

SYSTEM MANAGING INNOVATION TECHNOLOGIES OF ENTERPRISES

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Abstract

The issue of the formation of a management system for innovative technologies has been investigated. The peculiarities of the formation of the functional scheme of the innovation cycle at the enterprise are considered. The necessity of development of marketing strategy of promotion of innovations on the market is proved. The modern organizational forms of implementation of innovative technologies are offered. A new approach to the organization of innovation activity in the conditions of entrepreneurship, which would contribute to the significant development of the economy in Ukraine, the exit of the state from the economic and social decline, increase of the efficiency of use of all production and natural resources, preservation of the environment, increase in the profitability of production, is outlined.

Keywords: system, management, innovation technologies, enterprise, strategy.

Introduction

Topicality. At the current stage of development of the world economy, economic growth is characterized by the leading role of scientific and technological progress and intellectualization of the main factors of production. In the global economic competition, countries that provide favorable conditions for scientific research and scientific and technological progress will benefit. At the same time, experts at all levels of management admit that in Ukraine today there is no legally and methodically executed effective mechanism for managing innovative activity in the national economy, although the first attempts are already being made.

In Ukraine, there are objective prerequisites for the formation of an innovative economy. Ukraine's rapid exit from the crisis is quite possible through the realization of its benefits, which should be complemented by active state policy.

The problem of creating an economic mechanism that allows you to generate, reproduce and use scientific and technological innovations in order to increase the pace of economic development and quality of life in our country is becoming extremely relevant. Its solution is really possible only if there is an adequate presentation of the main characteristics of the innovation processes, their driving forces and patterns. Domestic scientists Y. Bazhal, S. Kozachenko, M. Krupka, A. Paskhaver, V. Alexandrova, as well as foreign authors - J. Shumpeter M.Kondratyev, L. Blyakhman - were engaged in the research of innovations as a factor of economic growth, driving forces of development of innovation activity, S.Valdaytsev, S.Glaziev. D. Lvov, P. Drucker, G. Mensch, B. Santo, B. Tviss, and others.

Objectives of the study: to consider the concept and formation of the management system of innovative technologies.

Aim: to explore a new approach to organizing innovation in entrepreneurship.

Objectives:

- to reveal the essence and composition of innovative technologies of the enterprise;
- to determine the peculiarities of the formation of the functional scheme of the innovation cycle at the enterprise;
- prove the necessity of developing a marketing strategy for promoting innovations on the market;
- identify organizational forms of implementation of innovative technologies.

Objects of research: innovative technologies.

Methods of research: analysis, synthesis, comparison, generalization, comparison. The research was based on the provisions of the dialectical method of knowledge of processes and phenomena in their interaction and development.

Functional Scheme of the Innovation Cycle

Innovation process is associated with the creation, development and dissemination of innovations. The innovation process is the transformation of scientific knowledge, scientific ideas, inventions into physical reality (innovation), which changes society. The basis of the innovation process is the creation, implementation and dissemination of innovations, the necessary properties of which are the scientific and technical novelty, their practical application and commercial realization in order to meet new social needs.

The development of the innovation process is influenced by:

- the state of the environment in which it passes (type of market, the nature of competition, the practice of state regulation, the level of education, organizational forms of interaction between science and production, etc.);
- the state of the internal environment of individual organizational and economic systems (financial and logistical resources, application of technologies, connection with the external environment, etc.);
- specificity of the innovation process as an object of management.

The effectiveness of the innovation process is determined only after the introduction of innovation, when it turns out that it meets the needs of the market [Гайдэбрыс А.О., 2009].

Innovation process - the process of developing, manufacturing and promoting innovations in the market.

The main sources of ideas for innovation are:

- results of consumer needs analysis;
- sales staff and business dealers;
- results of analysis of developments in the field of science and technology (patents, scientific publications, reports on research work, etc.);
- development of the scientific and technical workers of the enterprise itself (inventions and innovations);
- results of the analysis of competitors' activity, including analysis of their advanced developments;
- results of situational and simulation modeling of consumer behavior in the present and future;
- the results of the analysis of trends in the development of scientific and technological progress, as well as technological, economic, social, political, cultural, legal, environmental, demographic and other components of the economic environment.

Methods of generating ideas of innovations (intuitive and orderly):

- "brainstorming" (the generation of ideas by a group of people to solve the problem, in the prohibition of criticism of ideas, with their subsequent assessment);
- synectics (the orientation of the spontaneous activity of the intelligence of the group of experts, with the help of various analogies, to study and solve the problem),
- elimination of [deadlock] situations (finding new directions of solutions, if the traditional ones have not yielded results);
- morphological maps cards (expansion of the search area for the solution of the problem) [Волков ОИ, 2004].

At the stage of selecting the ideas of innovation from the diversity of ideas proposed, select ideas that are acceptable for a particular enterprise. Perspectives of realization of ideas of innovations

directed on development of existing market opportunities of innovative development are checked. Verification can be performed based on:

- assessing the conformity of ideas with innovations to requirements that were found to be adequate in similar situations;
- assessment of the conformity of ideas of innovations with pre-discussed requirements;
- comparison of ideas of innovations according to the established list of criteria and their indicators and the choice of optimal ones.

Development of a Marketing Strategy to Promote Innovation on the Market

Provides serious market research and ends with the development of a marketing strategy to promote innovation on the market. The main instrument of this analysis is market segmentation.

Evaluation with a view to selecting the most acceptable of a number of alternative innovations is performed on the following groups of criteria:

- market capacity;
- potential life cycle of new products;
- actual and potential competition.

The marketing program consists of: a list of benchmarks; analysis of the current marketing situation in the market and prospects for its development; analysis of market opportunities and threats, as well as strengths and weaknesses of the enterprise; formulation of goals and objectives; marketing strategies, with the definition of target markets, specific measures of the marketing complex and the costs of their implementation; marketing budget (revenue and expenditure analysis, performance appraisal); order to monitor the implementation, adjustment and review of marketing program activities.

At the stage of assessing the opportunities and economic feasibility of achieving the goals of the company, set out in the marketing program, the adequacy of the production and sales potential of the enterprise for realization of the goals set out in the marketing strategy, as well as the economic efficiency of its implementation is determined.

Valuation is performed according to the following criteria:

- intellectual and scientific and technical opportunity to implement innovation in a new product that meets the needs and demands of consumers;
- production opportunity to prove the idea of innovation to a commercial product;
- marketing opportunities for promoting innovation on the market and bringing it to consumers;
- resource sustainability of the innovation project: informational, raw material, financial, etc;
- sources of investment;
- the degree of risk and the ability to prevent, reduce or compensate for it;
- the cost of developing, manufacturing and promoting innovations on the market;
- profitability.

Modern Organizational Forms of Implementation of Innovative Technologies

In the implementation of the innovation process, an important role is played by economic-managerial and socio-cultural, scientific and project activities. And through the introduction of innovation in their field of activity, it is possible to quickly implement the innovative processes in the production sphere.

The foreign and domestic experience of the work of scientific and innovative organizations makes it possible to classify them depending on the nature of the sphere of activity on:

- governance (ministries, departments, local authorities and self-government, non-commercial, financed and controlled by the government and engaged in research activities of the social and administrative functions of the state);

- entrepreneurial sphere of activity - organizations, enterprises, firms whose activities are related to the production of products and the provision of services for the purpose of sale (including state-owned enterprises);

- higher education and science - all universities regardless of sources of funding or legal status; scientific research, experimental stations and clinics that are associated with or controlled by universities; organizations serving universities that are part of higher and secondary education;

- private non-profit (non-profit) sphere of activity - professional unions and societies, associations, public and charitable organizations, foundations; private individual organizations. Proceeding from the above spheres, the peculiarities of organizational forms of innovation activity arise: some are financed at the expense of the state budget, while others - at the expense of individual enterprises - the results of their entrepreneurial activity [Йохна М.А, 2005].

Venture company - an enterprise whose products are associated with the risk of innovation of different types: in the field of scientific research, technology of creating new products, organization of production, marketing. Venture company serves as the initial stage of development of the product, engaged in the selection and development of a scientific or technical idea, its testing, the creation of samples and models for their subsequent transfer to the stage of industrial production. Very often, with the end of work on this product, the firm ceases to exist.

Venture companies do not return the funds invested by their investor and do not pay interest on them. But the investor gets the right to all patented and unpatented innovations and a constituent profit from risky enterprises in the event that they succeed. Most venture capital firms exist in the form of limited liability companies, their purpose is to obtain from various financial institutions, funds for the creation of risky enterprises. They usually have a small number of employees. Such firms are created directly by entrepreneurs, managers, businessmen. They can be separate branches of large companies and financial groups.

Prerequisites for the creation of venture companies should be the following components:

- innovative ideas – either new technology, new product;

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- risk capital to fund research on this idea.

The advantages of venture companies are narrow specialization, the concentration of material and technical and financial resources in the chosen direction of research; possibility of quick reorientation to other directions [Колодинський С.Б., 2004].

In addition to venture companies, the current low level of state science provision from one side, and the development of market economic relations in the country - on the other, cause the need to create new forms of scientific and production activities, built on a commercial basis, such as technical parks, technopolises and others.

The following centers are the means of effective introduction of innovation: technoparks, technopolises, firms-incubators, scientific industrial complexes (consortia), clusters.

Technopark is a territorial separated complex, founded on the basis of a leading university, which includes scientific institutions, industrial enterprises, information, services and exhibition complexes, comfortable living and living conditions

Main goal of technoparks - commercialization of scientific and technical activities, ensuring the rapid advance of scientific achievements in the industrial sphere - allows, in the context of the crisis situation in higher education in Ukraine, to provide scientists with creative work, high enough wages.

Creation of technology parks solves the following issues:

- accelerates the processes of transferring the results of fundamental and applied scientific research into production;

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- provide development of innovative entrepreneurship;
- promote the attraction of industrial and bank resources in the innovation sphere [Івашко І.М., 2009].

In order to provide effective work of technology parks for them, a preferential (preferential) regime is created, namely:

- new firms that are emerging in the industrial parks are exempted from payment of registration fee;
- are exempted from payment of income tax in the first 2-3 years, and in the next 2-3 years they pay it at rates reduced by 50%;
- funds sent by firms to the development of the technology park are excluded from taxable profits;

- firms that are part of the technopark are exempt from paying the green tax and property tax.

Technopolis - a structure that is similar to a technopark in its activities, however within a specific small town (settlement), whose development is provided through technopolis.

In addition to technology parks and technopolises, the market operates so-called business incubators, engaged in the implementation of any project, which is the opportunity to profit.

The firm-incubator is an organizational structure whose purpose is to create favorable conditions for the effective operation of newly created small innovative firms that implement new scientific ideas-innovations. It can provide such firms with premises and necessary equipment for a certain period, providing them with advice on economic and legal issues on a preferential basis, to organize information and advertising facilities. The incubator also conducts an examination of innovative projects (scientific, technical, economic, commercial), conducts a search for investors and gives them certain guarantees, provides the opportunity to use their research production, and this helps small innovative enterprises to survive more easily within the limits of incubators than outside.

Abroad, where incubators are widespread, they come in three types:

- 1) non-profit - those who work with the attraction of funds from local authorities;
- 2) profitable - those who do not provide privileges when renting their property;
- 3) branches of higher educational establishments, which provide effective support to enterprises that are going to master high-tech products.

Participants of the innovation structure can be any enterprises, organizations and institutions, regardless of ownership, namely:

- research and design organizations that work on the profile of the innovation structure;
- educational institutions that work on the profile of the innovation structure or specialize in the training and qualification of specialists in the basic specialties of the innovation structure;
- production enterprises, which implement the results of research and development work and inventions;

- innovation funds, commercial banks, insurance companies;
- business entities providing legal services, services in the field of scientific and technical expertise, management, marketing, transport, advertising, publishing and information activities;
- foreign legal entities, international organizations, as well as foreign citizens (unless otherwise provided by the legislation of Ukraine). Innovative structures are created for the purpose of intensification [Микитюк П.П., 2007].

Such an approach to the organization of innovation in the conditions of entrepreneurship would contribute to the significant development of the economy in Ukraine, the withdrawal of the state from the economic and social decline, increasing the efficiency of the use of all production and natural resources, preserving the environment, and increasing the profitability of production.

Conclusions

Innovative technologies - radically new or improved technologies that significantly improve the conditions of production or themselves act as a commodity. Usually have low capital intensity. The emergence in the world market of new technological products and solutions stimulates the domestic industry of industry to actively consider the possibilities of their practical application. This process requires state support at all levels of economic activity, which requires continuous improvement of the system of methods and means of management of the scientific and technological process.

The use of the management of system approaches to management of innovative technologies of the enterprise will increase the efficiency of management of innovative activity of an industrial enterprise, analyze the situation and give a scientifically sound assessment of the management decisions taken.

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