Providing innovational activity of enterprises of the real sector of the economy

Tatyana Bezrukova1 *

1 Voronezh State Academy of Forestry and Technologies, Russia

Abstract. The article is devoted to research of opportunities and prospects of providing innovational activity of enterprises of the real sector of the economy. The author analyzes the innovational activity of enterprises of the real sector of the economy, develops recommendations for providing innovational activity of furniture manufacture, and designs a program of innovational development of enterprises of the real sector of the economy.

Key words: innovations, innovational activity, investment activity, innovational decisions, portfolio technologies.

JEL Codes: O31, L85.

1. Introduction

The specific features of current economic situation include constant changes in the economic relations and the extent of difficulty of running entrepreneurial activity under the conditions of Russia’s integration into the world economy and growth of competitiveness. Transforming changes are taken place against the background of post-crisis recovery of the Russian economy and realization of a strategy of industrial modernization. One of the perspective ways of providing effective modernization of industry in Russia and economic development of industrial enterprises is their innovational activity.

Practice shows innovational activity of industrial enterprises can both provide high level of economic development and increase their competitiveness and export potential. Innovational activity is an essential part of successful functioning of enterprises of the real sector of the economy, providing their substantial development on short-term and long-term.

2. Analysis of innovational activity of enterprises of economy real the sector

The scientific researches, devoted to the issues of innovational development of enterprises are studied in the works of different scientists. It is possible to mark out P. Druker, M. Porter, J. Schumpeter, R. Fathkutdinov, and many others. Moreover, the issue of influence of process innovations on competitiveness of enterprises of the real sector of the economy is not paid enough attention.

The realization of the results of innovational activity at an industrial enterprise is the main factor of increasing of competitiveness of its production. It provides increase of market demand on production of enterprise and decrease of cost-price of production [1]. This is explained by increase of industrial resources by using efficiency, introduction of energy-saving and low-wasted technologies, which create conditions for long-term development of an enterprise.

* Doctor of economics, Professor, Voronezh, Russia, 394087, st. Timiryazeva, 8., tel/fax: +7 (473)225-39-03, e-mail address: bezrukova_t_l@mail.ru.
Innovation-oriented enterprises of the economy real center should creatively carry out development of industrial technologies, invest in their creation and introduction, continuously modernize their production, technical and technological basis for strengthening their marketing positions and providing planned positive financial results.

The problem of providing innovational growth of activity of industrial enterprises is important for modern Russia. The business-structures themselves, are interested in providing activity of manufacture, and its solution demands taking of different innovational decisions. Moreover, it is necessary to mention, innovational activity in Russia is rather high, which are proved by the statistics data.

In 2013 the amount of innovation-active of enterprises of the real sector of the economy constitutes 845.7 thous. enterprises (14.9% of the general quantity of industrial enterprises), in 2012 their amount was 746.3 thous. enterprises (14.2% of all industrial enterprises). The negative tendency, presented at the fig.1, shows that not every industrial enterprise in Russia understand that active innovational activity is a necessary condition for keeping their competitiveness.

As in Fig.1, the economic crisis led to reduction of amount of innovation-active enterprises in Russia. After 2011 liveliness of innovational activity of enterprises of Russian economy real sector was observed.

It is necessary to mention that small share of export of innovational production is related to low level of competiveness, which can be depended on different factors: absence of full informational basis according to realized innovational projects, weak material technical and scientific basis, insufficient state financial support of domestic industrial enterprises, low level of taken administrative decisions in the field of choice of innovational projects, which should be realized in the market of innovational products, insufficient risks, etc. The statistics of the innovational activity of enterprises of the economy real sector in 2010-2013 is presented in Table 1.

| Table 1: The statistics of innovational activity of enterprises of the economy real sector in 2010-2013 |
|---------------------------------------------------------------|---------|---------|---------|---------|
| Amount of enterprises, thous. un.                            | 2010    | 2011    | 2012    | 2013    |
|                                                               | 4823,3  | 4866,6  | 5255,928| 5676,402|
| Amount of innovation active enterprises, thous. un.          | 752,4348| 671,5908| 746,3418| 845,7839|
| Share of innovation active enterprises, %                     | 15,6    | 13,8    | 14,2    | 14,9    |
Analyzing the data of Table 1 it is necessary to say that the main sources of investment financing were the own assets, the share of which in the total sum of expenses of innovational activity financing ranged from 51.4% to 63%. In 2013 the assets of foreign investors in innovational sphere amounted to 10.2% of total financing. In comparison with the previous year, the volume of direct foreign investments to innovational activity of activity significantly increased, but their share in the total volume of financing remains insufficient. The structure of creation of advanced industrial technologies in Russia in 2013 is presented in Fig. 2, 3.

![Fig. 2: Structure of creation of advanced industrial technologies in Russia in 2013 according to types of technologies](image1)

![Fig. 3: Structure of creation of advanced industrial technologies in Russia in 2013 according to novelty of technologies](image2)

As in Fig. 2, 3, the advanced industrial technologies are created mainly in the sphere of production, treatment and assemblage (36%). In Russia mostly, not principally new, but borrowed technologies are created, which are new just for Russia (57%).
3. Providing innovational activity of furniture production

In order to provide innovational activity of the real sector of the economy – furniture production it is necessary to:

1. develop a system of state support of innovation active enterprises;
2. attract foreign investments;
3. form a system of innovation commercialization;
4. manage risks while conducting innovation projects.

Let us discuss the mentioned directions of providing innovation activity of furniture production more carefully. The system of state support of innovation active enterprises should provide granting subventions on realizing innovation developments, and accordance of tax privileges for innovation active enterprises, producing furniture.

In order to finance conducting innovational developments in the sphere of furniture manufacture it is necessary to attract foreign investments, which needs improvement of general investing climate and business-climate in the country [3]. It can be provided on the account of stabilization of economic and political situation, and creation of favourable regulating judicial basis for attracting foreign investments.

The formation of the system of innovations commercialization encourages development and introduction of new technologies, since it, firstly, stimulates innovational developments, guaranteeing their creators with benefit receiving, and, secondly, encourages the realization of innovational developments, by introducing them to real enterprises, which need them. Thereby, the given system performs as a platform, uniting demand and supply of innovational developments.

Risk management while conducting innovational projects allows to increase their investment attractiveness and provide them with necessary financing. Risk management is possible within the framework of the system of portfolio technologies, which allows to form a portfolio of innovational projects [4]. Within the framework of this portfolio risks are equally distributed among different innovational projects, and an enterprise can continue to exist even in a case of failing one or some such projects, as even some with a high probability would appear to be successful and would pay for the whole innovational activity of enterprise.

4. Program of innovational development of enterprises of the economy real sector

Innovations significantly influence competitiveness of enterprises, which allows to increase the efficiency of their activity [5]. But this process is characterized by a range of factors, which hinder development of a company and significantly complicate the process of managing risk changes – this can negatively influence the level of competitiveness of enterprises of the real sector of the economy.

Among these factors, the important aspect is the absence of sufficiently full informational basis about entering data of innovational projects, which leads to incorrect designing and evaluating, diminished efficiency of projects commercialization and makes coordination of innovational process impossible, which can negatively influence competitiveness of a company [6].

The evaluation of competitive sources of risks and their influence on innovational projects of an industrial enterprise is one of the problems, which need urgent solution (fig. 4).

Competitive positions of a project at the technology market is one of the direct consequences of introducing innovational technologies, and this has a fundamental significance for providing competitiveness of new products [7]. Technological innovations provide the highest level of efficiency of innovational projects, that is why it is impossible to produce principally new products without them, and manufacture of traditional products decrease production costs. Process of development and introduction of technological innovations indirectly characterizes the level of novelty of production at the market.
Considering all information given above, it is possible to say that special significance is obtained by technological audit, as an instrument of realizing innovational transformations on the basis of technological reorganization of company [8]. But in order to provide efficiency of reorganization it is necessary to carefully analyze all functions and parameters. This places new requirements on scientific ground of methods, which are used while monitoring, terms and conditions of technological standardization of audit.

Technological audit of concrete results represents the description of industrial and technological base of enterprises of the real sector of the economy, management systems and informational base. Also it is necessary to consider technologies, which are used by the enterprise.

1 stage: Evaluation of competitive sources of risks from introducing innovations:
- Determination of competitive risks of external and internal sources, which influence conducting of innovational growth;
- Collection of information about every source of risk;
- Evaluation of competitive sources of risks, which arise at the stage of innovation commercialization.

2 stage: Analysis of probability and possible consequences of risk events:
- Detection of competitive risks;
- Compilation of risk chart;
- Risk evaluation by force of experts;
- Determination of integrated level of risk after realizing innovation project.

Factors of risk changes from introduction of new product or technology:
1. Appearance of goods-substitutes;
2. Intension of competitiveness at the market;
3. Marketing activity of competitors;
4. Competitive position of clients;
5. Competitive position of projects at the market of technologies;
6. Competitive positions of suppliers.

Factors, which indirectly influence risk level
1. Risks of commercializing innovations;
2. Sale risks;
3. Price risks

3 stage: Development of program on risk prevention:
- Development of strategy of risk management;
- Development of competitive system of risk management.

4 stage: Monitoring and correction of results of realization of an innovational project

Fig. 4: Program of innovational development of enterprises of the real sector of the economy
Total results of audit includes results of review of competitors’ technologies, determination of ‘technological standard’ of sector, which is necessary for company development, recommendations on formation of portfolio of innovational technological projects. The results of technological audit are the basis for program of innovational development of enterprise in order to increase its level of competitiveness [9].

At the next stage of the program of innovational development of industrial enterprises the issue of technology transfer, which became a compulsory part of business reorganization, should be solved. Technology transfer nowadays is considered as an instrument for introducing innovations into enterprises and technical management, it demands creation of a base of knowledge of industrial enterprises, which would conclude archive of technical developments (taken and disposed) of an enterprise, description of industrial business-processes and their interconnections, characteristics of portfolio of products of enterprises, digital characteristics of new product, description of system of quality development at enterprises, etc. [10].

The solution for the problem of technology transfer includes collection of external information: constant monitoring of new products and technologies at the market, review and analysis of obtained information – afterwards this information can be used at enterprise. Monitoring of technologies is the basis of technology transfer [11]. Different countries use different approaches to managing this process: technological centres and other analogical governmental establishments conduct consultations, realize selection of literature about corresponding technological information, private companies and organizations render consulting services.

The interconnection of external and internal mechanisms of managing processes of economic technologies transfer provide increased level of efficiency of using this instrument at industrial enterprises. In our opinion, such a mechanism should be based on three compounds: technological audit, knowledge base necessary for enterprise, evaluation of investments in efficiency of applied and perspective technologies, which would pay attention both to finance flows, related to new technologies realization, and to opportunity of their further modification.

The result of technical audit and search of solutions on technology transfer would determine, on the one hand, output parameters of project, level of competitiveness of new products, product life cycle, and, on the other hand, capital and operative budgets of project, which would allow to refine the necessary volume of financing innovational project [12].

Thereby, it is possible to conclude, that the search for the most economical methods of innovational activity of enterprises of the real sector of the economy allows realizing development programs in order to provide competitiveness of enterprises and demands qualitatively new complex approach to formation of portfolio of innovational projects, which would provide close interconnection between evaluation of technical and technological state of manufacture, evaluation of prospects of technological development and consideration of risks of innovational development.

Offers, directed on overcoming of obstacles, which hinder the development of innovations at industrial enterprises, include: formation of corporative informational system, which would provide accumulation, collection, processing, keeping and supplying information in the field of innovations and technological development; improvement of legislative and regulative acts, protecting intellectual property in industrial sector.

5. Conclusion

The increase of the level of innovational activity of the enterprises of the economy real sector encourages growth of their competitiveness, which under contemporary economic conditions is directly connected to innovations, as formation of long-term competitive advantages is provided due to creation of effective informational system, which, on the one hand, considers changes of the environment and, on the other hand, provides interaction between all manufacturing processes of an industrial enterprise.
Innovation oriented development of industrial enterprises depends on creation and development of new technologies, realization of which would provide competitiveness of such enterprises on a long period of time. A significant level of expenditures, necessary for purchasing and realizing process innovations, can be reduced due to the decrease of risk of decision-making. In our opinion, solving the problem of innovational projects portfolio formation is especially important, because it allows providing enterprises to ground their significance for achieving strategic targets of development and to bring them in correspondence with solution for a problem of supporting necessary level of competitiveness in long-term perspective.

Solving this problem requires the interaction between enterprise and existing innovational centres on transfer of technologies and their commercialization, which could help the enterprises to find partners to achieve projects and enter new markets, detecting potential demand on new technologies, carrying out technological marketing, introducing innovational project ideas more purposefully and effectively. All this would increase competitiveness of enterprises of the real sector of the economy.

All the above-mentioned refer to the high probability of perspective innovational development of enterprises in the given real sector of the economy in the case of providing the necessary state support.

6. References


