

MTSDT 2019

Modern Tools for Sustainable Development of Territories. Special Topic: Project Management in the Regions of Russia

VENTURE BUSINESS DEVELOPMENT IN THE INNOVATION SECTOR OF THE REGIONAL ECONOMY

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Abstract

The authors characterize the current state of the domestic venture business. The share of Russia in the global venture investment market is indicated. Particular attention is paid to the industry preferences of venture investors; the leading role of the information technology sector in comparison with the volume of venture investments in the biotechnological and industrial sectors is shown. An analysis of venture transactions with the participation of foreign startups is carried out. An assessment of the Russian venture market in the context of federal districts shows the relationship between the regional innovativeness and the level of development of the venture business. According to the authors, in the face of adverse effects of external and internal factors, it is necessary to implement a whole range of measures that will lead to sustainable growth of the venture business. Among these measures are the solution of a number of legal problems related to the creation of comprehensive protection of intellectual property in the venture capital sphere, the introduction of stimulating taxation for all participants in the venture capital business, the use of new methods of venture capital financing, the strengthening of regional innovation ecosystems, etc. The importance of choosing priorities in the venture capital business is emphasized. Startups focused on the real economy, people's needs and various business solutions based on the need for in-depth research will become increasingly promising.

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Keywords: Region, venture capital, venture capital infrastructure, venture capital projects.



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1. Introduction

For the implementation of an innovative model of economic growth, venture investment, which is an investment of money in an emerging business, is becoming increasingly important. In recent years, the annual growth of venture capital in the world is 20-30% (Schwab & Sala-i-Martin, 2017). In most developed countries, venture capital has long been a launching pad for small businesses (Breuer & Pinkwart, 2018; Lerner & Tåg, 2012; Lombardi, Trequattrini, & Russo, 2016; Ma, 2016; Haturu, 2016).

The history of Russian venture financing began in 1994, when the European Bank for Reconstruction and Development and donor countries (Germany, France, USA, Norway, Finland, Japan, Sweden, Italy) allocated \$ 517 million to create 11 regional venture funds in Russia. In March 1997, the Russian Venture Investment Association (RVIA) was founded, and about a year later, the Russian Venture Company (RVC) was created, with all funds existing by that time transferred to the latter.

In 2007, at the initiative of the President of Russian Federation, the Russian Corporation of Nanotechnologies was established; in 2011 it was reorganized into the OJSC "Rusnano". With the creation in 2010 of the Skolkovo science city, the formation of a common venture infrastructure framework was completed.

2. Problem Statement

In the light of the tasks set for the transition of the economy to an innovative model, it is necessary to intensify the work on creating small innovative enterprises. However, unlike developed countries, for a number of reasons, their quantity in Russia is extremely insufficient. Moreover, there is an alarming trend to reduce them. The introduction of sanctions against Russia actualized this problem. For this reason, more persistent work is needed to use innovative financing mechanisms that are well-tested in many countries of the world. One of such mechanisms is venture support of small innovative enterprises, the volume of which does not correspond to the scale of innovative reform of the national economy.

3. Research Questions

Despite the fact that the problem of venture support for small enterprises is constantly in the focus of attention at Russian forums organized by authorities and economic communities, many of the issues discussed are still not resolved. Among them are reducing the tax burden for all participants in the venture capital business, and, first of all, for venture capital funds and investors, introducing tax benefits for scientific research in the innovation sphere, improving the system of indirect support for venture capital investments and shifting it to earlier stages of the development of small innovative enterprises, changing priorities in the venture business in the direction of projects related to the real economy, etc. Without solving these issues, it is not possible to fully utilize the potential of venture capital as an effective mechanism for enhancing innovation.

4. Purpose of the Study

The purpose of the study is to increase the role of venture financing in enhancing the processes of innovation. In this regard, it seems important to analyze the Russian venture capital market, to study the features of its development by regions, to identify the reasons that hamper the further development of the

venture business in Russia and, on this basis, develop concrete measures to turn the venture mechanism into an effective stimulator of innovative activity.

5. Research Methods

The research is based on the synthesis of the scientific positions of international and Russian researchers and economists in the field of venture financing. The research methods used are inductive-deductive methods, methods of comparative analysis, abstraction and formalization and also such applied special methods of empirical knowledge as methods of scientific forecasting, analysis of economic and statistical indicators, comparative analysis and expert estimates. Authors' conclusions are based on the interpretation of research data conducted by reputable Russian and foreign scientists. Statistical analysis was carried out on the basis of RAVI and RVC data.

6. Findings

The measures taken in Russia have brought some results to the revitalization of the venture business (Bekkalieva, 2016; Volodin & Volkova, 2016; Ivanchenko, 2017; Trofimova, 2017). The number of venture funds operating in Russia at present has increased by 13.8% compared to 2013 and reached the number of 189 (Table 01). It could indicate that venture funds have become closer to potential projects, if not for one thing – the total capitalization of these funds (and, accordingly, their investment opportunities) has decreased by about 4.8% over the indicated period.

Table 01. Number and volume of venture capital funds

Indicators	2013	2014	2015	2016	2017	2018
Number of funds	166	175	181	174	182	189
Volume of funds, mln US dollars	4365	4358	3848	3794	3849	4173

Compilation by the authors based on materials of RVC and RAVI (JSC “Russian Venture Company”, n.d.; Ran Venture Investment Association, n.d.)

Nevertheless, according to analysts at the Dow Jones Venture Source and the Wall Street Journal, over the past 10 years, Russia's share in the global venture investment market has increased from 0.3% to 8.5%, which can be considered a worthy indicator for very specific conditions emerging in the Russian economy. The Russian venture capital market is steadily increasing transaction volumes (Table 02).

Table 02. Distribution of venture investments by sectors of the economy

Sectors	2016		2017		2018	
	Number of transactions	Amount of transactions, \$ mln.	Number of transactions	Amount of transactions, \$ mln.	Number of transactions	Amount of transactions, \$ mln.
Information technologies	110	149.6	126	205.3	140	420.0
Industrial technologies	21	6.1	30	23.7	16	7.1
Biotechnologies	26	9.5	11	14.7	7	13.4
Total	157	165.2	167	243.7	163	440.5

Compilation by the authors based on materials of RVC and RAVI (JSC “Russian Venture Company”, n.d.; RVIA, n.d.)

If we consider the industry preferences of venture investors, IT industry continues to be the undisputed leader in the venture capital market, which in 2018 accounted for 86% of the total number of transactions in the market and 95% of the total amount of all transactions (Table 03). Last year, 140 transactions were completed in this sector (an increase of 12.7% compared to 2016), and the amount of borrowed funds increased by more than 3.8 times. The average transaction amount for the period under review in this sector also increased significantly.

The volume of venture investments in the biotechnology sector has significantly decreased. The number of transactions in 2018 was 7 compared to 26 transactions in 2016. Accordingly, the volume of investment over this period decreased by 14.1% amounting to only \$ 13.4 million.

The same situation is observed in the industrial technology sector. The number of transactions decreased from 21 in 2016 to 16 in 2018. At the same time, investment volumes increased from \$ 6.1 to \$ 7.1 million.

A rather interesting situation is in the venture capital market with the participation of foreign startups. Compared with 2016, the number of transactions decreased by about 8.8%, while at the same time increasing by 33.8% of the total volume of venture financing (Table 03). But at the same time, unlike the Russian venture market, the sectoral structure of transactions is fundamentally changing. Industrial technology comes first with an overwhelming advantage. Significantly fewer foreign investors are interested in transactions in the field of biotechnology and to a much lesser extent in the field of information technology.

Table 03. Transactions of Russian funds with foreign startups, \$ mln

Sectors	2016 г.		2017 г.		2018 г.	
	Number of transactions	Amount of transactions, \$ mln	Number of transactions	Amount of transactions, \$ mln	Number of transactions	Amount of transactions, \$ mln
Information technologies	1	0.2	4	28.6	3	5.5
Industrial technologies	70	295.5	68	462.5	60	526.6
Biotechnologies	6	117.9	8	204.8	5	21.3
Total	77	413.6	80	695.8	68	553.4

Compilation by the authors based on materials of RVC and RAVI (JSC "Russian Venture Company", n. d.; RVIA, n. d.)

As the analysis shows, the regional venture capital investment market is developed very unevenly (Table 04). According to the results of 2018, approximately 72.4% of the volume of venture investments is concentrated in the Central Federal District, 17.2% - in the Privolzhsky Federal District, 7.4% - in the Siberian Federal District, 2.4% - in the North-Western Federal District and 0.6% - in the Ural Federal District. The venture capital market is practically not developing in the North Caucasus and Far Eastern Federal Districts.

Table 04. Volume of venture investments by federal districts, 2018

№	District	Volume of investments, \$ mln
1	Central	118
2	Privolzhsky	28
3	North-Western	4

4	Ural	1
5	Siberian	12
6	North Caucasus	0
7	Far Eastern	0

Compilation by the authors based on materials of RVC and RAVI (JSC “Russian Venture Company”, n. d.; RVIA, n. d.)

These data correlate with the rating of innovative regions of Russia by the Association of Innovative Regions of Russia (AIRR) based on the results of 2018 with a system of 29 indicators (Rating of innovative regions of Russia 2018, n.d.). The most innovative regions of Russia are St. Petersburg, the Republic of Tatarstan and the city of Moscow. The group of leaders also includes Tomsk Region (4th place), Moscow Region (5th place), Novosibirsk Region (6th place), Kaluga Region (7th place).

Six regions of the Russian Federation are frankly weak in innovation areas. Among them are the Chechen Republic and the Karachay-Cherkess Republic, at the end of this list are the Tyva Republic, the Nenets and Chukotka Autonomous Okrug (District).

Over the past period, certain trends have been outlined in the venture capital market. Firstly, the strong influence on the public sector continues to affect venture market. More than 25% of the venture capital market is accounted for by state-owned funds that made approximately 19% of venture investments in 2018. Secondly, there is a marked increase in the role of corporations in the venture capital market. It is confirmed by more than a twofold increase in investment of corporate funds in 2018 compared to 2014, as well as the fact that corporations are increasingly playing the role of LP venture capital funds (investors who invest their funds in funds). And finally, there is a continued dominance in the venture capital market of information and communication technologies, characterized by a shorter investment cycle. In the short term, one cannot expect a fundamental change in the situation. Russian investors are unlikely to risk investing in more resource-intensive and long-term return real technologies.

Assessing the overall situation in the venture industry, it can be stated that, despite active state support, many institutions for the development of the national venture system are still underdeveloped and are not able to fully satisfy the growing demands of the market in venture financing.

According to the authors, for the further activation of the venture business in the face of adverse effects of external and internal factors, a whole range of measures is required to enter the trend of sustainable growth of the venture business. First of all, it seems necessary to solve a number of legal problems related to the creation of comprehensive protection of intellectual property in the venture capital sphere. It is also necessary to implement measures to introduce incentive taxation for all participants in the venture capital business, bearing in mind, first of all, reduction of the tax burden for venture funds and investors. The latter should be granted special tax preferences. It is also advisable to introduce tax incentives for research and innovation.

In close connection is the work that needs to be done to improve the system of indirect support for venture capital investments. It is advisable to shift the priorities of such support to earlier stages of development of a small innovative enterprise. We can talk about the need for financial support for the venture business in the form of targeted grants and commercial loans at low interest rates.

Particular attention needs to be paid to new ways of venture financing. In particular, in recent years, such a method of financing small innovative projects as crowdfunding, which consists in collective

financing, based on the voluntary participation of all comers, is becoming increasingly popular abroad, which makes it, in essence, a form of “public funding” that allows collecting the necessary amount of money for implementing small innovative projects (Kolotyryn, 2015; Pierce-Wright, 2016).

Fundraising is carried out electronically through a special platform (the most popular crowdfunding platform in the world is Kickstarter.com). Unfortunately, crowdfunding opportunities are strongly underestimated in Russia. With a global crowdfunding market turnover of more than 10 billion US dollars a year, Russia accounts for only about 172 million. There is no doubt that there is a need to develop more effective mechanisms for state support of crowdfunding as a powerful financial instrument for the implementation of small innovative projects.

It is required to continue work on the further transformation of innovative and venture infrastructure into a full-fledged communication platform for training and exchange of experience of all participants in the venture market, which allows finding partners and stimulating cooperation relations necessary for small innovative enterprises.

Particular emphasis should be given to supporting regional innovation ecosystems. First of all, it is about strengthening existing and creating new regional technology parks, clusters, and special economic zones in which residents would have significant tax and customs benefits. In each region, it is necessary to create at least one venture capital fund to accelerate the process of selection and development of local projects, to organize more effective state support for the existing scientific infrastructure, including higher educational and scientific institutions, technology parks, science cities, research centers, academic towns, etc. The choice of priorities in the venture business is very important. Startups focused on the real economy, the needs of people and various business solutions based on the need for in-depth research will become more promising. Russia announced the official course for the digitalization of the economy. In this regard, a wide range of opportunities for digitalization of industries opens up for venture investors. First of all, in the sphere of industry, transport, medicine, the banking sector, urban management, retail and in other no less significant sectors of the economy. At the same time, the attractiveness of projects in the field of artificial intelligence (AI) and machine learning will rapidly increase.

The attention of venture investors should be attracted to projects in the field of genetic engineering, which allow creating highly productive animal breeds and high-yielding, resistant to diseases and pests, varieties of agricultural plants. Startups in the field of agricultural technology and aquaculture that solve the problem of obtaining environmentally friendly food regardless of climatic conditions will become extremely popular. Of particular relevance to these areas is the sharply aggravated problem of food shortages in many regions of the world.

The niche of foodtech will develop quite actively in Russia. It is important to emphasize here that investing in a food delivery service, due to a quick payback, can become attractive for foreign partners.

One can also predict a significant increase in the attention of venture investors to another, rapidly growing sector, online education. According to experts, the Russian EdTech market has great potential. This applies to different educational sectors, but, nevertheless, additional school education, additional professional education and language training will be highlighted in it.

7. Conclusion

Evidently, venture financing can become a truly effective mechanism for ensuring the innovative development of the national economy. An active state policy is needed to maximize the use of this mechanism so that the Russian venture market can overcome the existing lag in this area from developed countries in the very near future.

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