

## ASSESSMENT OF MANAGEMENT EFFECTIVENESS OF INVESTMENT IN INNOVATION IN SMALL ENTERPRISES

Yuri Anatolyevich Doroshenko  
Belgorod state technological University Russia

Irina Olegovna Malykhina  
Belgorod state technological University Russia

Irina Vladimirovna Somina  
Belgorod state technological University Russia

### ABSTRACT

In this article the analysis of methodological approaches to the assessment of management effectiveness of investment in innovation in small businesses, as well as the most important ways to optimize the management of innovative-investment activity of small enterprises, including through the use of balanced sources of funding. We identified the most significant business risks affecting the operations of small businesses. The article also analyzes the principles of constructing a model of organizing a set of objects in the research process, the indicators are quantitative indicators, which involves the compilation of a rating of development of innovative potential of regions of the Russian Federation. Small businesses make a significant contribution to innovative development of the region, whereby it may also be applied to the considered methodological approach. At the same time to achieve the high growth rates of investment in innovation development of national economy achieved largely due to effective management of innovative-investment activity of small businesses.

**Keywords:** *Investment, innovation, efficiency, management, small businesses.*

### INTRODUCTION

In modern economics the notion of "entrepreneurship" is defined as an independent way of economic activity, the most important characteristics of which are mandatory conditions of risk and elements of innovation. Despite the fact that large and medium-sized enterprises make the most significant contribution to the development of the national economy, due to the scale of their activities, the composition of the business still secrete small businesses [1].

Small businesses are to a greater extent flexible than the subjects of large and medium-sized businesses. In their work it is much easier to implement innovative solutions of various origins, both productive and organizational, respectively, they are more exposed to risk. So, J. Schumpeter is the founder of innovation as a science, in his writings noted that risk and innovation are interrelated.

Small business entities allocate small enterprise. A small business based on private ownership, is based on the use of the limited size of own capital and borrowed sources of financing of innovation in order to produce innovative products and provide innovative services [2]

Note that the major focus of business activity is investment in entrepreneurial activity. Investment process in small enterprises, modern scientists define as the process of investment activities, organized and managed by small businesses using risky innovation investments, the limited value of non-current assets innovative aggressive and moderate short-term nature and extensive in the initial stage of investment [3].

Since the development of innovation activities and stimulation of innovative activity of subjects of economic relations at various levels and organizational forms is a prerogative of public policy, evaluation of management effectiveness of investment in innovation of both the region and small businesses, as part of its innovation system is an important task.

## **METHODIC**

The main methodological approaches used in the assessment of the effectiveness of management investments, including in innovation processes were identified and described in the works of foreign authors P. Drucker, R. Cantillon, A. Marshall and others, as well as Russian scientists, I. G. Andreeva, A. I. Bazilevich, V. L. Gorbunov, V. YaGorfinkel, V. V. Zabolotskaya, N. A. Kazakova, M. G. Lapusta etc.

The main principles of investment science, including in relation to small enterprises, were highlighted in the works of well-known foreign researchers G. Markowitz, M. Miller, F. Modigliani, S. Ross, B. Terborgh. Russian scientists these principles are elaborated on, namely, V. V. Bocharov, Yu. A. Doroshenko, D. A. Yendovitsky, I. V. Somina, A. G. Ivasenko, N. V. Kiselev, A. A. Rudychev, P. P., Taborsak etc.

While investment activity is regulated by norms of various branches of law: corporate, civil, private, budget, tax, administrative, customs, international.

The main laws regulating investment activity in the Russian Federation are:

- Federal Law dated February 25, 1999 # 39-FZ “On investment activity in the form of capital investments.”
- Federal Law dated July 09, 1999 # 160-FZ “On foreign investments in the RF.”
- Federal Law dated November 26, 1998 # 181-FZ “On the budget of development of the Russian Federation.”

Legal regulation of state participation in investment activity is carried out, in particular, by the decree of the President of the Russian Federation “On private investments in the Russian Federation”, as well as numerous Government resolutions adopted in this field [4].

We are convinced that existing in modern economic science methodological and practical approaches to the solution of problems of management of innovative-investment activity of small businesses are relevant and important, but we need further development to ensure that in the future the process of financing both traditional and innovative investment sources was more effective.

## **THE MAIN PART**

In the economic literature investment and innovation projects were sufficiently developed by domestic and foreign authors. However, in a rapidly changing geopolitical conditions, the problem of increase of efficiency of innovative-investment activity of small businesses is very important. In the course of solution of this problem it is important to identify business risks and to find ways to neutralize them or minimize the resulting negative consequences.

In the scientific literature and domestic and foreign scientists are the following types of business risk [5].

1. Production risk is directly related to the economic activity of enterprises oriented to gain maximum profits by satisfying the needs and demands of customers according to the requirements of the market.
2. Commercial risk: this is linked to commercial activities.
3. Financial risk: associated with financial activities.

However, many scientists believe that the greatest risks are concentrated within a source of investment financing in the framework of the investee, that is innovation [1]. In other words, business risk occurs in all types of economic activity of the entrepreneur in the first place, innovation.

Thus, it is necessary to create a system of management of innovative and investment processes in small business, which will give the possibility of predicting the effectiveness of management of investment in innovation. The researchers determined the efficiency of investments as a result of the investment to some investment costs or changes possible investment result in relation to the possible change of the investment costs [3, 6]. Thus the semantic value of a concept of investment efficiency and effectiveness of the investment management equation.

In the evaluation of management effectiveness of investment in innovation in the segment of small business we believe that small businesses are part of the innovation system of the region, making a significant contribution to the development of innovative potential of subjects of the Russian Federation. So, we believe it possible to consider this aspect of overall integrative assessment of development of innovative potential of regions of the Russian Federation [7].

We analyze methodological approaches to rating formation of innovative potential development of the regions of the Russian Federation, which is a compilation of a list of leading and lagging regions on the basis of careful study of the characteristics of each indicator included in the innovation indicator proposed by such scientists of the Higher school of Economics L. M. Gokhberg, S. Y. Fridlyanov etc. [8]. In this methodology, a low value of the indicator on one indicator (set of indicators) is compensate by sufficient magnitude different, that is able to take into account the maximum number of options of subjects across the set of selected indicators (ranking system). Under the "rating" scientists understand a model for organizing a list of objects on the basis of indicators quantitative indicators or estimates of rating. The rating is used in the form of a instruments for the evaluation of one object against another [8].

The process of creation of a rating by analogy with structured methodology is the following sequence of steps. During the first stage, the analysis of the indicators that are proposed to be included in specific clusters [9]. The qualitative content of the indicator should reflect the positive processes or phenomena, that is, the higher the indicators should reflect a positive process momentum and increase the ratio.

If this condition is not satisfied and the indicator shows a negative process or phenomenon, its interpretation changes and therefore used a re-calculation of its values [8]. The increase of the indicator should reflect the improvement in condition reflects the process or phenomenon.

In the second stage for each section are calculation values of the four sub-indices. The comparability and homogeneity of the selected indicators was achieved through a transition from absolute values to normalized, i.e., weighted.

In respect of indicators, which are not specifically allocated spectra (for example, from 0 to 100%), before carrying out the process of normalization involves the estimation of the level of asymmetry of a distribution relative to the averaged indicator.

Based on the findings of the study conducted by L. M. Gokhberg, S. Y. Fridlyadnova etc. [8], the asymmetry of the distribution in order to smooth the impact of extreme values on the final result of ranking, the indicator can be converted by using the following formula:

$$\tilde{F}_j^n = \sqrt[R]{F_j^n}, \text{ where} \quad (1)$$

$\tilde{F}_j^n$  - converted value of j- figure in n region;

$F_j^n$  -initial value of j- figure in n region;

R - degree of transformation, which values are in the interval [2;4], depending on the magnitude of the coefficient of asymmetry.

This formula, modifying accordingly, can justly be applied when rating small businesses based on the evaluation of the effectiveness of investments in innovation.

$$\tilde{G}_i^k = \sqrt[G]{G_i^k}, \text{ where} \quad (2)$$

$\tilde{G}_i^k$  - converted value of i indicator of k- enterprise;

$G_i^k$  -initial value of i indicator of k enterprise;

G - degree of transformation, which values are in the interval [2;4], depending on the magnitude of the coefficient of asymmetry.

With symmetric differentiation rate of asymmetry below 0.5, the conversion indicator is not performed (R=1).

The implementation of rationing of indicators for each region is produced as the ratio of the difference between the value of the indicator in the region and the minimum indicator for all subjects to the difference between the highest and lowest figures of this indicator for all subjects. The range of indices of the normalized indicators is limited from 0 to 1. The indices of the coefficients of the subjects for each thematic section, costs are calculated as the arithmetic average of the normalized indicators. All indicators have the same importance [8].

The degree of development of small innovative entrepreneurship in the region's economy depends, firstly, from being implemented at different levels of the policy of innovative development, and includes the analysis of the susceptibility of small businesses to innovation and the successful creation of such [10]. Secondly, it is from the development and application of methods of optimization of management of innovative-investment activity of small enterprises [11].

This optimization process is possible, based on the implementation of two approaches: reform of organizational structures of management; ensure sufficient funding based on the balance between traditional and innovative sources of investment [12].

## SUMMARY

Difficult geopolitical conditions in which Russia finds itself today, of course, have a negative impact on economic growth, quality of life, the pace of development of entrepreneurship, small special. In the circumstances, the scientists find only one way out of the crisis – the transition to a new type of economy that will be based on new knowledge, technology, innovation. An innovative path of development involves the activation of scientific and innovation activities in scientific institutions and high schools, as well as restoring vital sectors of the economy (industry, agriculture, pharmaceuticals, etc.) in modern ways, one of which is the application of innovations, both productive and organizational .

The need to create high-tech innovative economy require businesses, in particular small high-growth investments in innovation create the foundation for sustainable economic development, as the world practice has convincingly shown that entrepreneurship and innovations are interrelated and interdependent .

We believe that the problem of insufficient development of small businesses should be addressed by improving the management of their innovation and investment processes.

## CONCLUSIONS

In conclusion, we will summaries the main results:

1. The main feature of adaptation to changing external factors of a small business is the innovation of its projects.
2. One of the directions of optimization of management of innovation and investment processes in the activities of small businesses is to reform their organizational structures .
3. The use of traditional and innovative investment resources is key to a balanced financing of small businesses to encourage innovation and investment activities.
4. Diversification of sources of investment financing is an effective mechanism of management of innovative-investment risk of small company.
5. Management innovations are key to the management of investments in innovation.
6. The optimization process of management of innovative and investment processes in a small business has to rely on public support.

## ACKNOWLEDGEMENT

The article was published with the financial support of Ministry of Education and Science of the Russian Federation within the framework of state assignment to the project #26.1511.2014K “Theory and methodology of managing innovational and investment process in small business enterprises”.

## REFERENCES

1. *Doroshenko, Y. A., S. A. Komissarov, 2012. Small enterprise as a subject of innovative entrepreneurship. Socio-humanitarian knowledge, 8: 165-171 .*
2. *The Federal law dated 24.07.2007 # 209-FZ “On development of small and medium entrepreneurship in the Russian Federation . ”*

3. Doroshenko, Y.A., I.V. Somina, S.A. Komissarov and S.Y. Doroshenko, 2015. *The Essence and Characteristics of Investment Processes in Small Innovative Enterprises*. *Asian Social Science*, 11(6): 185-191 .
4. *The official website of the Ministry of Economic Development of Russia. Directions of state support of small and average business*. URL: <http://economy.gov.ru/minec/activity/sections/smallbusiness> . /
5. *Study of prospects of development of resource potential of small business for the period up to 2020: theory, methodology, practice*. URL: <http://www/gostorgi.ru> . /
6. Doroshenko, Y.A., I.V. Somina, A.Y. Arkatov and V.N. Ryapukhina, 2015. *The principles of assessment and minimization of the business risks of business*. *Održavanje mašina I opreme: XL naučnostručni skup, Beograd – Budva*: 468-477 .
7. Glagolev, S. N., Yu. A. Doroshenko, A. V. Manin, 2014. *Investment and innovation potential of the region: essence, values, impact factors and methods of optimization*. *Newspaper of BOKEP*, 2(50): 127-132 .
8. Gokhberg, L. M., 2014. *The rating of innovative development of subjects of the Russian Federation*. M.: NRU "HSE", pp. 88 .
9. Doroshenko, Y.A., L.A. Minaeva, I.V. Somina, A.V. Manin and G. N. Avilova, 2014. *Research potential as a basis for innovative development of the region*. *Life Science Journal*, 11 (12s): 143-147 .
10. Kalugin, V.A., O.S. Pogarskaya and I.O. Malykhina, 2013. *The principles and methods of the appraisal of commercialization projects of the universities innovations*. *World applied sciences journal*, 1(25): 97-105 .
11. Vladika, M.V., I.O. Malykhina, 2013. *Scientific and methodical bases of formation of indicator system of innovative potential assessment of higher educational institutions*. *World applied sciences journal*, 12(25): 1722-1728 .
12. Doroshenko, Y. A., I. O. Malykhina, 2016. *The impact of innovative-investment potential of the region on the sustainable development of small innovative enterprises created on the basis of universities*. *Newspaper of BSTUn.a. V. G. Shukhov*, 8: 209-212 .