

TIES 2020**International conference «Trends and innovations in economic studies»****OPTIMIZATION OF REGIONAL INNOVATIVE ENTERPRISES:
THEORETICAL ASPECTS**

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Abstract

The paper presents the theory and methodology of methodological approaches' formation to the improvement of small innovative enterprises efficiency, creation of the necessary conditions for efficient operation, increase of enterprises' competitiveness. The authors studied the research connected with the identification of the peculiarities and laws of innovative development of enterprises of small business in the conditions of global competition. They evaluated their condition and interaction with external organizations, determined the ways to improve the development and selected the areas for further improvement. The theoretical approaches to the nature of the concept, types and classification of small enterprises and innovation were determined and studied. The authors considered international experience in the management and regulation of small innovative enterprises. During the research the basic forms and methods of management and support of small innovative enterprises were established and substantiated, the motivational aspects of innovative activity of small enterprises were studied and a systematic approach to increase the efficiency of innovative activity of small innovative enterprises was proposed. Moreover, the criteria and indicators for the assessment of financial performance of small innovative enterprises were developed and the cluster tool to increase the efficiency of activity of small innovative enterprises was proposed.

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1. Introduction

The ease of reorientation of production, innovation of products, rapid response to market needs, achieving the most efficient performance, and many other parameters specified one of the main priorities of Russian economy – the creation of conditions, providing a radical development of enterprises of small and average business. The greatest interest in this sector of the economy is given to innovative-technological activity of industrial enterprises. To improve the efficiency of innovation enterprises of small and medium businesses need state maintenance and defend of interests of innovative enterprises of minor and middle business, aimed to ensure competitive advantage. This will provide the potential of growth, increase the share of technology-intensive production and develop a support system. Moreover, it will provide the use of trade-economic, information, financial, organizational and advisory tools (Shalamov & Ageeva, 2019). It is necessary to ensure innovation activity, for the provision of not only the production base upgrade but also the introduction of modern innovative technologies in management system in order achieve the dynamic and stable development of an enterprise.

Innovative activity of small enterprises is related to the orientation of businesses at the demand and growing market needs, competition and the increasing complexity of economic relations due to objective necessity of science and technology development and the regularities of market relations.

Due to this reason, the topic of the creation and development of competitive and innovative small and medium business is a relevant issue. It can be explained by the need to understand how particular components of innovation policy can stimulate the development potential of innovative medium-sized and small enterprises. The lack of theoretical and methodological principles and problems of formation of methodical approaches to increase of efficiency of minor innovative companies justified the relevance of this research topic.

2. Problem Statement

The scientific basis for the study consists of the works and the studies by foreign and local authors reflect the development and implementation of advanced strategies for companies, including small businesses, such as the companies of Technopark of Irkutsk Technical University and the main trends of development which are reflected in the publications of A.S. Nechaev, Vladimir Yu Konyukhov (Koniukhov, Nechaev, & Kychkin, 2014; Nechaev, Antipina, & Antipin, 2015), A.S. Bovkun (Muftahova, Nechaev, & Antipina, 2015; Zakharov, Bovkun, & Vasiliev, 2017) and this author (Nechaev, Antipina, & Prokopyeva, 2014; Nechaev & Prokopyeva, 2014; Zakharov, 2015).

3. Research Questions

The study used such sources and documents, as well as Technopark standards of Irkutsk State Technical University (for small innovative companies). It is necessary to note that in spite of the large volume of our and other works concerning many aspects of small and medium-sized enterprises, including high-tech, many theoretical and practical aspects of this problem are contradictory and need to be studied. For example, the components of the creation of methodical approaches for the increase of efficiency of small innovative enterprises are underdeveloped. Scientific hypothesis is the formation of

methodological approaches to the improvement of the efficiency of small innovative companies, which allow justifying the priority of the specified process and giving recommendations for its improvement.

The research object are the methods and tools to justify the directions of efficiency increase of small innovative companies.

The research subject is a set of organizational and economic relations of the formation of methodical approaches aimed at the increase of efficiency of small innovative companies.

4. Purpose of the Study

The research purpose is the synthesis and development of theoretical and methodological provisions of formation of methodical approaches aimed at the increase of efficiency and high return on small business profits.

5. Research Methods

The theoretical-methodological basis of the research is presented by the recent studies of the problems of small innovative companies. During the research, various methods were used, such as: economic and statistical analysis, system and comparative analysis, logical methods, differentiation and construction of schemes, logical and theoretical analysis. According to the theoretical papers of Russian and European researchers on the theory and practice of companies, mathematical and economic methods of the assessment of the performance of small innovative companies, were developed to improve the profitability management decisions and functioning of innovation enterprises of any type (Nechaev, Antipina, & Antipin, 2015; Muftahova, Nechaev, & Antipina, 2015; Zakharov, Bovkun, & Vasiliev, 2017). In addition, the theoretical basis is presented by the provisions of labour code, civil laws, Federal and regional regulatory documents for the regulation of the activities of companies. The experimental grounds are presented by the materials of the Federal state statistics service of the Russian Federation, reports of University technology parks, information materials of other studies which are published in periodical and economic journals of Russia and other countries, data from Internet portals, as well as research and calculation results (Nechaev, Antipina, Prokopyeva, 2014; Nechaev & Prokopyeva, 2014; Zakharov, 2015).

6. Findings

Since the purpose of our research is to synthesize and improve the theoretical and methodological grounds (finalizing the provisions) of the formation of methodological approaches for dramatic improvement of the effect of small innovative companies. This fact determined the solution of the interrelated issues:

- to study the theoretical positions, as well as the concepts, types and classification of small companies and innovative activity itself;
- study the international practice and experience of managing and conducting business of small innovative companies;
- to find and justify the key methods of management and support of small innovative companies;

- to understand and identify the motivational aspects of innovation activity of various small businesses;
- to develop a systematic approach in order to increase the real return on innovative business;
- to define criteria and indicators for the evaluation of financial performance of small innovative companies;
- to provide a cluster mechanism for the improvement of the performance of small innovative companies;
- to identify the sources from which allow increasing the effectiveness of innovative work;
- to develop a methodology for determining sources for the improvement of the efficiency of innovative activities of companies.

The scientific novelty of this work lies in the fact that a comprehensive methodological formation of various components of methodological approaches to the improvement of the effectiveness of small innovative companies and recommendations for its further improvement.

The most important postulates and recommendations in the formation of approaches to improve the profitability of companies that have scientific relevance and basis are as follows:

1. The innovation objects are presented by not only products (services), but also technologies, so we give the following definition of innovation: "innovation is a system of differentiated measures aimed at creating and implementing innovative activities, which are new or modernized products or services, new or modernized technologies, as well as new or modernized processes. This is performed in order to make a profit or a significant useful product, achieve competitive advantages over other manufacturers, and ensure the stable development of a company.

2. The main forms, methods, and ways of managing new developments are developed, which offer a system and a specific quantitative indicators. The main forms are: report on innovation project state; structure of the final report on a standard project; complex project report; quarterly progress report; information on innovation project state; work diary; employee report on the work done.

3. We have justified the allocation of quantitative indicators of innovation activity of such criteria and indicators as: net cash flow; cost; capital structure of the enterprise; the structure of liquidity of financial assets of the company; the structure of current expenses of the enterprise; financial resources concentration in areas of special risk and relative indicators calculated on the basis of absolute performance data for the past period.

4. A systematic approach was developed to improve the efficiency of small businesses, including:

- * a system of indicators characterizing the performance of small companies (these indicators form the 1st block of the system);
- * special risks of small business development-they form the 2nd subsystem;
- * investment activity indicators of small businesses-they form the 3rd system;
- * structures included in the system (efficiency and investment activity indicators and other components).

5. developed criteria and indicators for the financial performance assessment of innovative companies, which make up a profitability indicators system, business activity indicators of a company,

financial stability indicators. We can calculate it according to the balance sheet and profit and loss statement, which are part of the report on small innovative companies.

6. identified sources for the improvement of the profitability of small innovative companies, namely: factors related to reducing costs and improving efficiency; reducing various types of risks that form a risk indicators' system in conjunction with factors and individual indicators.

7. the recommended method of quantitative evaluation of the sources for the improvement of the effectiveness of innovation activities, consisting of three components, occurs in 3 stages:

Stage 1. The calculation of net monetary profit from the creation of an innovative solution – a product for evaluating quantitative factors.

Stage 2. The determination of sources for the improvement of the effectiveness of innovative products implementation, taking into account environmental factors.

Stage 3. Assessment of the quality of solutions for the implementation of methods to improve the effectiveness of innovation activity.

7. Conclusion

In conclusion, it is important to distinguish between small and medium companies, as well as the allocation of micro-companies, which can be made using quantitative, qualitative and comprehensive methods of determining business, which are used in practice.

It was found that the objects of innovative work are not only goods and services, but also technologies.

In this context, we have formulated and given the definition of innovation.

Therefore, technological innovations consists of not only goods and services, but also innovations in technology.

3. We recommend dividing the international experience in small innovative entrepreneurship into the following areas:

- Experience in the field of state regulation;
- Experience in the creation of additional jobs;
- Experience in reducing administrative barriers;
- Experience in the use of universities;
- Experience in export orientation.

4. Types of small businesses, depending on the criteria of division – the problems to be solved, the content of special tasks (activities), the nature of products, or place and development level – may be as follows:

- Economic, environmental, social
- Technical-scientific, scientific production (technical), Advisory, promotional, mediation
- Enterprises engaged in the exploitation and development of production of industrial purpose
- Enterprises, which produce consumer goods
- Companies, which develop and master intermediate and finished products, component parts
- Software integrity evaluation systems (SIES) in management structure of large research institutes and NGOs
- Shadow SIES
- Software integrity evaluation systems of the self-supporting administrative units
- Knowledge-intensive SIES "free floating"
- University SIES

- The vital and fast growing

5. Forms and methods of innovation management use the documentation set and specific quantitative indicators. The main documents are project status report, structure complex project report, monthly progress report, factsheet project status, weekly employee work diary, monthly employee's report.

6. It is advisable to identify clear benchmarks and performance indicators such as net cash flow of an enterprise; value of assets; capital structure of the company; the structure of financial liabilities of a company; the liquidity of a company; structure of company's assets; the structure of current expenditures, innovative enterprises; concentration level of financial operations in areas of special risk.

7. State regulation of technological entrepreneurship policy is a system, which consists of tax, depreciation policy, insurance, lending, as well as federal and regional orders, infrastructure and finance. To improve the effectiveness of the scheme and methods of state support for innovative entrepreneurship, it is necessary:

- Improvement of mechanisms of state support;
- Improvement and harmonization of legislative base;
- Improving information management of authorities and entrepreneurs.

8. The motives of people engaged in innovative activities should be in two aspects: a mechanism for stimulating the enterprise as a whole and motivational incentives for the company's personnel.

In fact, to stimulate and develop the motivation of the company's Director and employees to innovate, it is necessary to use a set of special tools: wages, bonuses as a result of effective work of the company, and stock options, that is, the promotion manager by granting of the right to buy company shares at par value, which presents a significant part of the total income in case of good market conditions.

For successful implementation in small business innovation policies should be developed at the enterprises of standard motivation and stimulation of staff. As the sample is offered a standard of Motivation and stimulation of personnel of the Technopark of Irkutsk state University.

9. The collaboration of large and small companies for the implementation of innovation projects increasingly feasible with the use of the cluster approach, as well as non-profit collaboration.

10. A systematic approach to the improvement of the efficiency of business innovation should include:

- Indicator system which characterizes the efficiency of entrepreneurship and formation of the 1st system;
- Risks of innovative companies development that form the 2nd system;
- Indicators of the investment attractiveness of sellers and buyers, which form the 3rd system.
- The elements included in the system are indicators of efficiency, investment attractiveness and profitability.

11. A study of innovative small business in the Siberian region showed that almost detailed and complete analysis which is based on reporting is quite sufficient, and only two indicators are used in the assessment – the volume of research performed and investment in the company.

The most correct and adequate for the calculation of the financial performance of small innovative companies is the index, which consists of not only profitability, but also indicators of business activity, financial sustainability, which we can calculate according to the balance sheet and statement of profit, generated in the reporting of small innovative companies.

12. The determination and justification of sources for the increase of efficiency of small innovative companies is connected to:

- First, the influence of factors related to lower costs, increase profitability;

- Secondly, with the homogenization of various risks, reducing the impact of which can significantly promote efficiency.

13. The system of indicators of risks should include factors of private values of variables and methods. Private performance of the factors can be unique to single small businesses and accompanied with particular indicators and methods of their calculation and precise methods of selection, which reflect sectoral and regional characteristics, purpose, sources of innovative solutions.

14. The groups of indicators reveal the sources of increase of activity efficiency of small innovative companies such as scientific and technical; institutional; industrial and technological; economic and financial; social; environmental; sectoral (regional); legal; organizational communication; market (marketing). For each group of factors there is a set of particular indicators, which may differ in accordance with the nature of industry, purpose and profile of companies, purposes of the selection of innovative solutions, implementation stages and formation sources.

15. The conditions forming the innovation component of enterprises are divided into internal (related to a company) and external (outside a company), depending on which sources determine the conditions associated with these conditions. In its turn, external factors are direct and indirect. For an overall assessment of the influence of factors on innovative solution in terms of its reality and determination of the opportunities to increase profitability, we have a set of indicators. Assigning weight to indicators for every indicator is formed on the basis of expert evaluation.

16. The method of quantifying sources to increase the profitability of innovative work can include the following things and is performed in 3 steps:

Stage 1. The calculation of net monetary profit from the creation of an innovative solution – a product for evaluating quantitative factors.

Stage 2. The determination of sources for the improvement of the effectiveness of innovative products implementation, taking into account environmental factors.

Stage 3. Assessment of the quality of solutions for the implementation of methods to improve the effectiveness of innovation activity.

The development of the methods for the use of sources for the improvement of the efficiency of innovation in educational and academic institutions is in the creation of small companies at universities and research institutes and their commercialization.

17. Tax policy is a strong tool to stimulate innovation policy and capacity-sources of financing.

In order to increase the effectiveness of innovative projects it is necessary to apply the following tax policy measures:

- * the amount of tax to extend the tax exemption (or introduce a reduced tax rate) for enterprises participating in projects, using different sources of funding;

- * the amount of investment tax credit for innovation activities is set in proportion to the absolute values or growth of the tax base;

- * to introduce tax holidays for several years on profits from innovative projects implementation;

- * income tax benefits

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