Asian Social Science; Vol. 11, No. 20; 2015
ISSN 1911-2017 E-ISSN 1911-2025
Published by Canadian Center of Science and Education

Risk Aspects of Creation of Investment E-platform as a Tool of Support for Small Innovative Enterprises

Yuliya N. Stepanova[1], Irina V. Sibiryatkina[1] & Valentina E. Sukhova[1]

[1] Voronezh State University of Forestry and Technologies (VSUFT) named after G. F. Morozov, Voronezh, Russia

Correspondence: Yuliya N. Stepanova, Voronezh State Academy of Forestry and Technologies (VSAFT) named after G. F. Morozov, Voronezh, Russia. Timiryazeva str., ap. 8, Voronezh, 394087, Russia. Tel: 74-73-253-7847. E-mail: vglta@vglta.vrn.ru

Received: March 30, 2015 Accepted: April 8, 2015 Online Published: July 15, 2015

doi:10.5539/ass.v11n20p127 URL: http://dx.doi.org/10.5539/ass.v11n20p127

Abstract

The article shows the results of research for the allocation of risk aspects of creation of investment E-platform for support for small innovative enterprises, which possess an important role under conditions of transition of Russia's economy to innovational path of development. Small innovative enterprises can become one of the key subjects of innovational activity, providing quick and effective development and commercialization of various innovations. However, under modern Russian conditions, small innovative enterprises do not fulfill that role fully. It is established that creation of investment E-platform will be a tool for active development of small innovative enterprises, using various approaches for stimulation of demand for innovations and investments into their development and use in modern innovative economy. On order to provide favorable conditions for creation and functioning of investment E-platform, it is necessary to study specific risk aspects. On the basis of identification of factors and reasons for risks emergence, it is necessary to determine the classifier of possible types of risks, depending on the stage of innovative process, which will allow formulating the portfolio of the most significant risk aspects of creation of investment E-platform, aimed at attracting the maximum number of investors.

Keywords: small innovative enterprises, investment E-platform, risks, risk aspects, risk portfolio, risk management

1. Introduction

The task of building innovative economy in Russia is one of the most important in the conception of long-term development of the country by 2020. New technologies and knowledge form real competitive advantages and become a decisive factor for economic growth. Transfer of technologies (process of transition of technologies from the sphere of development for practical use) is the fastest in small enterprises.

Small innovative enterprises (SIE) are a connecting link between science and production. In high-tech economies, small innovative enterprises comprise the most dynamic sector of innovative economy, which is capable to quickly react to the requirements of the market. Small enterprises often take the risk while developing new products and technologies and taking them to the market. Due to risk character of their activity, their list constantly changes: some companies disappear, and others emerge.

Despite the fact that Russia is not a leader of innovational development, its potential in this sphere exceeds the result characteristics manifold. Under such conditions, the involvement of our country in global innovative processes is an absolute requirement, as, otherwise, it will be impossible to reach the average global technological level and reach the indicators that are similar to those of the rivals.

According to the research data, share of small innovative enterprises in Germany constitutes 62%, in Norway – 49%, in France - 38%, in Great Britain – 23.7%. The highest indicator of innovative enterprises among the European countries belongs to Ireland - 75%.

National Science Foundations (USA) gives the following indicators. Among the science-intensive companies, the share of subjects of small business constitutesт 89%; at that, the share of small innovative enterprises among enterprises of the sphere of software development is 98%, 97% – in the sphere of photonics and optics, 96% – in

the sphere of science-intensive service, and 96% - in the sphere of conduct of qualifying operations. Small innovative enterprises comprise approx. 90% of the total number of companies of electronic industry of the USA.

As the number of Russian small innovative enterprises is far less than foreign analogs, it is a serious problem for the country as a whole and for regions. Thus, a lot of investors are not eager to invest their money, until they know what risks wait for them and what their profit will be (Morkovina, 2014).

Small business has the largest sensitivity for socio-economic situation, for any changes in external environment, which predetermines the necessity for its support – primarily, financial one.

In order to solve this problem using the foreign experience, investment E-platforms are created in the Russian federation; they fulfill the standard-building role for all elements of infrastructure of small innovative enterprises with involvement of financing into this sphere and support for development.

Investment E-platform (IEP) allows investors and innovative enterprises to effectively cooperate, increasing the accessibility of capital for small Russian companies.

IEP provides a single informational and technological infrastructure in the sphere of small innovative enterprises, which allows improving the informational penetration between authorities, subjects of small innovative business, and subjects of investment activity.

At that, it is necessary to allocate risk aspects which can hinder the creation, development, and effective functioning of IEP, as a tool of support for small innovative enterprises.

2. Technique

During the research, the following characteristics of the risks that influence the creation of IEP were viewed: economic nature, objectivity of manifestation, uncertainty of consequences, expected unfavorability of consequences, variability of the level, and subjectivity of assessment. Various classifications of risks were analyzed: as to type of danger, sphere of manifestation, possibility of forecast, sources of appearance, size of possible damage, complexity of research, financial consequences, character of manifestation in time and possibility for insurance aimed at the building the risk classifier for innovational projects of small enterprises.

During the research, the main stages of analysis of risk aspects, peculiar for the project of creation and functioning of IEP were determined:

- forming the enlarged risk universe;

- identification of risks, i.e., allocation the factors and reasons for their emergence;

- evaluation of risks using the qualitative and quantitative methods;

- analysis of probability of risk situation;

- building the profile of risks on the basis of evaluation of risk aspects of creation and forecast of efficiency of IEP functioning;

- choosing the strategy for risk aspects management.

During the research, at the stage of risk evaluation, the qualitative and quantitative methods were used.

Qualitative methods allowed determining the role and value of each specific risk as to key characteristics: value and level of danger. We used the analogues methods and expert method for risk assessment.

Quantitative methods were used for determining the specific size of financial damage from financial risks in totality:

- analysis of scenarios for modeling the situation in view of optimistic, pessimistic, or conservative forecast;

- Monte-Carlo methods for analysis of investment risk aspects, taking into account the higher possible amount of external environment factors.

As the main methods of risk management for creation of IEP, as a tool for support for small innovative enterprises, the following should be used: distribution of risks, diversification, limitation, insurance, hedging, avoiding risks, making decisions as to overcoming the risks.

3. Results

The research showed that in respect to EIP, the factors of risk aspects emergence are closely connected to the life cycle of innovative project of small enterprise. On the basis of the results of ranking scores, involving the experts, the risk rankings were determined.

It is determined that risks, related to EIP at the stages, are ranked in the following way:

Stage of formation:

– risk of non-receipt of funds, required for realization of the project;

– risk of insufficient level of staff assistance;

– deviation of design and development work parameters from the planned ones;

Stage of development:

– risk of insufficiency of involved investors;

– lack of result during the planned period;

– risks of wrong choice of innovational projects;

– risks of insufficiency of financing for the project;

– lower parameters of functioning as compared to the planned ones;

– risk of nonfulfillment of economic agreements.

Stage of functioning:

– risk of lack of funds for self-financing of the project;

– risk of non-fulfillment of investors' obligations;

– risk of appearance of new rivals in the market.

It may be stated that identification and assessment of risks allow forming the part of the risk aspects profile. For that, the formation of risks group was conducted, reflecting the specifics of the project, with establishing the priorities, and the probability of risk events emergence was evaluated.

Probability of risk event emergence was evaluated by the expert analysis method – expert evaluations of the specialists in this sphere. The research viewed any possible risks and level of their influence on the viewed project. The level of supposed risks and their list were formed according to individual knowledge of them.

A powerful analytical basis was used for filling in the table. In case of having all the necessary data, the analyst put in the table the specialists' opinion as to the analyzed sphere. The risk was determined in percent. The higher the percent, the higher the risk. Then, in order to determine the possible influence of risks on the work of small innovative enterprise (project realization), the financial indicators were discounted according to the given figures (Table 1).

Table 1. Final results of expert commentary as to probability of emergence of risk event of creation and functioning of IEP

Expected risk	Line of risk event								
	–60%	–40%	–20%	–10%	0%	10%	20%	40%	60%
Risk of non-receipt of funds, required for realization of the project	—	—	X	—	—	—	—	—	—
Risk of insufficient level of staff assistance	—	—	—	—	X	—	—	—	—
Risk of insufficiency of involved investors	—	—	—	—	—	—	—	X	—
Risk of lack of result during the planned period	—	—	—	—	—	X	—	—	—
Risk of wrong choice of innovational projects	—	—	—	—	X	—	—	—	—
Risk of insufficiency of financing for the project	—	—	—	X	—	—	—	—	—
Risk of absence of expected effects	—	—	—	—	—	—	X	—	—
Risk of lack of funds fort self-financing of the project	—	—	—	—	—	—	X	—	—
Risk of non-fulfillment of investors' obligations	—	—	—	—	—	X	—	—	—
Risk of appearance of new rivals in the market	—	—	—	—	—	X	—	—	—

According to the above mentioned, the following are the results of the analysis and the profile of risk aspects of creation and functioning of IEP (Table 2, Figure 1).

Table 2. Results of analysis of risk aspects of creation and functioning of IEP

Risk	Significance		Probability of manifestation	
Risks at the stage of organization				
Risk of non-receipt of funds, required for realization of the project	0.92308	high	–20%	low
Risk of insufficient level of staff assistance	0.84615	high	0%	low
Risks at the stage of development				
Lack of result during the planned period	0.84615	high	10%	medium
Lower parameters of functioning as compared to the planned ones	0.61538	medium	10%	medium
Risk of insufficiency of involved investors	0.92308	high	40%	high
Risk of wrong choice of innovational projects	0.76923	medium	0%	low
Risk of insufficiency of financing for the project	0.69231	medium	–10%	low
Risks at the stage of functioning				
Risk of absence of expected effects	0.92308	high	20%	high
Risk of lack of funds fort self-financing of the project	0.92308	high	20%	high
Risk of appearance of new rivals in the market	0.76923	medium	10%	medium
Risk of non-fulfillment of investors' obligations	0.84615	high	10%	medium

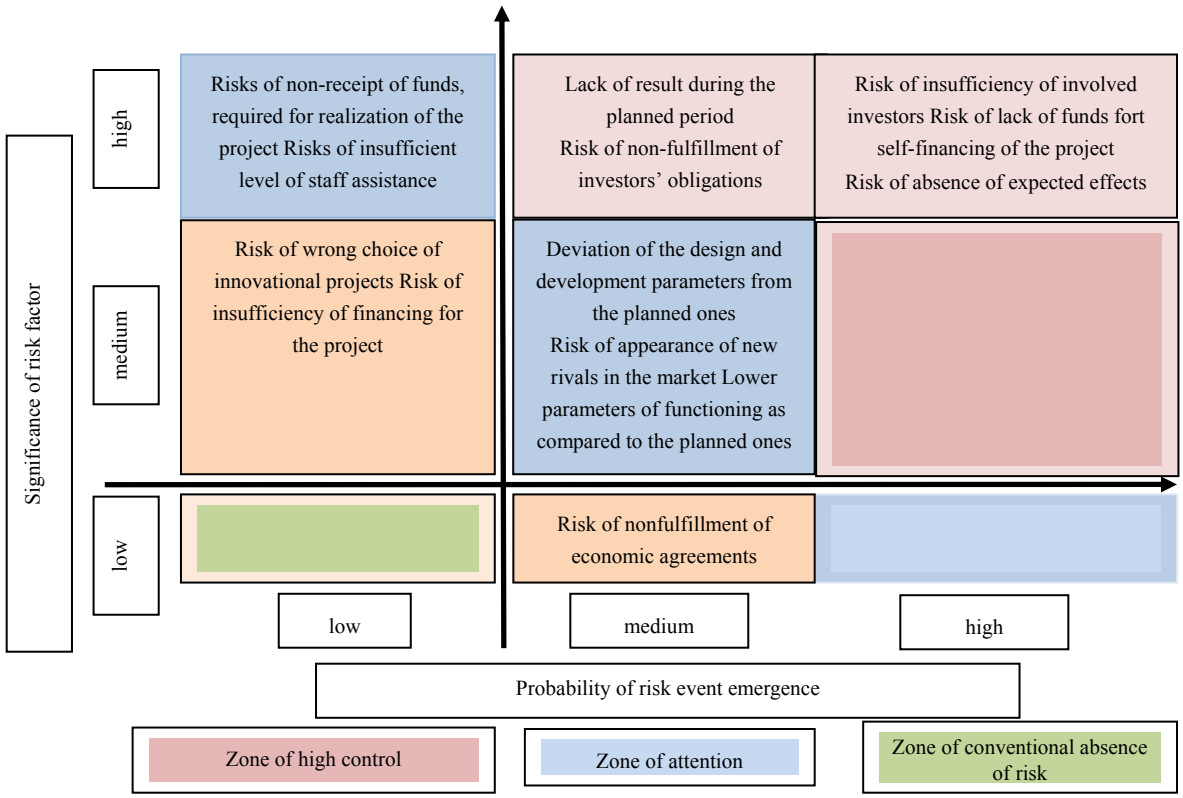

Figure 1. Profile of risk aspects of creation and functioning of IEP

As per the risk profile, three risk zones were determined:

- zone of conventional absence of risk; - zone of attention; - zone of high control.

The resulting profile of risk aspects reflects a variety of risks in the zone of high control, which leads to formation of effective strategy of their management. The practice of management admits the cases of avoiding risky innovative projects of small enterprises through their minimization: rejecting unreliable partners, risky projects, guarantors, etc.

4. Discussion

The process of creation and functioning of IEP, as a tool for support for small innovational companies, is, on the one hand, controlled, but, at the same time is characterized by the high level of uncertainty of dynamics of main factors, related to attraction of investors which determines its results and efficiency. In order to ensure favorable business climate for small enterprises, which start the innovations, it is advisable to calculate risks and chances, forecast difficulties, and try to minimize possible negative deviations. These tasks can be solved by creation of the system of risk management (Troyanskaya, 2014).

For the risk aspects, peculiar for creation of IEP for support for projects of small innovative enterprises, the preferable directions of minimization are determined in Table 3.

Table 3. Directions of minimization of risk aspects of IEP creation

Risk	Directions of minimization
Risks of wrong choice of innovational projects	Necessity for elaboration in the issue of evaluation of the role of short-term and long-term interests of enterprise's owners and of assessment of consumption market
Risk of non-receipt of funds, required for realization of innovative project	Elaboration of the project, package of the project, development of competent business plan
Risk of use of self-financing of the project	Involvement of external sources of project financing
Risks of current resources supply	Careful choice of supplier
Risk of insufficient level of staff assistance	Careful choice of specialists that share the company's values, long-term motivation due to improvement of the wages policy
Risk of insufficient segmentation of the market	Studying the market condition
Achievement of negative result	Necessity for elaboration in the issue of evaluation of the role of short-term and long-term interests of enterprise's owners, evaluation of consumption market, and choice of realization methods
Absence of results of implementation in the planned period	Tracking the periods of product development as to the checkpoints (monthly or more often).
	Tight control of expenses from the business founders. Elaborated development of technical task
Risks of use of external sources for financing	Careful choice of external sources of the project financing
Risk of use of combined method of financing the project	Elaboration of the mechanism of attraction of various sources for the project financing
Risk of appearance of new rivals in the market	Creating stable competitive advantages for our products. Advantage of early rollout. Forming market barriers for transition to the rivals' products
Risk of wrong choice of the strategy for new product sale	Organizing the network of sales and the system of promotion of novelties to consumer
Rejection by the market	Studying the market, monitoring the rivals, close cooperation with potential clients. Creating stable competitive advantages for products.
Lower volumes of sales as compared to the planned ones	Constant improvement of the line of products, its technological possibilities and design.
	Development of the system of reliable protection against unsanctioned copying.
	Preliminary agreements as to implementation of innovative products at the stage of development, elaboration of the life cycle model
Risk of increase in expenses for development of business	Tough control of expenses from business founders
Risk of later achievement of breakeven point	Tough control of expenses from business founders and managers

The conducted research showed that the stage of creation of IEP in the zone of high control includes the following risks:

– risks of insufficiency of involved investors;

– risk of insufficiency of funds for self-financing of the project;

– risk of absence of expected effects;

– absence of result during planned period;

– risk of nonfulfillment of investors' obligations.

All the above mentioned risks are advises to bring down to 2 aspects:

1. Threat of lack of investors for financing small innovative enterprises, which can have negative consequences for self-financing of IEP.

In this case, the nonfulfillment of investors' obligations might be one of the reasons of lack of investments. In order to prevent the emergence and growth of this threat, it is necessary to develop a complex marketing strategy for attraction of investors; conduct constant monitoring of the level of small innovative enterprises' provision by investments; realize the complex of stimulating measures for attracting investments into the platform for financing small business.

2. Risk of non-fulfillment of targeted landmarks – both in time and in view of effects.

These risks have organizational nature. That's why their evening-out will be ensured by the permanent control of the process of realization of this project. For the purpose of the highest efficiency of the process of formation and further functioning of IEP, it is advisable to develop the gradual plan of realization of the planned tasks; determining the "points" of control and performing the direct control.

The conducted research determined the risks of the attention zone:

–risk of non-receipt of funds, required for realization of the project;

–lower indicators of functioning as compared to the planned ones;

–risk of insufficient level of staff assistance;

–deviation of design and development parameters from the planned ones;

–risk of appearance of new rivals in the market.

5. Conclusion

It may be concluded that the creation of IEP, as a tool for support for small innovative enterprises and, primarily, the development of the strategy of management of risk aspects requires the special attention to the following positions.

One of the essential risks, emerging at the initial stage of IEP functioning, is the risk of wrong choice of innovative project. It increases proportionately with the growth of expenses, suffered by the enterprise at initial stages of innovation's life cycle; but by the moment when innovations is acknowledged in the market, the possibility for losses for this type of risk reduces to zero. One of the reasons for emergence of this risk is unfounded allocation of priorities of economic and market strategies of organization, which are capable to make a contribution into achievement of the organization's goals.

Next type of risk is the risk of not providing the small innovative enterprises with the sufficient level of financing. This risk includes; risk of non-receipt of funds, required for the development of innovative project; risk of use of self-financing; risk of use of external sources of financing; risk of use of combined method of project financing, i.e., the organization uses several sources simultaneously.

Marketing risks of the developed innovative projects of small enterprises include the following: risk of insufficient segmentation of the market; risk of wrong choice of targeted segment of the market, which is emerging when demand for a novelty in the chosen segment is unstable or demand for novelty in that segment is not formed yet; risk of wrong choice of the strategy of sale of novelty due to unsuccessful organization of the network of sale and the system of novelty promotion to consumer; risk of ineffective advertising of new products or products with improved characteristics.

References

Bezrukova, T. L., & Belskiyй, A. Y. (2014). Innovational approaches to lightening the conditions of development of small innovative enterprises in industry. *Lesotekhnicheskiy zhurnal © FSBEI HPE "VSAFT", 3*, 274-284.

Bezrukova, T. L., & Bezrukov, B. A. (2014). Classification of enterprises in the sphere of innovative development as to the level of capital accessibility. *Lesotekhnicheskiy zhurnal © FSBEI HPE "VSAFT", 4*, 174-176.

Bezrukova, T. L., & Shanin I. I. (2014). Ensuring investments into innovational activity of furniture-building enterprises. *Lesotekhnicheskiy zhurnal © FSBEI HPE "VSAFT", 1*, 188-196.

Korzhenevskaya, O. N. (2014). The Socio-Economic Role of Entrepreneurial Universities in Development of Innovation-Driven Clusters: The Russian Case. *Asian Social Science, 10*(23), 113-122. http://dx.doi.org/10.5539/ass.v10n23p113

Morkovina, S. S., Popkova, E. G., Santalova, M. S., & Konstantinov, A. V. (2014). Mechanisms of Support of Export-oriented Small Enterprises: The Regional Aspect. *Asian Social Science, 10*(23), 95-101.

Morozova, I. A., & Litvinova, T. N. (2014). The Need of the Uniform Information Platform "Innovations of Russia" Formation. *Asian Social Science, 10*(23), 78-84. http://dx.doi.org/10.5539/ass.v10n23p78

Popkov, E. G., Romanov, M. K., & Akopova, E. S. (2012). Development of SME within the Regional Cluster. *Advances in Management and Applied Economics, 2*(4), 209-221.

Popkova, E. G., Akopova, E. C., Alekhina, E. S., Dubova, Y. I., Popova, J. N., Avdeeva, I. A., & Proskurina, I. Y. (2013). Methodology of development of strategy of development of economic systems. *World Applied Sciences Journal, 26*(4), 489-493.

Popkova, E. G., Morkovina, S. S., Patsyuk, E. V., Panyavina, E. A., & Popov, E. V. (2013). Marketing strategy of overcoming of lag in development of economic systems. *World Applied Sciences Journal, 26*(5), 591-595.

Shakhovskaya, L. S., & Klimkova, K. O. (2014). The Contents and Structure of Innovative Activity in the Russian Economy. *Asian Social Science, 10*(23), 51-59. http://dx.doi.org/10.5539/ass.v10n23p51

Sibiryatkina, I. V., Bezrukov, B. A., & Mayzlish, A. V. (2013). Improving the process of modeling the provision of investments for innovational development of industry. *Actual issues of scientific work and educational activity: 13 volumes: collection of scientific works on the basis of proceeding of International research and training conference, January 31, 2013* (V. 6, pp. 122-125). Ministry of education of science of the Russian Federation. Tambov.

Sibiryatkina, I. V., Bezrukov, B. A., & Mayzlish, A. V. (2013). Scientific approach to formation of model of innovational development of enterprise in a resource-constrained environment. *Socio-economic phenomena and processes, 1*(47), 164-168.

Sibiryatkina, И. V., Bezrukov, B. A., & Mayzlish, A. V. (2013). Methods of modeling for solving economic tasks of innovational development of enterprise. *Modern problems of functioning of entrepreneurial structures under conditions of transition of economy to innovational path of development: proceedings of International research and training conference* (pp. 359-365).

Troyanskaya, M. A., & Tyurina, Y. G. (2014). Managing Risks of Venture Entrepreneurship. *Asian Social Science, 10*(23), 191-198. http://dx.doi.org/10.5539/ass.v10n23p191

Valitov, S. M., Tufetulov, A. M., & Yartiev, A. F. (2014). Increased Opportunities for Private Business as a Direction Vector of Development of the Russian Economy (Case of Volgograd Region). *Asian Social Science, 10*(23), 44-50. http://dx.doi.org/10.5539/ass.v10n23p44