

**Strategies, models and
technologies of economic
systems management in the
context of international
economic integration**

**Scientific monograph
edited by Dr.oec. Prof. Maksym Bezpartochnyi,
Dr.oec. Prof. Viktoriia Riashchenko,
Dr.paed. Nina Linde**

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Strategies, models and technologies of economic systems management in the context of international economic integration: scientific monograph / edited by Dr.oec. Prof. Maksym Bezpartochnyi, Dr.oec. Prof. Viktoriia Riashchenko, Dr.paed. Nina Linde, 2nd edition. – Riga: Institute of Economics of the Latvian Academy of Sciences, 2020. – 413 p.

The authors of the book have come to the conclusion that to improve the efficiency of managing economic systems it is necessary to use modern strategies, models and technologies. Basic research focuses on assessment the innovative potential of enterprise, analyzing the competitive environment, higher education and human resources, forming clusters. The research results have been implemented in the different models of environmental-economic management, implementation of financial innovations, mechanism for managing innovative development, digital transformation of the economy, introduction of Internet technologies, development of e-commerce, “business – education – science” triad, legal regulation of state aid and environmental taxation. The results of the study can be used in decision-making at the level of international business, ministries and departments that regulate the processes development of economic systems, ensuring stability and efficiency. The results can also be used by students and young scientists in developing of strategies, models and technologies for economic systems management in the context of international economic integration.

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**THE NECESSITY OF
FORMATION
MECHANISM'S
FORMATION OF
INNOVATIVE
DEVELOPMENT
MANAGEMENT AT A
TRADE ENTERPRISE**

The analysis of processes taking place in the world and domestic economy shows that the results of innovation, initiated by the acceleration of scientific and technological progress, significantly affect all aspects of society, contribute to overcoming the difficult economic situation, ensure economic stability, provide new impetus for its growing. Therefore, the innovative model of economic development remains extremely attractive and the most acceptable in Ukraine nowadays.

The main benefit of the innovative way of development is to ensure the economic growth without a proportional increase of raw material consumption, the formation of conditions under which investing in the creative and scientific potential of society becomes extremely profitable. Therefore, the relevant management task is considered to be the formation of a mechanism for managing innovative development in the enterprise.

Problems of formation the mechanism of innovative development management at the enterprise are reflected in scientific works of domestic and foreign scientists, such as: O.A. Belovodskaya, L. Zabrodskaya, S.M. Illyashenko, D.I. Kokurina, I.V. Kolodyazhna, N. Mova, L.V. Oliynyk, I.A. Rybalchenko, P.A. Fatkhutdinova, V. Haustova, I.A. Shovkun. The issue of innovation management is raised in the scientific works by L.V. Balabanova, M.A. Vilensky, L.M. Gatovsky, V.M. Honcharova, F.A. Dronova, A.C. Conson, D.S. L'vov, P.A. Orlova, S.G. Strumilina, S.M. Yampolsky and others.

In particular, L. Zabrodska considers that the modern model of economic growth, based on the innovative development type, requires effective stimulating of innovation, new financial and credit policy, development of knowledge-intensive and reduction of nature-exploiting

industries – at the macro level; changes in the type of entrepreuneuring, active involvement in the production of small and medium-sized businesses – at the micro level [1].

Instead, L.V. Oliynyk emphasizes that the general strategic provisions of the innovation activity at the enterprise are specified in the innovative development programs, which provide the development of tactical measures for achievement the goals defined in the innovation strategy of the enterprise [2, p. 53]

The study and analysis of published works on this issue led to the conclusion that the formation of a mechanism for managing innovative development in the enterprise are interpreted ambiguously, insufficiently developed in both scientific and organizational-practical aspects and require further research.

Writing this article, we used the studies of authors who concerned the range of issues, different interpretations of the concepts of “innovating”, “innovation” and “innovative activity” were explored, the basic principles of organizational and economic mechanism for managing innovative development at the enterprise and proposed areas of association were identified. We suggested the course of unification of mentioned principles into a single complex in order to form a mechanism for managing innovative development as an open and adaptive system.

The purpose of the study is to develop theoretical, methodological provisions and practical recommendations for determining the content of innovation at the enterprise, substantiation of the basic principles for organizational and economic mechanism of management the innovative development and identifying the course of systematic approach to this mechanism formation.

Innovation is considered to be one of the basic categories of innovation theory. There is lot of “innovation” definitions, suggested by both western and domestic scholars.

However, it should be mentioned, that innovation represents as an object in many scientific areas. According to linguistics, innovation is defined as the process of innovation and the presence of result is expected. Another definition is the process of refreshing, renewing, changing. Philosophical interpretation focuses on new knowledge and resolving contradictions. Psychologists, first of all, consider conflicts to be the ways to resolve them and synergistic effects achieved by teams of innovators. In the technical sciences, attention is paid to the technological problem of changes in fundamentally new

technologies. Not only the process of implementation is fixed in economics, but also large-scale cost-effective usage of innovation.

However, it's necessary to mention the other point of view. Firstly, it would be more appropriate to mention, that the concepts of innovation has more interpretations that we consider.

For instance, the scientist R.A Fatkhutdinov emphasizes, that investing in the development of innovations is only half the battle [3, p. 158]. The most important is to introduce innovations, turn it into innovation, i.e. to complete innovation activities, get a positive result and continue the diffusion of innovations.

It is necessary to carry out marketing researches, R&D, organizational and technological preparation of manufacture, manufacturing and at the end to issue results for innovation development. Secondly, it is inappropriate to include innovation stages and it's appearing to the concept. It considers innovative activity more, which results innovation. Thus, innovation is the final result of innovations aimed to achieve the appropriate effect and create new or improved competitive commodity (services, technologies, etc.) that will meet the needs of consumers, which can cover all areas of enterprise and boost the development and efficiency.

It's impossible to improve the innovative activity development without modern scientific and technological achievements, which are implemented into modern technologies, commodity, communication means, new ways of technical and organizational management, new kinds of service. We estimate I.V.Kolodyazhna's point of view to be logically-structured, linear and to consist the following stages: product initiation, promotion and commercialization [4, p.53].

We agree with statements of S.M. Ilyashenko and O.A.Bilovodska about ideas of innovations that should be based on the following principles [5, p.98]:

1) On the analysis of market needs, that means a real demand of particular product (goods or service). In other words, innovations may happen in response to existing market needs. It's marketing option, which can be called as evolutionary. Different changes in existing commodity also belong to evolutionary ones.

2) On the analysis of own activity of the enterprise (for example, in case of revealing of the reasons of defection and reclamation, etc.);

3) On information from periodicals, attending fairs, exhibitions, conferences, etc.

4) On the intellectual activity of new product creation, which is

aimed to meet the demand, which is absent on the market and may appear with the appearing of new product. In fact, it is the creation of a new market. This is a radical, revolutionary means.

Different definitions of “innovative activity” are found in economical literature. Thus, the scientist I.A Shovkun argues that innovation is defined as a process of strategic marketing, R&D, organizational and technological preparation for production, producing and designing of innovations, their introduction (or transformation into innovation) and dissemination to other areas (diffusion) [6, p. 27]. S.M. Illyashenko and O.A. Bilovodska support the ideas which state, that innovating activity is a process of creation, implementation and spreading innovation [5, p. 112]. We consider the idea of I.A. Rybalchenko to be correct, as innovating activity, as a rule, is directed at practical usage of scientific and technological results and intellectual potential to new or improved product, the way of its producing, and to meet the needs of competitive goods or service, making better the social and information service [7, p. 22].

D.I. Kokurin emphasizes the role of the creativity of work in the interaction of the subject with the outside world in innovation, awareness of the contradictions in this system, which implies the purpose of the activity that can solve them. In other words, the scholar considers the innovation to be a means to solve the contradiction, arose between social subject and environment, which forms new social needs, and during the social production [8, p. 20]. We reckon this statement to be reasonable enough. Generalizing suggested approaches, we emphasize, that innovation, aimed to produce new means of production, which is stable and regards to be the main to develop social wealth, regards to be noticed. Making a conclusion, the innovative activity should be interpreted as a kind of business entities’ activity, which aimed to make modern and improved decisions, fixed in innovations. The specificity of innovation is linked with the long-term nature of the results, increased risk, unpredictability of results, potentially high benefit.

As N. Mova and V. Haustov state, the innovating is investigated from different aspect and includes different detailization level [9, p. 31]:

- 1) as a parallel and consistent implementation of research, scientific and technical, production activities and marketing;
- 2) as stages of innovation live cycle – from appearing the idea, to developing and spreading;
- 3) as investing and financing of developing and spreading new kind

of product or service.

It's necessary to mention, that innovating has cyclical nature and consists of many innovation cycles. In general, innovating cycle is limited by the moment of beginning to work on innovation, on the one hand, and commercialization – on the other.

According to classical innovation approaches of management, suggested by R.A. Fathutdinov, the first stage of functional innovating coherence is fundamental study, which awake new scientific knowledge [3, p. 164]. In general, we agree with this statement, but should mention, that according to point of innovative enterprise which works under the market conditions, is considered to be abstract enough. The market gives its own rules, and innovations can occur only under objective conditions. The first condition is the presence of demand-backed demand, actual or potential, or possibility of demand formation (for only new commodity – products or service), i.e. the presence of market potential, which identifies the market capability to accept innovation of particular type and focus, which can be elaborated and suggested by the particular enterprise.

The second condition is a possibility of the achievements of science and technology embodiment in specific products that can meet consumer demand – the innovative potential of the innovation developer.

The third condition is economical possibility and the expediency of the enterprise-innovator to develop (although it is not necessary, because new ideas, technologies, etc. can be purchased), to produce and promote innovations in the market – production and sales potential. It's meant not only production and sales, which is one of the functions of marketing, but its considered production and marketing, which are focused on consumer demand production and sales, including the creation and stimulation of demand.

Thus, innovation has a chance to be successful on condition that there are at least three of these aspects (Figure 2.14), as the absence of at least one of them makes it impossible to develop the enterprise in an innovatively.

We should add that under market conditions of activity, in fact, the enterprise is defined defined by external conditions, first of all by needs and inquiries of consumers, activity of competitors and business partners, etc.

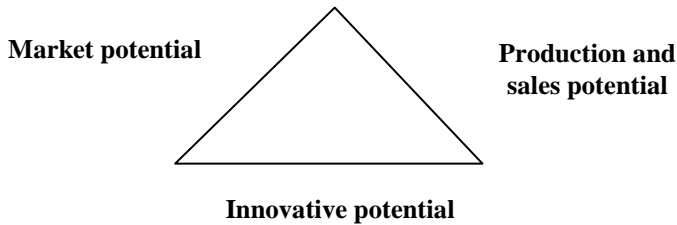


Figure 2.14 The main components of successful innovative activity at enterprise

Source: produced by author based [5]

That's why, the formation of long-term goals system of general economic activity is occurred as a result of forecasting possible changes in environmental parameters and comparing them with the strategic potential of the enterprise.

Thus, the beginning of the process formation of the competitive success of the enterprise-innovator is placed at the intersection of many marketing, scientific and technical, production solutions. In condition of consumer demands presence at the particular market segments, intellectual and technological capabilities to use science and technology achievements, which are able to meet these demands by offering new products (products or services), technical and economic capabilities of production and marketing with using affordable which are compatible with purchasing by consumers, the ability to promote at the market and bring new products to consumers in a more efficient way than competitors, creates a foundation for technologically and economically based strategy of innovative development.

Innovations in trade is a process aimed at the development, improvement of modern, latest types of technologies that effect optimization of technological, organizational, functional business processes of the trade enterprise according to particular conditions that appear at the market.

The main structure of wholesale trade, to our mind, includes:

- 1) creation of a single informative space;
- 2) stimulation of wholesale enterprise to use innovation;
- 3) achieving a high level of automation and mechanization of warehousing operations and processes;
- 4) variation and modernization of warehouse complex;
- 5) elimination of unnecessary intermediary links in the process of

goods movement;

6) involving the national capital for participation in investment project to create modern wholesale enterprises;

7) effective quality product control, exclusion of counterfeit and low-quality goods at market;

8) creation of integrative structure (industrial and trade associations, financial and trade groups);

9) systematic monitoring of efficiency and services quality provided by wholesale trade enterprises [10, p. 72].

It should be admitted, that during the domestic economy transformation, there is a relevant problem for most domestic enterprises linked with radical restructuring of the organizational and economic mechanism in accordance with the new realities. Under market conditions, manufacturers must focus their activities on meeting the needs and demands of consumers, address the search and implementation of existing and promising market opportunities, especially – opportunities for innovative development. Accordingly, the organizational and economic mechanism of the enterprise must function in close cooperation with market and regulatory mechanisms.

The complexity and versatility of such interaction allows us to talk about the necessity of formation the organizational and economic mechanism for managing innovation development (OEMIDME) or at least about the transformation of the organizational and economic mechanism at the enterprise in this direction to adapt to new economic conditions.

Paying attention for the aspects of the formation of organizational and economic mechanism for managing the innovative development of enterprises, recommended by scientists S.M Ilyashenko and O.A Belovodskaya, we suggest a scheme of OEMIDME formation and operation (Figure 2.15).

According to the scheme, the process of forming OEMIDME involves the existence of principles that should be its basis, identifying its functions and the development.

OEMIDME should focus the activities of economic entities on the purposeful search and implementation of market opportunities for innovative development that open up to them, which ensures their long-term survival and development in the unstable environment, according to the chosen mission.

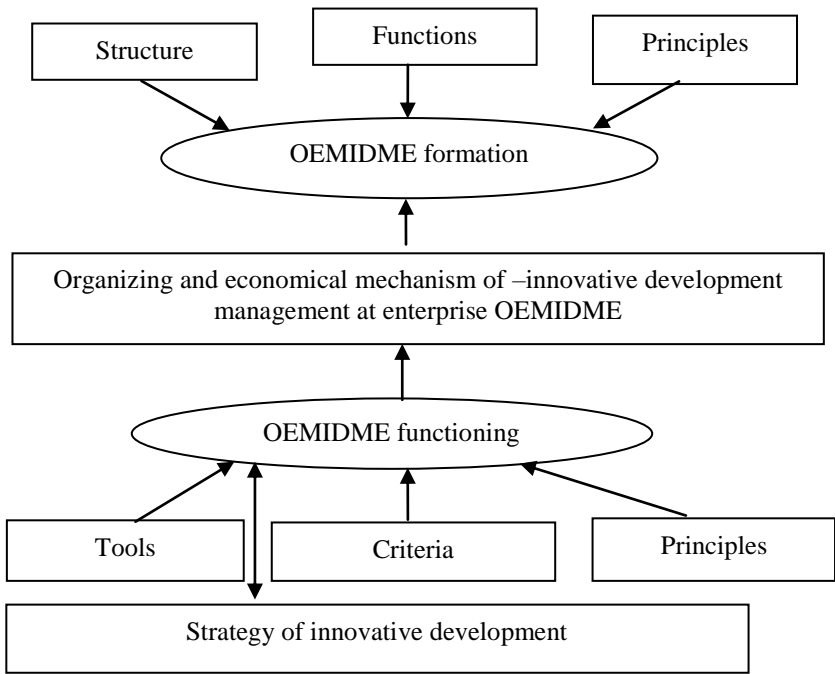


Figure 2.15 The scheme of formation of the organizational and economic mechanism management of innovative development

Source: produced by author based [5]

In other words, OEMIDME represents one of the main elements economic entities system of adaptation to changeable environmental conditions, thus ensuring their long-term survival and sustainable development.

OEMIDME should be based on particular scientific principles. In economical literature, we meet different classifications of functional principles of the organizational and economic mechanism of management of innovative development of the enterprise. However, we consider the most reasonable list of principles proposed by scientists S.M Ilyashenko and O.A Belovodskaya [5, p. 110]. In particular, according to this classification, the organizational and economic mechanism for managing the innovative development of the enterprise should be based on the following principles:

1. The principle of system. OEMIDME should be considered as a complex, open, adaptive (capable for self-organization, self-regulation, self-development), a dynamic system of probabilistic nature. It is characterized by the structural complexity, the presence of numerous elements with complex relationships, dynamism and stochastic behavior in general and its individual elements.

2. The principle of complexity. Complexity should be understood as the mutually conditioned and proportionally agreed development of the system as a whole, which ensures the connection of all subsystems and elements. Complexity of consideration organically coordinates all aspects of OEMIDME functioning as a complex of integral management systems: market mechanisms, including regulation and providing mechanisms, the economic mechanism of the enterprise, tools and methods management of innovative development management at the level of separate economical subject.

3. The principle of the main orientation on the innovative path of development. Provides the orientation of the business entity on the continuous search and use of new ways and areas of its potential realization in the changing environment in accordance with the chosen mission and the accepted motivation.

4. The principle of balancing between the subject interests subjects and the innovation process. It assumes the production and implementation of innovations should benefit all (ideally) participants in the innovation process: the investor, the developer of innovations, the supplier, the manufacturer, the retailer, the consumer and society as a whole.

5. The principle of “smart” innovation orientation to meet the needs and demands of consumers. In modern conditions, the manufacturer needs to be succeed in the market, he must focus its production and marketing activities (including innovation) to meet the interests of target groups of consumers. It is a traditional market approach.

6. The principle of equality between consuming and reproduction of nature materials. Limited natural resources, the existence of self-renewal limits determine the need for their artificial reproduction. However, the production aim is achieved through ignoring ecological ones. But, the achievement of ecological goals preserves the production development.

7. The principle of alternative development options. In conditions of permanent instability, constant changes in the political, economic, and ecological environment, the development of future events almost always have alternative nature. There are several possible consequences of the

decision with different options for their development.

8. The principle of maintaining a compromise between the risk degree and the expected results (the principle of justified risk). Multioptional sequence of events deals with risks, caused by disability to predict both the variants of events and the chance of their occurrence (unidentity factor). That's why, there is a risk of having an inadequate decision.

9. The principle of flexible reaction. The transformation period in the economy of Ukraine requires high efficiency and flexibility to respond the changes market abilities and threats. Depending on the direction of the changes, a specific enterprise must quickly restructure its activities, choosing those development options that correspond to the new market situation and existing potential.

10. The principle of "reasonable extreme" of market positions. Adherence of this principle means that the company should focus on market niches or work in most market segments (ideally the market as a whole). The middle position is quite dangerous. Therefore, companies that do not have the means of achievement a leading position in the market, should focus their efforts on a niche market (several niches) or the target market segment.

It should be noted that the combination of these principles into a single complex allows us to consider the EMC of the business entity as an open, adaptive, dynamic system of probability (systemic principle), which operates in a market environment within the limits of state and regional regulation (the principle of complexity), which ensures long-term survival and development of the business entity in an unstable environment. Due to continuous search and using of modern means and areas of potential realization (the principle of orientation and innovation).

We are sure, that the main task of organizational and economic mechanism of innovation management at the enterprise is to direct enterprise entities on continuous search and realization of market innovation abilities in changeable environment under limits of chosen mission and accepted motivation. Adherence to the above principles in the construction of OEMIDME requires a systematic approach and, accordingly, its consideration as a complex one, in terms of internal and external environments its operation. The considered OEMIDME is closely connected with the social and economic policy of the state, which through a system of methods of incentives and regulation manages the formation of a socially oriented market economy.

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