# Management of innovation

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### INNOVATION AS A KEY FACTOR OF COMPETITIVE ADVANTAGES

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# ИННОВАЦИИ КАК КЛЮЧЕВОЙ ФАКТОР КОНКУРЕНТНЫХ ПРЕИМУЩЕСТВ

The article analyzes the concept of innovation, offers the author's definition of the term. Innovation is proposed to be considered as a distinct competitive advantage, especially in innovative enterprises.

KEY WORDS: INNOVATION. TYPES OF INNOVATION. COMPETITIVE FACTORS OF INNOVATIVE ACTIVITY OF ENTERPRISES. THE COMPETITIVE ADVANTAGE OF INNOVATION ACTIVE ENTERPRISE.

Анализируется понятие инновации, предлагается авторское определение этого понятия. Инновацию предлагается рассматривать как неоспоримое конкурентное преимущество, особенно на инновационно-активных предприятиях.

ИННОВАЦИЯ. ВИДЫ ИННОВАЦИЙ. ФАКТОРЫ КОНКУРЕНТНОСПОСОБНОСТИ ИННОВАЦИОННОЙ ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЙ. КОНКУРЕНТНОЕ ПРЕИМУЩЕСТВО. ИННОВАЦИОННО-АКТИВНОЕ ПРЕДПРИЯТИЕ.

As the world experience shows, the innovation activity of enterprise may be one of the fundamental conditions for the formation of its competitive strategic perspective, retention and expansion of the market niche. Even enterprises which are successful nowadays, but not involved in innovation, sooner or later will face the difficulties because the market requires constant renovation and nothing is permanent, especially when it comes to competitiveness.

The change of the main competitive advantages which allows economic entities not only to survive, but also to develop successfully in the business environment is the key tendency of the modern economic system. This is manifested by the strengthening of the role of intangible assets, as well as the expansion of investments in intellectual capital. In fact, there is a struggle not for the possession of capital resources and material wealth, but, to be a larger extent, for the ability to develop and introduce innovation.

These tendencies in changes of usual market conditions in the external and internal environment have identified the new requirements of the management of survival and development processes. Strengthening of the role of scientific knowledge as strategic resources and the increasing influence of technological innovation as the key factors of success has led to the fact that the economic growth of the enterprises has become to be determined as the share of products and equipment which contains advanced knowledge and modern solutions.

The so-called «effective competition» is typical of the modern market of innovations and suggests that none of the competitors are in a position to influence the conditions of production and sale of products and competitors' actions do not include methods of monopolistic practices prohibited by the law (in this case, competition will be ineffective). The main types of competition in the innovation sphere can be grouped according to the following features:

- subjects of the competition individual and group;
- the nature of the relationship free (perfect) competition, oligopolistic competition, monopolistic competition;
- functional purpose intra-sectoral, intersectoral, and regional competition;
- action methods price and non-price, fair and unfair competition.

However, before considering innovation as a factor of competitiveness, it is necessary to give some characteristics of the most often used innovation.

The term *innovation* and the concept of innovation as a new economic category was introduced by the Austrian scientist Joseph Schumpeter [3]. He interprets the innovation as a new combination of production factors motivated by the entrepreneurial spirit. In the Schumpeters' terminology, the «innovation» is not a synonym of the word «invention» because the entrepreneurial activity is associated with the commercial use of available funds, but not with the creation of the new ones.

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Recognized worldwide as the most important factor of economic development, the scientific and technical progress is often associated with the concepts of the innovation process and innovation activity. Special social importance of these concepts involves the responsibility of the approach for the identification of the essence of innovation, and only then finding mechanisms of innovative activity and rational organization of the process itself.

Many researchers emphasize that the desire for change, as a personal quality of those who make the strategic decisions, promotes innovation at the organizational level. The fact that the democratic and interactional style of leadership supports innovation is widely recognized [4]. The thesis about the stimulus impact of competition on innovation has become universal.

In the opinion of the author, the dual nature of innovation is very important: on the one hand, it is the process of bringing inventions to commercial success, but, on the other hand, it the results in the process of obtaining competitive advantage.

Innovation is also the process of commercialization of the invention, the achievement of commercial success based on the production of useful product, service or good. This means that if an invention receives success in the market it becomes innovation.

Generalizing the well-known definitions and concepts, the author offers the following detailed interpretation of innovation: «Innovation is the final result of the introduction of innovations, its commercialization with the purpose of obtaining an economic, social, scientific-technical, and other types of effect in order to obtain economic, social, scientific, technical and other types of effects for new benefits for both the manufacturer and the consumer.»

This classification is an important moment in the theory of innovation. It depends on the classification criteria which were laid in its foundation. As a rule, the main classification signs are:

- product innovations (new products: a device, material, substance, etc.);
- process innovations (technology, production, management processes);
- allocative innovations (the use of different reorganization schemes, redistribution of tangible and intangible assets of the company, the responsibilities of its employees, especially managers).

One of the latest classifications of innovations which more fully reflects the needs of a modern economy is given in Tab. 1 [2].

Many innovations are identical and related. Such attributes as the degree of novelty of innovation, its role and importance, as well as the nature and time-to-market are assumed to be the most important from the presented attributes.

In the «Oslo Manual», innovations are divided into:

- product, related to changes in production;
- processing, associated with changes in technological processes;
- marketing, related to new sales markets;
- organizational, which affect the factors of the organizational, managerial, financial, and economic nature. [1].

The most important competitive sign of innovations in the market conditions should be the novelty of its consumer properties. The

Table 1

Classification of innovations

| Classification features                 | The grouping of innovations                                      |
|---|--|
| Depth of novelty                        | Basic, improving, false innovations                              |
| Market entry                            | Innovation leaders, innovation followers                         |
| Competitiveness                         | Strategic (preactive), adapting (reactive)                       |
| Character                               | Product, technological, non-technological                        |
| Extent of modifications                 | New generation, new type, new kind, new version                  |
| Protectability                          | Inventions, industrial designs, utility models, trademarks, etc. |
| Terms of development and implementation | Long-term, medium-term, and short-term                           |
| Creation                                | Individual, joint, acquired                                      |
| Costs                                   | Large-, medium-, low-cost  |
| Effectiveness                           | High-, medium-, low-effective                                    |
| Degree of the risk                      | High-, medium-, low-risky  |
| Financial support                       | Government, budget, off-budget, private, proprietary             |
| Scope of effectiveness                  | Budgetary, economic, commercial, environmental, social, complex  |
| Relation to the existing system         | Replacing, rationalizing, widening, opening                      |
| Place in the production chain           | On entry, in the production, on exit                             |
| Commercialization possibility           | For external and / or internal market                            |

introduction of innovations should be in accordance with demand, but not vice versa. Specialists explain that most of the failures connected with the introduction of innovations into the market arise from new knowledge, and not from needs as buyers do not need a new product, but new benefits.

Competitors are not in a hurry to follow the «pioneer» and introduce a novelty in their production when a new product appears on the market because, according to various estimates the level of failures associated with the introduction of new products on the market

ranges from 30 to 60 %. In this regard, it is accepted to allocate the strategy of a leader and a follower. There are two types of innovation processes which are behind this division: «pioneer» and «catching up», or two types of innovation: strategic (preactive) and adapting (reactive).

Adapting innovation is the innovation which the business entity implements following the competitor as a reaction to a new product that has already appeared on the market. Enterprises have to develop reactive innovations following their rivals to be presented on the market in a competitive position and to further ensure the survival and to prevent the technological lag in the production.

The strategic innovations include innovations of a pre-emptive (pre-active) nature with the purpose of obtaining the advantages of the «first mover», which, when used correctly, can lead to the leadership on the market and high incomes.

Supporting technologies are the innovations which improve the functioning of the product or service in the ways which have already been accepted by the consumers of the main market. They can be radical or gradual (incremental). The fact that they improve the quality of existing products in terms of their technical characteristics, which are important for the main consumers of the major markets generalizes them.

Disruptive innovations create an entirely new market which develops new types of goods and services and which, at the first stage of its existence, were actually worse than their predecessors in terms of their functional characteristics accepted by the majority of consumers. Products created on the basis of «disruptive» technologies are usually cheaper, simpler, smaller and easier to handle.

Speaking about disruptive technologies and investments, it should be noted that the mature companies always come to a conclusion that intensive investments in «disruptive» technology are irrational. There are three reasons for this:

- products of disruptive technologies are simpler, cheaper, and less profitable;
  usually these technologies are introduced on the new or small markets;
- consumers who generate most of the revenue do not need «disruptive» technologies. The least

profit-generating customers are more interested in these technologies.

Therefore, the market leaders, who are attentive to their customers, almost always late with investments in «disruptive» technology.

Thus, types of innovations on grounds are of significant importance in the choice of the form and methods of innovations development. The reason is that the processes of development and implementation and the further promotion for a specific innovation, the fundamentally new or just improved, will be different. Nevertheless, all types of innovations affect the competitive advantages of the enterprise.

The main features of competition in the innovation sphere which determine the necessity of its development, include:

- the factor of the company's susceptibility to the technical innovations;
- the entrepreneur must constantly search for new kinds of products and services which consumers need and meet the needs of the market:
- entrepreneurs are trying to ensure high quality products at market prices to retain customers;
- use the most effective methods of production;
- entrepreneurs quickly respond to the changing needs of consumers, as well as to all the changes in the economy.

There are several classifications of factors of the innovative enterprise competitiveness. In particular, V. Kulikov suggested two groups of factors.

- 1. Macroeconomic factors:
- the extent and nature of state regulation of the economy:
- monitoring of participation in the markets, the availability of related corporate groups and the existence of barriers to the market entry;
- the allocation of labor and capital;

- currency exchange rate, interest rate, and the distribution of state funds by government agencies;
- communication and infrastructure (efficiency and flexibility of communications in areas such as information exchange, trade, distribution and delivery of parts and other components, and raw materials).
  - 2. Microeconomic factors:
- requiring changes to the competitiveness arising as a result of a shift in market demand for products with changing requirements for quality, range, etc.;
- restricting change characterized by the directed influence of competitors, arising due to the restrictions which reflect the proportion of the economy and restrictions in the enterprise (for example, because of technology), and also because of the volume of investment potential.

These factors facilitate the innovative activity of the enterprise. In addition, it is necessary to develop measures of ensuring the competitiveness of innovative products. These include:

- the efficient work of marketing specialists, experience in project management, the ability to organize work on stimulation of innovative products;
- securing access to raw materials and energy;
- provision of highly skilled personnel potential;
- modern technologies and R&D;
- transfer of innovation technologies.

Thus, one of the most acute issues of the innovation economy is the competition for the technical level improvement and the quality of the manufactured products. It should be noted that the main elements of innovation infrastructure which can cope with the tasks to increase competitiveness of the manufactured production, are the innovation active enterprises. The high quality of products ensures their advantages in the competitive struggle for the consumer and creates the prospect for further development of the production.

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