods of evaluation of investment attractiveness of start-ups, although these methods need both investors and businessmen (Gulati, R., DeSantola, A., & Howard, R., 2016). Start-ups should be based on a brilliant idea or a specific innovation and should have competent leaders (Lee & Lee, 2015). Start-ups that offer new products or services should be pioneers in their fields or they should find a way to significantly improve the existing status quo (Saberwal, 2016). In Russia, 90 percent of start-ups fail. The successful realization of start-up projects requires systematic creation of suitable conditions for the development of promising innovations (Colombo & Dawid, 2016), including the attraction of necessary investments and the reduction of possible risks.

Statistics show that in 2007-2012 the Russian venture capital market showed at least a four-fold increase, both in terms of the volume of investments as well as in terms of the number of transactions. The record volume of the market in 2012 brought Russia into the second place in Europe and the fifth place in the world (the total investments in 2012 reached almost $1.5 billion). At the end of 2014, the volume of the venture capital market was $480.9 million, of which $102.9 million was realized in the start-up phase (MoneyTreeTM, 2015).

The problem is that the Russian economy is currently experiencing a crisis. There is a general lack of financial resources, which negatively affects the activities of start-ups. The crucial question is how to ensure the financing of start-up projects, especially in their early stages. In addition, in theory and practice, there is no method of evaluation of investment attractiveness of start-ups, which would be universal and allow precisely estimate the value. All existing methods based on experiences of investors or analysts are quite subjective and do not provide a true picture of real cash flows. The main methods of value estimation of start-ups are explained in the article by Damodaran (2009) as well as in the articles by Payne (2016) or Berkus (2016).

1   Goals and methods

The goal of the paper is to analyse the innovative entrepreneurship in small and medium-sized businesses as a mechanism of diversification of the national economy, focusing on the problems of financing of innovative activities, the government regulation of innovative activities and the

management of the development of innovative businesses. Achieving the goal of the paper is based on the analysis of the secondary data and the results of the authors' research.

The importance of this work is given by the need to develop a mechanism of formation of a diversified economy based on activation of innovative activities of all its subjects, especially small and medium-sized businesses. In favour of the effectiveness of innovative activities of small and medium-sized businesses speaks the following data: small and medium-sized businesses introduce seventeen times more innovations for a dollar of costs than large businesses that develop only 10% of new technologies. The remaining 90% is developed by small businesses and independent inventors. At the same time, according to the Russian Federal State Statistics Service (Rosstat, 2015), the proportion of organizations that deal with technological innovations is only 9.1%, which is very low in comparison with developed countries. For example, in Germany the proportion of such organizations exceeds 60%. According to the directors of Russian companies, the main problems that limit innovation activities of small and medium-sized businesses are: legal protection of intellectual activities (36.2%), low level of development of innovative infrastructure in Russia (30.3%), uncertain economic prospects of introduction of innovations (22.0%), lack of information about innovative technologies (19.7%), or poorly developed business partnerships (14.7%).

The authors' research on Russian innovative infrastructure, based on methods of scientific modelling, analysis of economic and statistical indicators, comparative analyses and expert appraisals, showed that a large proportion of business incubators (49%) operate under the regional administration – 28% operate under the university administration and 21% operate under the municipal administration; only 5% of business incubators operate under the private entities. About 50% of residents operate in the field of information technologies and 22% in the field of high technologies such as nanotechnologies, biotechnologies, laser technologies, etc. (Veselovsky et al., 2016a). The analysis of the operation of business incubators showed that the main problems that limit the development of business incubators are: the weakness of the mechanism of the government regulation of their activities, the problem of financing of innovative activities with regard to their effectiveness, or the dispersion of strategic goals of innovative activities (Veselovsky et al., 2016b).

2   Results and discussion

The results of the authors' research are summarized and discussed in three parts, focusing on 1) the development of start-ups in Russia, 2) the problems of financing of start-ups in Russia, and 3) the methods of evaluation of investment attractiveness of start-ups.

2.1   The development of start-ups in Russia

Every year, around the world, including Russia, there start many innovative companies with original ideas and big ambitions – start-ups. The basis of a start-up is an idea that can bring a profit, qualified people who can realize the idea and financial means that can be invested in the realization of the idea, although it is not yet profitable.

According to the data of the Russian Startup Rating (RSR, 2014), in December 2014, the most promising Russian start-ups included projects in such areas as information technology, high-tech industry, biotechnology, medicine or ecology. This reflects the growing importance of start-ups in the innovative development of the Russian economy. The main problem of financing start-up projects is the initial lack of financial means for the development of basic infrastructure and the performance of regular activities (Gunko, 2015). This problem is usually related to the fact that the project team does not have enough knowledge, skills and abilities necessary to realize the project, which often leads to the failure of the start-up. Therefore, it is necessary at the outset to carefully select good people and correctly understand the specifics of the industry, although it may mean a certain loss of time, as a critical success factor.

2.2   The problems of financing of start-ups in Russia

The interest of investors in rapidly developing companies is growing, which is reflected in the growth of their investments worth billions of dollars. Tab. 1 shows the available sources of financing of Russian start-ups and their differences in comparison with western countries.

Tab. 1: Sources of financing of start-ups

Source	Comparative characteristics
Personal investments	In western countries, there are used financial means from other business activities or family savings. In Russia, this practice is very rare.
Investments of family members or friends	There are differences between Russia and western countries

Crowdfunding	In western countries (especially in the United States), the practice of funding a project by raising money from a large number of people is very popular. In Russia, this practice is rare.
Loans	In western countries, there are special loans on the development of start-ups. In Russia, there are used either consumer loans or loans for small businesses.
Angel investors	In western countries, the practice of individual investors in start-ups has been working for decades. In Russia, this practice is developing and angel investors are usually entrepreneurs or owners of large companies.
State funds	In western countries, it is usually only grants that are allocated to winners of competitions of start-ups. In Russia, there is a special state program on investing in start-ups.
Venture capital funds	In western countries, the practice of investment funds that manage money from investors investing in start-ups is quite common. In Russia, this practice is still rare.

Source: authors

At present, the venture capital is one of the main sources of financing of innovative projects, although investment activity decreased in the first half of 2015. The analysis of the number and structure of investors showed the growing importance of angel investors and accelerators, on the one hand, and the decrease in the activity of public investors, on the other hand (fig. 1).
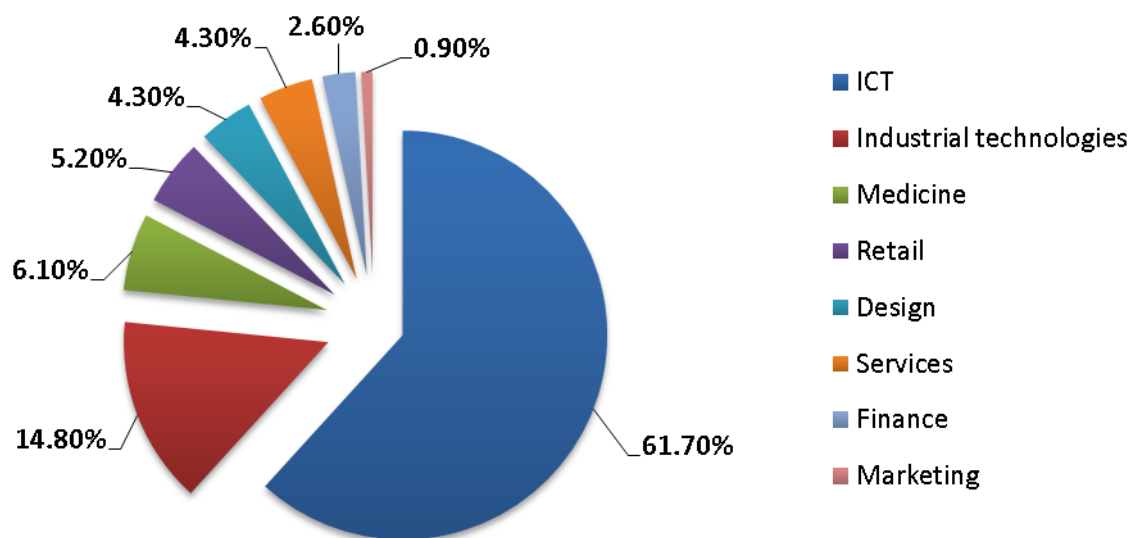
Fig. 1: Structure of investors by the number of transactions
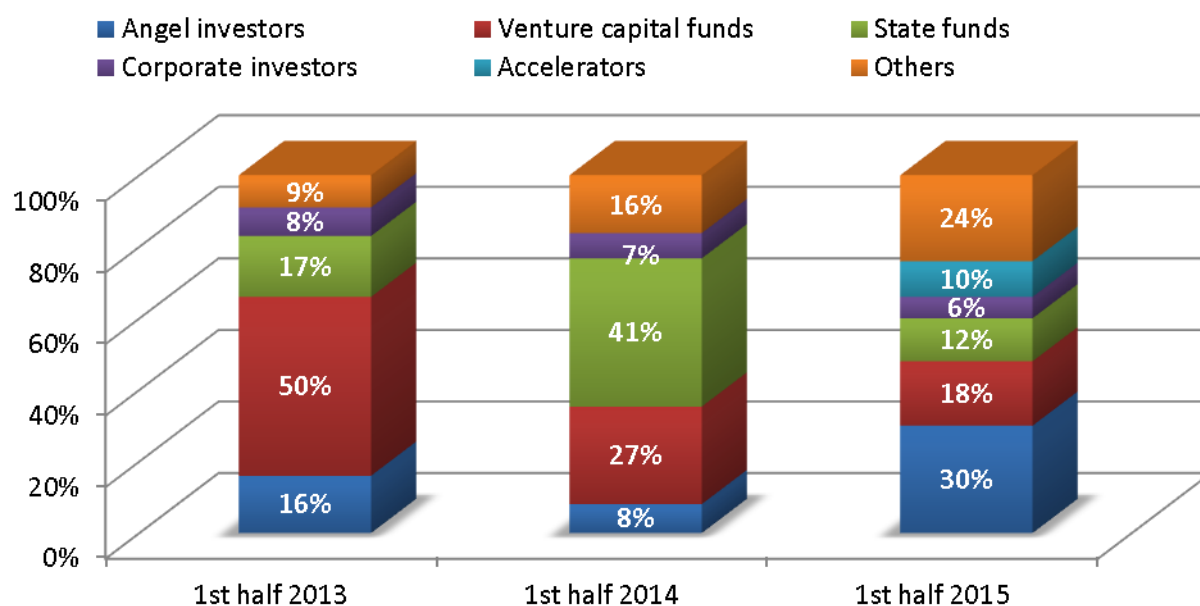
Source: Json.tv (2016)

The analysis of the financed projects by industries showed the dominance of projects in the field of information and communication technologies (fig. 2).

Fig. 2: Sectoral structure of transactions in quantitative terms in the first half of 2015

Source: Json.tv (2016)

At present, the online marketplace "AngelList" is one of the world's largest platforms for attracting investors in start-ups. There are more than 200,000 companies and 21,000 investors, of which two thirds are angel investors. In three years of existence of this site, more than 1,000 start-ups received more than $200 million for their projects. This is a good chance for Russian start-ups to find interested investors. Another successful internet project in attracting individual investors is a crowdfunding platform "KickStarter". In addition, there are different social networks that become an effective marketing channel for communication among the founders of start-ups, investors and consumers.

2.3   The methods of evaluation of investment attractiveness of start-ups

It can be said that the Internet today is a common part of the business. It allows companies to develop new business models and it leads to the development of the so-called "Internet economy". More and more companies are involved in the internet business in order to achieve greater success in the global market. In this context, the investments in start-ups involved in the Internet business appear worthwhile because rapidly growing companies on new markets are economically very attractive. Especially in Russia, the development of start-ups involved in the Internet business is very rapid. Their investment attractiveness is evaluated by mathematical

tools. The main indicator is the rate of return, which is the ratio of the annual income from an investment to the original investment. In order to determine the rate of return, it is necessary to determine the economic results of a start-up. The classic version of value estimation is based on three approaches: income approach, cost approach, and comparative approach. In the case of start-ups, these approaches are used rarely, for the following reasons:

- Start-ups have no history. In other words, they have no economic results that would enable financial analysis. It means that the income and cost approaches are ineffective.
- Start-ups tend to be unique. In other words, they are often based on original ideas and grow in specific conditions. Therefore, it is difficult to find similar start-ups and use the comparative approach.

From this perspective, the value estimation of start-ups is quite difficult. The alternative methods of value estimation of start-ups are: venture capital method, discounted cash flow method, and relative method.

The venture capital method is used by venture capital funds to evaluate the effectiveness of investments in start-ups. It is based on the calculation of the terminal value of the company for the investor (Habrahabr.ru, 2012).

The discounted cash flow method is based on the cash flows generated by the company during a certain period. Since start-ups have no financial history, the cash flows can be estimated only "from scratch". Damodaran (2009) proposes to carry out the calculation in two ways: "top-down" or "bottom-up". The "top-down" approach begins by defining the overall market to which the company wants to enter and then the market share that the company wants to take is calculated. The "bottom-up" approach begins by defining the anticipated performance of the company. The main disadvantage of this method is the difficulty of the calculation and estimation.

The relative method is based on comparing the evaluated start-up with similar existing companies, which were sold or bought. The problem of this method is the gathering of relevant data.

In addition to the methods described above, there are also other methods of value estimation of start-ups, but they are based on expert judgements rather than mathematical tools. For example, Bill Payne, a famous angel investor (Payne, 2016), invented a method called scoring or benchmarking method. This method is based on comparing the evaluated start-up with typical start-ups, in which angel investors invest their money. According to Bill Payne, the most important indicators of the future success and value of a start-up are the power of the project management and the size of the target market.

Dave Berkus, another famous angel investor (Berkus, 2016), also invented his own method of value estimation of start-ups. The Berkus method begins with a valuation of $0 and adds $500,000 for good idea, prototype, quality management team, strategic relationships and product rollout or sales.

For Russia, the most appropriate method seems to be the discounted cash flow method described by Aswath Damodaran. However, the evaluation of the investment attractiveness of a start-up project is based not on the calculation of its final cost, but on the cost of capital. It reflects the relative cost of internet business in Russia. The final criterion of the attractiveness is the internal rate of return (IRR). If the cost of capital is higher than the internal rate of return, the project is considered to be unprofitable and is rejected. This procedure uses two measures: the weighted average cost of capital (WACC) and the internal rate of return (IRR).

The acceleration of the development of start-ups as fundamental elements of the innovative system of the Russian economy requires the legal definition of the status of start-ups, as well as dealing with organizational, investment, information or marketing issues.

Conclusion

The development of innovative start-ups in various areas of the economy appears as an important factor in the process of innovative modernization of the Russian economy. The number of start-ups in Russia grows, but the problems are that many Russian start-up projects are analogous to successful foreign projects and that many Russian start-ups fail.

The successful realization of start-up projects requires systematic creation of suitable conditions for the development of promising innovations, including the attraction of necessary investments and the reduction of possible risks. It also includes the use of effective methods of evaluation of investment attractiveness of start-ups.

The proper evaluation of start-ups reduces the number of failed projects and increases the efficiency of investments. However, the critical success factor is the people, the members of the project team, who must have enough knowledge, skills and abilities necessary to realize the start-up project.

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