**MECHANISMS OF SCIENTIFIC END RESEARCH ACTIVITIES
ENHANCEMENT OF ORGANIZATIONS**

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Abstract

The urgency of the problem being investigated is caused by the issues of enhancing the scientific end research activities of organizations, since the methodological level of its development does not meet the requirements of the system reflection of objective processes and does not fully reveal their essence. An analysis of conceptual views on this issue points to a multitude of arguments, which indicates a divergence of theoretical positions. The main results of the article will contribute to the formation of tools for testing the most progressive innovations aimed at improving the efficiency of innovative activities of organizations and expanding their market positions in the domestic and international markets. The materials of the article can be used to improve the state policy in the field of regulation of scientific end research activities, innovation processes, as well as in teaching courses in economic theory, management theory and innovation management.

Key words: innovation, innovation activity, science, knowledge-intensive production, R & D, high-tech production.

The most promising way to achieve a high level of technological development is the creation of integrated production and economic systems of the innovative type.

This way of technological development of the domestic industry is complicated by low investment activity, the reasons for which are known.

Another way chosen in the context of limited financial resources is the introduction of new technologies as part of the implementation of innovative development programs at the level of integrated corporate structures. However, when choosing this way, the problems of creating complex production and economic systems of the innovative type, capable of providing a continuous innovative process of reproducing high technologies at all stages of processing initial resources into finished products, will not be solved.

Two levels can be distinguished in the development of mechanisms for enhancing innovation: macro and micro levels.

In the first case, the state innovation programs are the main toolkit, contributing to the growth of production and economic growth, increasing the degree of

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introduction of innovative technologies in individual industries or enterprises, and affecting the development of related industries [1].

The effectiveness of the implementation of innovative programs depends directly on the degree and direction of state support for the production and technological development of industries.

Any form of state support contributes to the effectiveness of the innovation program.

This could be financing of R & D, ensuring the conditions for the purchase of foreign technologies or high-tech equipment, ensuring preferential credit conditions for investments, assistance in expanding the market opportunities, supporting related industries, creating the prospect of implementing macro-technologies.

At the micro level, it is necessary to proceed from the fact that the introduction of innovation depends on the features of the innovation process.

Global and domestic experience shows [1] that one of the most effective ways to preserve and enhance scientific and technological potential is the integration of scientific, industrial structures in the form of large organizations.

Practice shows that the organization of national centers for the development of high-tech products is a strategic step in the development of high-tech manufacturing sector.

If we consider the foreign experience in the development of innovation activities in the countries of Western Europe, the USA and Japan, then we can note the tendency of such organizational and managerial structures to create high-tech products for which is characterized:

- first, the concentration of basic research, mainly in the field of higher education;

- second, the concentration of applied scientific and technical activities mainly in industrial enterprises and the strengthening of this process as competition intensifies in sales markets, which allows to overcome the isolation of R & D from production structures.

The practice of developed countries has shown the effectiveness of such organizational decisions in the field of R & D, however, its blind copying is problematic for the following reasons:

- the main resource potential for creating innovations for production has traditionally been formed and is now actively attached to applied research institutes and academic institutions;;

the state of the corporate sector does not suggest the possibility of the emergence in it of tendencies of organizing its own innovative potential, at least at the next stage of their market evolution.

The process of creating innovation is constantly renewing and focused on the characteristics of an unstable market demand [2].

This implies efficient and flexible management in the following areas:

strategic control over the development of the situation “innovation - market”, which allows to determine the main points of concentration of resources and capital of the company;

development of the project management system, coordination and control over their portfolio in accordance with the adopted corporate strategy and time schedules;

constant support for an active innovation strategy, characterized by a response to the demands of consumers of innovations, as well as the search for new scientific ideas and promising developments;

creation of an innovative managerial climate, which predetermines a continuous search for a new one, cultivates an objective approach in the investment strategy;

maximum decentralization of administrative authority while maintaining integration links.

Based on the above prerequisites for the division focused on the creation of innovation as an element of a commercial product, it is possible to propose a monostructure option with a single resource and multidimensional management potential that makes it possible to manage it as an interconnected and integrated whole.

The proposed structure may contain technological chains in the form of profit centers serving the respective strategic direction of activity.

Management of technological chains in the proposed structure is intended to ensure the implementation of the following strategic functions:

- search for new and development of existing markets for innovations included in its strategic area of responsibility;
- development of strategic plans for the units;
- direct supervision of the process of creating innovations;
- disposal of material, labor and financial resources of the units;
- full responsibility for the quality and timing of the creation of innovations;
- ensuring the company's planned financial results from the activities of the units.

An important component of innovation activity should be the search for new technological solutions that are outside the areas of interest of existing technological chains.

Such activity creates a scientific and technical reserve of the organization, expands its potential market in accordance with the resource potential.

As a rule, it does not bring direct commercial results and is carried out at the expense of investments.

According to well-known terminology, this activity should be classified as "research-oriented" and fulfill the function of developing a specific strategic task for the economy.

Thus, the organizational structure of the innovation center can be designed as a monostructure consisting of five blocks:

- management of the corporate innovation center (CIC), carrying out the strategic development of the corporation and operational control over the realization of the existing potential in the form of income;
- strategic directions for the creation of innovations as a commercial product, endowed with resources, bearing strategic responsibility within the zones assigned to them and being centers of profit;

- a block that includes production and commercial structures that do not bear strategic responsibility, but are profit centers with resources assigned to them;
- matrix substructures of projects focused on research on the creation of a scientific and technical reserve and the implementation of administrative projects (for example, the development of an ICS (Integral Control System), a quality management system, etc.);
- units that perform the function of supporting (securing) technological processes, profit centers and project substructures (finance and accounting, personnel management, corporate quality management system, marketing support, maintenance of engineering infrastructure).

The introduction of new management and structural decisions should be carried out on the basis of calculations of the effectiveness of implementation in accordance with the innovative strategy of the organization's development [3].

The selection of research and development priorities plays an important role in the innovation strategy.

Priority areas of research and development are implemented in the form of large research projects on the creation, development and dissemination of technologies that contribute to fundamental changes in the equipment of technological processes, as well as on the development of basic research, scientific and technical support of various investment programs, and strengthening international relations.

Specific priority areas of research in the field of goods and technologies are detailed in the list of critical technologies.

These innovative topics are interdisciplinary in nature and are essential for the development of many areas of science and technology. When selecting critical innovation topics, the organization's management should take into account their impact on the competitiveness of products and services, performance, improvement of the environmental situation, etc.

It is necessary to pay attention to the fact that scientific and technical developments and innovations as a result of practical application turn into scientific and technical innovations.

Scientific and technical developments and inventions are the application of new knowledge for the purpose of their practical application, and scientific and technical innovations (STI) are the materialization of new ideas and knowledge, discoveries, inventions and scientific and technical developments in the production process with the aim of commercializing them to meet certain consumer requests.

The indispensable properties of innovation are scientific and technical novelty and industrial applicability.

Commercial feasibility in relation to innovation acts as a potential property, to achieve which requires some effort.

Scientific and technical information characterizes the end result of the research and production cycle, which acts as a special product - scientific and technical products.

Thus, innovation as a result should be considered as a part of the innovation process.

For innovation, three properties are equally important:

- scientific and technical novelty;
- manufacturing applicability;
- commercial realizability.

The absence of any of them adversely affects the innovation process.

The realities of a market economy define innovation as an economic necessity realized through the needs of the market.

In this regard, you should pay attention to two points:

- “materialization” of innovations, inventions and developments into new technically advanced types of industrial products, means and objects of labor, technologies and forms of production organization,

- “commercialization” that turns them into a source of income.

Therefore, scientific and technological innovations should:

- a) have a novelty;
- b) meet the market demand and bring profit to the manufacturer.

Since the task of planning is to influence the scientific and technical policy, its main influence is realized through decisions relating to the selection of projects and the allocation of resources.

It is necessary that an integrated decision-making process from top management to R & D management can be integrated into a coherent operational decision-making model [4].

There are three main information inputs when building an R & D strategy:

- assumptions of the economic situation
- analysis of the company's capabilities
- corporation strategy, the selection of projects will act as a consequence of the scientific and technical strategy.

Thus, the formulation of a strategy is an iterative process. It is impossible to ignore the amount of resources that can be allocated for R & D, because different strategies require different amounts of costs.

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