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ENTERPRISE'S INNOVATION DEVELOPMENT STRATEGY SUBSTANTIATION AND ITS AIMS

Abstract. Problem. Insufficient elaboration of the strategic approaches to the innovations planning constrains enterprises to implement short-term innovation targets, that are directed, mainly, at the partial improving of manufacturing, but it does not allow usage of its innovation potential. For the present, issues of theoretical and methodological supply of the strategic planning processes of innovation development at the enterprises are still unsolved. Solution of these problems will enable innovative and active enterprises to elaborate the strategy of innovation development more effectively and to correct it in time. **Results.** In the article, the problems of formation and implementation of the enterprise's innovation development strategic aims are studied. It was proposed to use the concept «innovation development strategy of the enterprise» and to define it as a set of planning decisions at different levels relative to the balanced system of innovation development directions and distribution of investment resources in the data areas that are aimed at achieving the strategic goals from the top-level goals to competitive, functional and resource ones. It is proved that the strategy of the innovation enterprise development is a complex process with direct and inverse interconnections, including the choice and substantiation of the lower levels (strategic set). In the context of each strategy, the sets of aims, from the upper level aims till the compatible, functional and resource ones, are formed. **Conclusion.** The combinations of competitive strategies goals developed in accordance to each type of innovation development strategy allow making not one-stage, fragmented decisions, but to create a coherent strategic set of innovation development strategies for the enterprise.

Keywords: innovation development of the enterprise; strategy; strategic set; strategic aims of the highest level.

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ОБҐРУНТУВАННЯ СТРАТЕГІЇ ІННОВАЦІЙНОГО РОЗВИТКУ ПІДПРИЄМСТВА ТА ЇЇ ЦІЛЕЙ

Анотація. Досліджено основні проблеми формування та реалізації стратегічних цілей інноваційного розвитку промислового підприємства. Запропоновано використовувати поняття «стратегії інноваційного розвитку підприємства». Обґрунтовано, що стратегія інноваційного розвитку підприємства – це складний процес із прямими і зворотними зв'язками, що передбачає вибір та визначення стратегій нижчих рівнів – стратегічного набору. У рамках кожної стратегії сформовано набори цілей – від стратегічних цілей верхнього рівня до конкурентних, функціональних і ресурсних.

Ключові слова: інноваційний розвиток підприємства, стратегія, стратегічний набір, стратегічні цілі верхнього рівня.

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ОБОСНОВАНИЕ СТРАТЕГИИ ИННОВАЦИОННОГО РАЗВИТИЯ ПРЕДПРИЯТИЯ И ЕЕ ЦЕЛЕЙ

Аннотация. Исследованы основные проблемы формирования и реализации стратегических целей инновационного развития промышленного предприятия. Предложено использовать понятие «стратегии инновационного развития предприятия». Обосновано, что стратегия инновационного развития предприятия – это сложный процесс с прямыми и обратными связями, который предусматривает выбор и определение стратегий низших уровней – стратегического набора. В рамках каждой стратегии сформированы наборы целей – от стратегических целей верхнего уровня до конкурентных, функциональных и ресурсных.

Ключевые слова: инновационное развитие предприятия, стратегия, стратегический набор, стратегические цели верхнего уровня.

Introduction. The choice of innovation strategy is the most important step of the strategic planning in the innovation development of the enterprises. Thus, the effectiveness of achieving the aimed targets is mainly determined by the right choice of directions of innovation development. An insufficient elaboration of the strategic approaches to the innovations' planning constrains enterprises to implement short-term innovation targets, that are directed, mainly, at the partial impro-

ving of the manufacturing, but it does not allow the usage of its innovation potential.

Brief Literature Review. Theoretical, methodological, methodical and practical aspects of strategic planning of the enterprises were studied in the works of different foreign and native researches such as: I. Ansoff (1989) [1], H. Mintzberg, B. Alstrand, and J. Lampel (2001) [2], R. A. Fatkhutdinov (2005) [3], Z. Ye. Shershnova (2004) [4], V. S. Ponomarenko, A. M. Zo-

lotarev, and O. M. Yastremskaya (2005) [5]. The study of innovation processes at the stage of enterprises and the economical basement of the management are reflected in the works of foreign and native scientists A. N. Barykin and I. M. Nikonov (2010) [6], A. V. Grinyova and T. V. Dedilova (2008) [7] and others.

At the same time, the issues of theoretical and methodological supply of the strategic planning processes of innovation development at the enterprises are still unsolved. Their solution will enable innovative and active enterprises to elaborate the strategy of innovation development more effective and to correct it in time.

The purpose is the further development of theoretical and methodological principles of the strategic planning of industrial enterprise's innovation development.

Results. The review and analysis of both foreign and native scientist's studies show the existence of the huge number of approaches to the definition of the notion «the innovation strategy of an enterprise». At the same time, the scholars have different variants of this notion, in particular: «the strategy of innovation» [8], «the strategy of the innovation activity development» [7], «the strategy of innovation development» [9]. However, T. M. Yankovets (2010) determines that modern interpretations of the basic nature of the innovation strategy restrain its usage. The scientist accentuates that nowadays innovation strategy «...has to cover all management levels and all departments of the enterprise in the system of strategic administration, which provides continual improvement and reorganization of the whole enterprise, its constant innovation development in the long-term prospect... The innovation strategy integrates in all enterprise strategies ...starting with corporative and ending with operational» [10, p. 168].

Taking into consideration the fact given by the author and accepting the author's opinion, that in the present-day management conditions development of the enterprise [6, p. 18], we offer to usage of the notion «the strategy of innovation development of the enterprise», which has wider meaning than the generally accepted notion «the innovation strategy of the enterprise». Correspondently, on the basis of the scientific sources analysis we offer to seize the notion «the strategy of the innovational development of the enterprise» as the aggregate of the planned decisions of different levels concerning the choice of the balanced system of the innovational development areas and as the distribution of the investment resources among given areas, which are directed to the achieving strategic targets.

The dispute among researchers concerning the usage of such notions as «enterprise innovation strategy», «the development strategy of the innovation activity» or «the strategy of the innovation development», thereafter, results into ambiguities in the classification approaches to innovation strategies of enterprises and the absence of a set of the distinct and unambiguous indication of these strategies' distribution.

Analytical review of the scientific works of both native and foreign researches in the sphere of classification and realization of the selections of the set of enterprises innovation strategies give the reason to affirm, that there exists a wide range of classification signs of innovation strategies, at the same time the distinct approach to the definition of the set of innovation strategies at various levels is absent.

In the research work were defined the scientific concepts, on the basis of which the set of strategies must be formed: 1) direction to the achievements of the real interconnected targets; 2) hierarchic character of the strategic set; 3) the reliability of the specific strategic set, that assumes its all-round validity; 4) flexibility and dynamics of the procedure, that participate in the formation of the strategic set.

On the basis of the given above definition of the «enterprise innovation development strategy», which is shown above, we assert that the enterprise innovation development strategy is a kind of a strategic set, because it comprises the aggregation of plans of different levels: from general to operational ones.

The work gives the ground to the fact that the basis of the global strategy formation is the aggregation of the functional and development aims of the enterprise. In addition it is proved that the basis for classification enumeration of the higher level

aims can become the notion «development» – functioning of the enterprise, accompanied by the qualitative changes in applied equipment and technologies, production and product markets. Such development can be positive, if the characteristics of goods and technologies exceed average level in the industry or in world in this field (in the context of the international analysis and globalization). Zero development appears when the characteristics correspond to the standards and regressive development appears if the characteristics decrease [5, p. 131].

As the result, the enumeration of upper level strategic aims can be formed for the enterprise's innovation development strategy as follows: progressive innovation development, zero innovation development, regressive innovation development.

The aforementioned aims represent the final qualitative result depicting the desired state of the innovation development of the enterprise in future.

Three types of innovation strategies correspond to these aims: *advance strategy* (progressive innovation development aims), *defense strategy* (zero innovative development), *expectation strategy* (regressive innovative development aims) (Table 1).

The next level of strategic aim formation is based on the study of those economic advantages which are appealed to while realizing the first level aims. Thus, the major component of the second level classification is «competitiveness».

The main features of the competition are: price, quality, opportunities, novelty of manufactured products, technologies which are used, and markets which are supplied. [5, p. 132]. Correspondently, the strategy of innovation development of enterprise integrates into the set of competitive strategies of the enterprise and creates a new set – a set of innovation development:

1. The price strategy of innovation development. The main goal – reduction of the product's cost. Implementation of innovations with improving character.

2. The strategy of quality of the innovation development. The main goal is to improve the product quality. Implementation of innovations with improving character.

3. The strategy of innovation development opportunities. The main goal is search for new directions, new markets. Implementation of radical and ordinary innovations.

4. The strategy of innovation development novelty. The main goal is introduction of radical changes into all activity spheres. Implementation of radical and ordinary innovations.

Implementation of competitive strategies involves some more concrete goals. Relying on suggestions, set in the work [3, pp. 364-367], the system of competitive goals just for innovation development of innovation-driven is given and the system of symbols is introduced:

- improving the quality of manufactured products (production of first and second generation) (Q);
- reduction of costs of manufactured production (production of the second generation) through the introduction and development of new technologies, new methods of organization and rationalization of production (C);
- price reduction of manufactured production (P);
- increase of the output of manufactured products through the introduction of new technologies (increasing the capacity of the equipment), the development of new technologies, new methods of organization of production, rationalization of production (O);
- development of the market for old and new production (M);
- development of the manufacture of products new for the enterprise (Np);
- development of the fundamentally new promising production (radical product innovations) and the technologies of its manufacturing (Pp).

All above listed competitive goals of innovation to provide certain innovations, some of which are presented in Table 2, are hold out in the research.

On the basis of the set of innovations for implementation of appropriate competitive strategy of innovation development, defined in Table 2, and additionally accepted conditions (as depending on the type of innovation development strategy the

Tab. 1: Characteristics of Enterprise Innovation Development Strategies

Substrategy	Strategy Essence	Possible Results
Advance strategy		
Active	<ul style="list-style-type: none"> - leading positions in development and production of innovation goods; - permanent and considerable investment into Research & Development 	<ol style="list-style-type: none"> 1. completely new products; 2. completely new technologies; 3. super profit; 4. market leadership
Passive	<ul style="list-style-type: none"> - leader's follower; - permanent and considerable investment into Research & Development; - manufacturing of innovative production after its approbation by leading enterprises 	<ul style="list-style-type: none"> - improved new products; - high and stable income; - risks of holding the second leadership position within the group of rivals
Own area search	<ul style="list-style-type: none"> - search for own special area in the active markets 	<ul style="list-style-type: none"> - absence of rivals; - high income
Defense Strategy		
Protective	<ul style="list-style-type: none"> - optimization within expenses-output ratio; - improvement and mass production of innovations after its approbation by rivals; - considerable investment 	<ul style="list-style-type: none"> - decrease of expenses, drop of prices, preservation of competitiveness in the second generation products market; - high income because of mass production new sample, protected by law, and improved by the 3rd generation innovative products
Simulating (license strategy)	Obtaining of licenses with minimum Research & Development expenses	<ul style="list-style-type: none"> - high and stable income (if the special qualification is of high level and permanent maintenance of the level achieved); - minimum expenses; - minimal time for production of innovative goods
Expectation Strategy		
Opportunistic (quality centered strategy)	Increase of the 2 nd generation product quality – market leader with no requirements for big Research & Development expenses	<ul style="list-style-type: none"> - stable income; - stable position on the market; - errors in estimation of own opportunities and market choice would lead to prompt advantage losses
Traditional (market benefit strategy)	<ul style="list-style-type: none"> - high returns from the unique products; - quality increase and improvement of the production maintenance 	<ul style="list-style-type: none"> - high and stable income; - relatively high income on the growth and maturity stages considering unique production and accumulation of resources to gradually switch from one product type output to the other one

Source: Composed by the authors on the basis of [1; 2; 4, pp. 368-370; 11, pp. 50-55]

Tab. 2: Types of innovation required to implement competitive strategies of innovation development*

No.	Main types of innovation	Competitive strategies and goals						
		Price strategy	Quality strategy		Opportunity strategy		Innovation strategy	
		P	C	Q	M	O	Np	Pp
1	Development of a fundamentally new product that has no analogues in the world, based on invention and technology of its manufacturing			+	+			+
2	Development of a new product (product-analogue), aimed at meeting the exciting needs otherwise than traditional product			+	+		+	
3	Modification of existing products			+	+		+	
4	Introduction of new technology based on invention/license		+			+	+	+
5	Improvement of management system		+	+	+	+		
6	Increase of market segment of existing products/development of new ones	+			+			
...								
n	Certification of quality systems			+				

*The sign «+» means necessity to introduce innovations and implement the appropriate competitive strategy.
Source: Compiled by the authors

different combinations of company's strategic goals are possible) some symbols were added to the Table 3:

1 – index that characterizes the invariance of competitive strategy;
2 – index that describes the update of competitive strategy.

For example, reduction of production costs, development and production of fundamentally new product and others. According to this, we formulated the most typical basic types of reproduction of enterprises products (Table 3) and coordinated them with the appropriate types of innovation strategy (Table 4).

At the third level of the goal formation the chosen strategy should be implemented functionally (through research and development work, marketing, supply, production, sales). The implementation of functional goals in the strategic planning of innovation development assumes the formation of strategic innovation potential of the enterprise innovation development, conditioned by available resources (material, financial, labor, information).

Moreover, the strategic resource potential of innovation development of the enterprise has the feature of backward influence on the development of functional goals, and they in turn – on competitive ones and those in turn – on the list of top level strategic goals.

As a result, the choice of strategy of innovation development turns into a complex process of forward and backward linkages, which includes the selection and substantiation of lower level strategies. It allows to make not one stage, fragmented decisions, but to create a set of innovation development strategies (top level strategic goals, competitive, functional and related to the resource), what in its turn will give the opportunity to plan an innovation development of the enterprise in accordance with real possibilities.

Conclusion. In this work, the further evolution received the theoretical generalization of the approaches to the strategic planning of the enterprise innovation development. It is proved, that the most important step in the strategic planning of innovation development of the enterprise is the selection of innovation development strategy, which under present-day conditions acquires a new character: ceases to be a part of the overall business strategy and acquires new features of general business strategy, as innovations in the enterprise increasingly define the general line of the company.

It was proposed to use the concept «innovation development strategy of the enterprise» and to define it as a set of planning decisions of different levels relative to the balanced system of innovation development directions and distribution of investment resources in the data areas that are aimed at achieving the strategic goals

Tab. 3: The main types of reproduction of products

Combinations of competitive strategy goals of innovative development	Type of products reproduction
1) P ₁ C ₁ Q ₁ M ₁ O ₁ Np ₁ Pp ₁	Simple reproduction (without innovations)
2) P ₂ C ₂ Q ₁ M ₁ O ₁ Np ₁ Pp ₁	Simple reproduction of the product at a reduced price by resource saving technology
3) P ₁ C ₁ Q ₂ M ₁ O ₁ Np ₁ Pp ₁	Simple reproduction of high quality product
4) P ₁ C ₂ Q ₂ M ₂ O ₁ Np ₁ Pp ₁	Simple reproduction of high quality product by resource saving technology for new and old markets
n) P ₂ C ₂ Q ₂ M ₂ O ₂ Np ₂ Pp ₂	Expanded reproduction of fundamentally new products by new technology for new and old markets and products-analogue (the most complicated reproduction)

Source: Compiled by the authors

from the top-level goals to competitive, functional and resource ones. The combinations of competitive strategies goals developed in accordance to each type of innovation development strategy allow to make not one stage, fragmented decisions, but to create a set of innovation development strategies form a coherent strategic set of innovation development enterprise.

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Tab. 4: The main types of reproduction of products in terms of the innovation development strategies

Subtype of strategy	The main types of innovations / Combination of goals of competitive strategies	Source of innovations
Active-advance	Radical innovations: process (introduction of new processes); product innovations. Development of new markets, the expansion of old ones. Improving and ordinary innovations in the production of the second generation. P ₂ C ₂ Q ₂ M ₂ O ₂ Np ₂ Pp ₂	Usage of the world scientific and technical achievements, availability of own scientific researches. Own research department (Own RD)
Passive-advance	Improving and ordinary innovation in the production of the second generation (differentiation of production, rationalization of production processes), which gained recognition on the market. A significant number of own-innovation in terms of production of the first generation, based on radical innovations of technology leader. P ₂ C ₂ Q ₂ M ₂ O ₂ Np ₂ Pp ₁ ; P ₂ C ₂ Q ₂ M ₂ O ₂ Np ₂ Pp ₂	Usage of the world scientific and technical achievements, availability of own scientific researches. Own RD
Opportunistic	Improving production innovation: differentiation of highly profitable production of the second generation. P ₁ C ₂ Q ₂ M ₁ O ₁ Np ₁ Pp ₁ ; P ₂ C ₂ Q ₂ M ₂ O ₂ Np ₂ Pp ₁	Usage of the world scientific and technical achievements
Protective	Rationalization of production. Improving and ordinary innovations of new promising products. P ₂ C ₂ Q ₂ M ₂ O ₂ Np ₂ Pp ₁	Legally protected improved promising novelty of pioneer enterprises. Own RD
Simulating	Purchasing license-based production technologies. P ₂ C ₂ Q ₂ M ₂ O ₂ Np ₂ Pp ₁	Licenses for technologies
Traditional	Improving of production of long-lasting, stable demand. Improving of technology, product quality, marketing system. P ₁ C ₂ Q ₂ M ₂ O ₂ Np ₁ Pp ₁ ; P ₁ C ₂ Q ₂ M ₁ O ₂ Np ₁ Pp ₁ ; P ₁ C ₂ Q ₂ M ₂ O ₁ Np ₁ Pp ₁ ; P ₁ C ₁ Q ₂ M ₂ O ₁ Np ₁ Pp ₁ ; P ₁ C ₁ Q ₂ M ₁ O ₂ Np ₁ Pp ₁ ; P ₁ C ₁ Q ₂ M ₁ O ₁ Np ₁ Pp ₁	Usage of the world scientific and technical achievements
Search for own niche	Ordinary innovations, radical innovations are possible. P ₁ C ₂ Q ₂ M ₂ O ₂ Np ₂ Pp ₁	Own RD

Source: Composed by the authors on the basis of [1; 2; 4, pp. 368-370; 11, pp. 50-55]

The perspective of the further researches in this area is the approximation of the studied approaches in the group of working enterprises of different areas and spheres.

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