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FUNDAMENTAL PRINCIPLES OF PLANNING INNOVATIVE
ACTIVITIES AT THE ENTERPRISE

Serhii Dolynskyi, Yaroslava Slyvka, Maria Shcherban. "Fundamental principles of planning
innovative activities at the enterprise ". This article defines and establishes the essence of the concept of
“innovation activity” and also identifies the stages of the innovation process, which are four in total.
The types of planning and peculiarities of their application to innovation activities are considered. It is
determined that the types of plans differ in terms of objectives, subject matter, level, content and planning
period. According to the target orientation, there are strategic, current and operational planning of innovations.
Strategic planning as an element of strategic management is to define the mission of the organization at each
stage of its life cycle, to form a system of goals and a strategy for behavior in the innovation markets.
The author summarizes that the main condition for the formation of the innovation market is the volume
of investments in both scientific and scientific and technical activities. Given the 3-5-year duration of the
innovation process, long-term and medium-term investments play a key role, providing financing for
innovations throughout their entire life cycle.

It is determined that innovation activity is aimed at the practical use of scientific, scientific and technical
results and intellectual potential in order to obtain new or radically improved products, production technology
and satisfaction of effective consumer demand for high-quality goods and services, and improvement of social services.

Keywords: innovation, innovation activity, enterprise, competitiveness, innovation planning, innovation development.

Sergii Dolyanskyi, Yaroslava Slivka, Maria Zhereba. «Fundamental principles of planning innovative activity on the enterprise». In this article, the nature of the concept of “innovative activity” is defined, as well as the four stages of the innovative process. The issue of studying the theoretical foundations of planning innovative activities at an enterprise is the subject of the works of many domestic and foreign economists: V.O. Vasylenko, S.M. Illiashenko, O.V. Kovalenko, P.M. Koiuda, Y.V. Lavrova, S.V. Lehominova, I.A. Sheiko, O.I Shamanska, O.H. Spykuliak and others. However, some aspects of planning require clarification and further development.

The formulation of the goals of the article is to consider and analyze the fundamental principles underlining the planning of innovative activities at the enterprise. Innovation activity at an enterprise is subject to the works of many domestic and foreign economists: V.O. Vasylenko, S. M. Illiashenko, O.V. Kovalenko, P.M. Koiuda, Y.V. Lavrova, S. V. Lehominova, I.A. Sheiko, O.I Shamanska, O.H. Spykuliak and others. However, some aspects of planning require clarification and further development.

Innovation (eng.) is formed from two words...
Latin "innovatio" (novelty, innovation) and the English prefix "in", which means "into", "introduction". Therefore, in English, "innovation" means: the introduction of something new, renewal [1].

Innovation is the use of the results of intellectual work, technological developments aimed at improving socio-economic activity in a particular area of social activity (production, economic, legal and social relations, science, culture, education, etc.), i.e. the use of something new, progressive, promising. However, this new, progressive, promising does not always appear on the surface with full brightness. It needs to be identified, perceived, verified, proven when organizing financing of innovative projects, and their attractiveness to investors needs to be determined. Innovation, an innovation project is a model of future innovation, each innovation should work for the future, the progressive development of a particular enterprise, industry, and the national economy as a whole [1].

Innovations are the result of innovation processes, and their introduction into business practice is defined as an innovation, i.e. from the moment of adoption for dissemination, the innovation acquires a new quality and becomes an innovation.

Thus, innovation is an innovation related to scientific and technological progress (STP) and consisting in the renewal of fixed assets and technologies, improvement of management and economy of the enterprise.

We consider it necessary to analyze the essence of the innovation in more detail (Tab. 1).

<table>
<thead>
<tr>
<th>Source</th>
<th>Interpretation of the essence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law of Ukraine &quot;On Investment Activity&quot;</td>
<td>Innovative activity – production and sale of completely new types of equipment and technologies; gradual cross-industry and structural changes; implementation of long-term scientific and technical programs with long investment return periods; promotion of fundamental research, which contributes to qualitative changes in the state of productive forces; development and implementation of new resource-saving technologies to improve the social and environmental situation.</td>
</tr>
<tr>
<td>O.H. Spykuliak</td>
<td>Innovative activity is a type of activity that allows you to create fundamentally new products, new services, based on scientific research and lead to something that does not exist.</td>
</tr>
<tr>
<td>P.M. Koiuda I.A. Sheiko</td>
<td>The innovative activity of the enterprise is an activity aimed at the development, use and commercialization of scientific and technical and technological results (innovations) of the innovative production process, by expanding the terminology (range), introducing the latest technologies (management or improvement).</td>
</tr>
<tr>
<td>S. M. Iliashenko</td>
<td>Innovation is the process of creating, implementing and disseminating an innovation.</td>
</tr>
</tbody>
</table>

Source: based on [6, 11, 15, 16].

In market conditions, innovations cover the entire economy, including productive forces (means of production, training of employees) and production relations (forms and methods of management, division, specialization and cooperation of labor).

Innovative activities also include long-term work on the creation and implementation of innovative projects with the participation of design institutes and research centers on the scale of regions, industries or the country [2].
In everyday practice, the concepts of innovation, innovation, innovation, innovation are usually equated, which is quite understandable. Any inventions, new phenomena, types of services or methods will be recognized only when they are adopted for distribution (commercialization), and in this new capacity they will act as innovations.

Based on the definition of innovation and the challenges faced by innovations as compared to "ordinary" investment projects, the implementation of innovations has the following fundamental features:

- higher degree of uncertainty of project parameters (projected results, development and implementation timeframes, revenue expenditures), which significantly reduces the reliability of the preliminary financial assessment of the project. This requires additional selection criteria based on the collection of a large amount of necessary information in order to avoid additional work that would increase project development costs;
- focus on long-term results, which requires a strict approach to forecasting results and taking into account the time factor;
- the need to engage highly qualified, experienced researchers;
- the possibility of terminating the project without significant losses of material and financial resources. There may be various reasons for terminating the project, such as the inability to further finance the project, identification of miscalculations in the effectiveness or feasibility of the innovation, etc;
- high probability of obtaining higher project results that were not expected but have commercial appeal. This makes it possible to count on rapid diffusion of the project and potentially high profits [3].

Taking into account these fundamental features of the development and implementation of innovations, the innovator company assesses its production (resource), financial and economic capabilities and selects the most attractive innovation project from its point of view. It analyzes market conditions, diagnoses production capacities and product range, administrative, managerial, scientific and technical personnel of the company.

The innovation option required by the company must meet several key criteria, the most important of which are market potential and expected profit.

Based on such requirements, in the current environment, when computer calculations of project attractiveness are performed, American firms use up to 30 project selection criteria. The choice is made on the basis of a scoring system for evaluating the proposed results, taking into account the weighting coefficients of each of the criteria [4].

When determining the attractiveness of a project, an investor attaches great importance to the following financial and economic factors: the amount of investment, payback period, profitability and efficiency, and net income. These indicators are of particular importance when attracting a strategic investor, a financial institution that is able to finance an innovation.

However, there are cases when financial and economic factors play a secondary role rather than the main one: for example, when implementing environmental innovation programs or programs in cultural and educational activities, which are almost always unprofitable.

Thus, the investment attractiveness of an innovation project depends on both financial and economic factors and extra-economic factors. In all cases, financial policy in innovation is related to capital mobilization and, based on the life cycles of innovations, at the initial stage of innovation it is necessary to provide investors with the necessary capital, since the innovation cycle is unprofitable. After mobilizing capital for innovation, it is necessary to ensure the deployment of scientific developments in order to obtain scientific and technical information. This is followed by the stage of materializing this information, developing a technological
process, creating prototypes, and bringing them to mass production. When an innovation enters the market, it becomes profitable and reaches maturity. At the stage of maturity, the enterprise receives maximum profits and has the opportunity to ensure the accumulation of capital that cannot be used in innovative activities [5].

Innovative activity means the activities of the team aimed at ensuring that scientific and technical ideas, inventions (innovations) are brought to a result suitable for practical application and sale on the market in order to meet the needs of society for competitive goods and services. Article 3 of the Law of Ukraine "On Investment Activity" defines innovation activity as "one of the forms of investment activity" carried out with the aim of introducing the achievements of scientific and technological progress into production and the social sphere. This activity includes [6, 7]:

- production and dissemination of fundamentally new types of equipment and technology;
- progressive cross-sectoral structural shifts;
- optimization of the innovation project;
- implementation of long-term scientific and technical programs with long payback periods;
- funding of fundamental research to implement qualitative changes in the state of productive forces;
- development and implementation of new resource-saving technologies designed to improve the social and environmental situation.

The core of innovation activity at an enterprise is the development (commercialization) of new types of products or methods of their production, delivery and sale. When determining the areas of innovation activity, the company's management decides whether to focus on product or technological innovations. At the same time, it is important who is the "initiator" of the innovation: a consumer, a supplier or a competitor.

Innovative activity in its entirety is complex, systemic and covers such activities as the search for ideas, licenses, patents, personnel, organization of research, engineering and technical activities that combine invention, rationalization, design, creation of engineering and technical facilities, information and marketing activities. All this creates progressive conditions for innovative development and intensification of innovation processes. In other words, innovation activity is considered as a set of works performed by certain organizational structures from the inception of an idea, its development and commercialization in a competitive environment [8].

It should be noted that innovation activity is influenced by a number of factors that can be divided into the following groups:

- technical and economic;
- organizational and managerial;
- legal;
- social and psychological.

At the same time, the impact of these factors can be both stimulating and restraining [9].

The implementation of innovation management in general includes:

- development of plans and programs of innovation activities;
supervision of the development of new products and technologies, their implementation;
- consideration of programs for the development of new products and technologies;
- ensuring a unified innovation policy and coordination;
- providing financial and material resources for innovation programs;
- approval of temporary task forces for comprehensive solution of innovation problems — from idea to mass production [9].

At the present stage of economic development, innovations are becoming the main means of maintaining competitiveness and are becoming an integral part of business activity. Management of innovations is carried out in parallel with the management of existing traditional production. However, the methods of innovation management differ from the methods of traditional production management, since innovation processes are aimed at creating previously non-existent products, qualitative renewal of productive forces and production relations [10].

It should be borne in mind that time is constantly depreciating existing products and technologies, so to avoid a technological lag, innovations should be predicted and implemented on a continuous basis, not just when critical circumstances arise. Product, technological and organizational innovations are interrelated, so they should be implemented in a comprehensive manner. Thus, the main principles of innovation management are:

- principle of continuous forecasting of the innovation situation;
- principle of dynamic prevention of technological lag;
- the principle of systematic introduction of innovations in interrelated areas of business activity;
- principle of combining investments with innovations;
- the principle of combining financial and engineering analysis of the effectiveness of innovations.

If the money for innovations is taken from the budget, any innovations with minimal profit are beneficial to the enterprise [11]. In the case of self-financing, the money for the implementation of research and development is taken from the working capital of the enterprise, so the innovation manager must look for convincing arguments, justify the need for innovation and appropriate capital investments in the future development of the enterprise to maintain its worthy place in the market of goods and services [12].

The period from the inception of an idea, its development to the implementation of an innovation is called the innovation life cycle. Taking into account the sequence of activities of the innovation life cycle, all these activities are considered as an innovation process.

The main product of the market of innovations is a scientific and technical result — of intellectual activity, which is subject to copyright, registered in accordance with the current international law and current legislation of Ukraine [13].

Market development and competition not only stimulate, but also force commercial organizations to participate in the formation of the market for innovations in the following areas:

- development of personal scientific, scientific, technical and experimental base for conducting research and development;
- conducting research on a cooperative basis with other organizations;
- placing orders for research or experimental work with another organization;
- acquisition of licenses for the right to produce goods or services;
- purchase of a finished product, technology, know-how and other intellectual property;
- acquisition of intangible assets through the issue of shares, bonds, foreign capital and organization of joint production.

The main condition for the formation of the innovation market is the volume of investments in both scientific and technological activities. Given that the
innovation process takes 3-5 years, long-term and medium-term investments play a key role in financing innovations throughout their life cycle.

Innovative activity is aimed at the practical use of scientific, scientific and technical results and intellectual potential in order to obtain new or radically improved products, production technologies and meet the effective demand of consumers for high-quality goods and services, and improve social services.

The innovation process can be viewed from different perspectives and with varying degrees of detail:

- parallel and sequential implementation of scientific and technical innovation, production activities and marketing;
- in the form of temporary stages of the innovation life cycle from the emergence of an idea to its development and implementation;
- as the process of financing and investing in development for the introduction and distribution of a new type of product or service.

Thus, the innovation process consists in obtaining commercialization of inventions, new technologies, types of products and services, solutions of organizational, technical, economic, social and other results of innovation activity [14].

The innovation process is carried out in four stages (Tab. 2).

### Table 2. Stages of the innovation process

<table>
<thead>
<tr>
<th>Stages of the innovation process</th>
<th>I. Basic research in academic institutes, higher education institutions, and specialized laboratories. Budgetary funding on a non-refundable basis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. Research of a prescriptive nature. They are conducted in all scientific organizations and are funded both from the budget and at the expense of customers.</td>
<td></td>
</tr>
<tr>
<td>III. Research and development and experimental developments are carried out. They are carried out in subdivisions of research institutes, specialized laboratories, and subdivisions of large industrial enterprises. They are financed both from the state budget and at the expense of customers, as well as at their own expense.</td>
<td></td>
</tr>
<tr>
<td>IV. The commercialization process is carried out, starting with the introduction into production, market entry and sale of the product.</td>
<td></td>
</tr>
</tbody>
</table>

Source: based on [14].

Late implementation of innovations leads to a "futuroshock" effect, i.e. a situation where circumstances prompt drastic changes in a short period of time with high resource costs and extreme stress. This can result not only in loss of profit, but also in the destruction of an enterprise or organization [15].

The gradual exhaustion of the potential of any idea and innovation based on it is objective and is caused by obsolescence. Therefore, it is necessary to reserve funds for innovations in advance from current profits, look for other sources of financing innovations and constantly worry about the
birth of new ideas for the development of the enterprise. Despite the fact that identifying the limit of technology potential is a complex process, depending on the efficiency of investment in a particular industry, there comes a time when the return on innovation is equal to the average return on investment.

The period of decline in the effectiveness of innovations varies widely and depends on the type of innovation and its potential. The best innovations are those that are foreseen already in the enterprise project and provide fundamental changes in the technological process or launching knowledge-intensive products with a high level of competitive ability.

The given evidence convinces of the need for constant updating of products and production in order to avoid the threat of loss of competitiveness of the enterprise and the already mentioned effect of future shock. Any enterprise that wants to survive in market conditions must have a recovery mechanism and innovative management procedures at its disposal [16].

It should be taken into account that innovations are always associated with risk, but their rejection is even more risks. Very often, the need to update products or technology arises precisely when the company’s financial results look good and a false impression is made that the company can continue to exist in its traditional form for a long time. The task of the innovative manager is to overcome this contradiction, to convince the management and the entire team of the need for changes, if there is an opportunity to ensure their significant growth in the future due to a temporary decrease in income. The diminishing return on investment in the existing traditional technology is initially perceived as insignificant, but if competitors make a breakthrough in a new technology, consumers can very quickly give preference to the competitors' new products [17].

The dynamics of production renewal is that each technology slowly gathers pace at first, accelerates the movement. And then it gradually loses its potential, as more advanced technologies appear. Therefore, it is necessary to part with familiar products and technologies precisely when they, as it seems from a purely financial point of view, bring the greatest profit.

Simultaneously with the diagnosis of the limit of effectiveness, the idea of a new technological breakthrough should be born. The speed of technological gaps depends on the specifics of the industry. For example, Japanese companies spend 4-5 months on the production of a new model of color television from the realization of the need for it to the moment of its realization in large quantities. To accelerate the process of innovation, operational cooperation of different firms, each of which specializes in the development and production of a part of the final new product, can be used.

Innovations are any technical, organizational, economic and managerial changes different from the existing practice in this organization. They may be known and used in other organizations, but for those organizations in which they have not yet been mastered, their implementation is a new matter and can lead to considerable difficulties. Organizations have different receptivity to innovations, their innovative potential significantly depends on the parameters of organizational management structures, professional and qualification composition, industrial and production personnel, external conditions of economic activity and other factors.

Conclusions. Thus, having considered the essence and object of innovation activity, we can draw the following conclusions. Innovations are the result of innovation processes, and their introduction into business practice is defined as an innovation, i.e. from the moment of adoption for dissemination, the innovation acquires a new quality and becomes an innovation. Thus, 
innovation is an innovation related to scientific and technological progress (STP) and consisting in the renewal of fixed assets.
and technologies, improvement of management and economy of the enterprise.

References


