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PROBLEMATICS OF ENTERPRISE DEVELOPMENT IN THE ECONOMY OF KNOWLEDGE BASED ON LOGISTIC APPROACH

ABSTRACT

The theoretical approach of the knowledge economy to the development of the strategy of industrial enterprises based on the logistical methodology are covered. The definition of strategy and strategic planning for the knowledge economy is presented. The process of strategy development is characterized and the algorithm of strategic planning of an industrial enterprise is proposed considering the knowledge economy.

KEY WORDS

KNOWLEDGE ECONOMY, STRATEGY, STRATEGIC PLANNING, INDUSTRIAL ENTERPRISE, STRATEGIC PLAN.

From the position of a scientific theory the problematic of enterprise development may be considered in the context of changes in socio-economic systems of various scales. It is interesting to compare the dynamics of the company development and the rate of extinction with the dynamics of development of large social economic systems such as cities [West D., 2018, p.36]. Indeed, the changes in the company (especially innovation management) and adaptation to fluctuations in the external environment becomes more difficult for companies, especially given the continuous changes in the social economic environment. Accordingly, a constant rethinking of the conditions of enterprises functioning is necessary. As the cities grow, they become increasingly multidimensional and differ considerably from most companies by the variety, which depends on the number of different economic agents and allows to adapt to changes in the environment. Such comparison is of great interest in the context of studying the approaches to the formulation of a development strategy of industrial enterprises in conditions of knowledge economy. It should be noted that the comparison D. West gives a fair idea about the similarity of the dynamics of development of economic agents with the life processes of organisms in nature, as well as the differences in the development of companies and cities. However, in our opinion, the study of the flow of financial resources, material assets and the flow of information forms an idea of the characteristics of the considered socio-economic system. Unified flow pattern can be considered based on the logistic methodology that allows us to take into account the approach towards achieving objectively true knowledge about reality on the basis of a study of unique historically developing systems, from the perspective of the study of the resources movement on the basis of humanistic benchmarks of scientific research strategy.

In the 1960's the socio-economic system of the developed countries undergone the transformation to the post-industrial phase of evolution on the basis of the economy that use knowledge, or the knowledge economy. The ubiquity of information technology, systems of processing of information resources, the allocation of knowledge as the main competitive advantages require improvement of the theoretical basis for the development of the strategy in accordance with the realities. It broadly the problem of methodology of scientific knowledge is a formulation of methods of scientific theories creation, the subject of the methodology of logistics is the internal structure of research activities from the position of movement of streams of different types of resources considered by both: content (the study of essence of the flows), and organization (a set of approaches to study rapidly developing objects).



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Logistic methodology will allow us to consider current issues related to the competitiveness of domestic industrial enterprises, development of which continues to be ensured through the use of more resources, i.e., the extensive, not intensive development. Innovation in production processes, continued automation of production and other related to knowledge economy changes increase the role of information and its processing in ensuring competitive advantage. In-house scientific research and development allow industrial enterprises to keep the existing market niches and find new niches, to lead in their market segment.

In conditions of knowledge economy formation of competitive advantage of the industrial enterprises, lack of development of an appropriate strategy will not allow to reach development goals in the medium and long term.

There are many research works in the field of strategy development, both in general and for industrial enterprises in particular. This subject is discussed in works of A. D. Vorobiev, K. N. Gozhenko, dissertations of M. A. Pestunov, Yu. V. Ragulina and I. G. Silenko, etc., the bulk of the used theoretical concepts have been developed in the late twentieth century on the basis of research of foreign authors. Nevertheless, the issues of organization of this process for industrial production in terms of the development of the knowledge economy are investigated insufficiently. In this article, the study of problems of companies development from the position of logistic methodology allows us to study the processes of development, involvement of cognitive technology based on knowledge sharing, conducive to the organization of flows of information, finance and material resources.

The object of study: the processes of development of industrial enterprises in conditions of transition to the knowledge economy.

The subject of study: analysis of directions of the improvement of the theoretical approach of the knowledge economy to the development of industrial enterprise strategies.

Scientific novelty of research:

- The application of logistic methodology involves the improvement of the conceptual apparatus that includes the terms "strategy", "strategic planning", "strategic analysis", "strategic plan" in the context of the knowledge economy from the position of the study of flow processes that ensure the development of socio-economic system.
- Logistic theory allows us to consider the peculiarities of the knowledge economy in the process of strategic planning of the industrial enterprise activity.
- Logistic methodology allows to improve the process of development of strategy of the industrial enterprise.

The term "knowledge economy" was first introduced in the scientific circulation in 1962 in the United States [Abramov A. N., 2010]. In developed countries, the transition to the knowledge economy was in 1960's, while in Russia, the process began in the 1990's, or even in the twenty-first century [Belova, N. E., 2013]. A later beginning of the transition to the knowledge economy and the continued reliance on the resource-based approach to the detriment of innovative development is directly reflected in indicators of innovation development of our country. The international innovation index serves as an indication of this: in 2015-2016, our country was in 43rd place, its indicator was more than two times lower than that of the leaders: Switzerland, Sweden, the Netherlands, USA.

"A new concept of the organization of a structure that produces and uses knowledge as a competitive advantage, in contrast to the concepts that defines the enterprise as a contractual structure that ex-

ists for the coordination of the intentions and conflict prevention" was proposed [Ragulina Y. V., 2009]. Only a few innovative enterprises are developing their own management system according to the principles of the knowledge economy, the majority of industrial enterprises are engaged only in production and not set themselves the task to convert the necessary knowledge in a formalized form.

The number of advanced developments in industry has been increasing slowly, and in 2017 even a decrease had been recorded (Fig. 1). At the State level the strong support was expressed for transition from stimulating innovation to the innovation development on their basis [Decree, 2008]. In fact, the transition is not feasible at least in the medium term, as the statistics reflect the lack of progressive infrastructure development of the knowledge economy in the Russian industry. The reason is the inconsistency of the theoretical approach to the model of the knowledge economy. Correct understanding of the basic terms of knowledge economy by specialists of industrial enterprises is necessary, as well as development of the strategy as a way of organization actions in the knowledge economy.

Currently the strategy of the organization is commonly understood as the systematization of actions at the organizational level, taking into account the influence of external and internal environment in order to ensure balanced growth. The direction of the organization development, the tactics of the strategy and the strategy type are defined by a whole set of factors, among which there are economic specialization, the purpose and objectives of development, stage of life cycle, the current level of competitiveness, etc., Considering the knowledge economy model applied we propose to interpret the strategy as a plan for achieving the goals of the organization within a certain period of time with the use of specific tools, the adoption of procedures and decisions. Such understanding of strategy requires appropriate modernization of the process of its development.

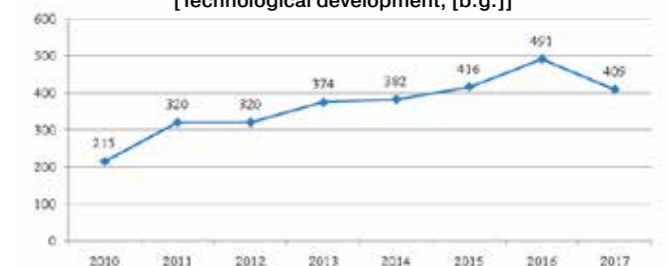
Strategy development is a part of strategic management. Formation of innovative model of strategic management of industrial enterprise on the basis of the model of knowledge management is carried out in an evolutionary way. It is expected a gradual transition from the strategic behavior to strategic planning and then to the transition unified model (in the terminology of I. Ansoffa) [Ansoff I., 2012].

Strategic behavior implies that a company chooses how to act on the market, in accordance with the alleged retaliatory actions of competitors. As a rule, this model of strategic management is specific to small businesses seeking to reduce resource consumption, including strategic planning.

In the literature there is no consensus about the strategic planning process. Overall, strategic planning is considered as a process of developing and implementing the organization's strategy.

One of the problematic issues of the methodology is the mapping of the concepts of "strategic planning" and "planning strategy". Some

Fig. 1. Distribution of new advanced production technologies in manufacturing industries for Russia as a whole in 2010-2017 [Technological development, [b.g.]]



authors allow the equation of the concepts "planning strategy" and "strategic planning", believing that the planning strategy of an organization is a subsystem of strategic management and is the essential basis of the strategic planning process that includes the stages of implementation, followed by strategy evaluation [Abramov A. N., 2010; Gavrilieva K. N., 2016; Gozhenko K. N., 20126]. The equation of the concepts of strategic planning and planning strategy is reasonable, since the purpose of strategic planning is to develop a strategy for planning strategy. Overall, strategic planning is a streaming process that involves flows of information resources, materials and money. Analysis of the stages of these processes also shows the identity of the constituent elements and consistently addressed tasks that allows to make a conclusion about the identity of the planning processes, strategy and strategic planning (Fig. 2).

With regard to industrial enterprise, we will consider strategic planning as the process of implementation of measures to achieve the objectives of the organization during a certain period of time taking into account the specific tools, procedures and decisions and, depending on the external and internal environment of functioning system at a given point in time.

"To effectively integrate models of strategic management and the model of knowledge management is possible only with a single (unified) approach to strategic management model" [Vorobiev A. D., 2018]. A unified approach to strategy development in the framework of the model of knowledge management provides a permanent record of the latest developments in the field of methodology of strategic planning, instrumentation, etc. It is necessary as well to consider the experience of specific industrial enterprises as the necessary foundation of information and analytical support of the strategy development process. A unified approach to strategy development allows one to include into a strategic analysis methodology the expert assessment, which significantly increases, for e.g., the potential evaluations of the socio-economic aspects of the production activities of industrial enterprises. Evaluation of personnel performance, organization of personnel flows (scientific organization of human resources, motivation of staff, etc.) should be considered as a relevant component when targeting the strategic planning of the enterprise on improvement of stream management system processes.

We propose to understand the strategic analysis as a means of converting implicit knowledge about the internal and external environment of the enterprise in the strategic plan of the organization, which involves a continuous exchange of knowledge, experience, skills, data.

Regardless of the specific methodology the central element of the strategy development process is strategic analysis. In the framework of the knowledge economy strategic analysis for industrial enterprises is undergoing significant changes: the tools employed for the assessment of innovative solutions are expanding, individual methods of human capital management are being introduced and procedures for a comprehensive assessment are being included in planning process. Primarily, this is due to the accumulation of experience of the organization, the specifics of production and technological process, the influence of external environment on the operation of the economic entity, etc. Such experience allows us to adjust the methodology of strategy development through the selection of tools most appropriate to the conditions of specific industrial enterprises.

In the approach of the knowledge economy in the development of a unified methodology of the strategy we may consider the possible impact of the crisis conditions that have a high importance for

industrial enterprises. Current methodological approaches to the development of the strategy, as a rule, take into account the factor of the external environment influence, but do not assess the sustainability of the organization. The last term is understood not only as current sustainability, but also as maintenance of it for a certain period of time, i.e. considers the system's ability to resist external influences. Strategic stability of industrial enterprise is the ability to maintain and keep for a long time a certain way of functioning of an enterprise based on the optimization of socio-economic processes and consideration of environmental factors.

Analysis of strategic stability should be included in the strategic planning process as an element of integration with the knowledge economy in order to achieve a synergistic effect from strategy development. The algorithm of strategic planning of the industrial enterprise using the principles of the knowledge economy is represented in Fig. 3.

Analysis and assessment of the sustainability of an industrial enterprise must take into account the previous experience of the organization functioning to form a rating scale of stability for expert assessment of the current level. The use of intra-organizational stability scale instead of comparing with other organizations gives more accurate estimation and allows to generate the forecast of strategic stability of the industrial enterprise. In modern conditions the information-analytical systems of other economic entities, especially competing ones, as a rule, are secured. Maximum use of management accounting data and automated control systems of industrial enterprises will allow to increase the accuracy of the financial and economic assessments of the current state as well as assessment of development prospects.

The result of the development of the strategy is the formulation of the strategic plan of the industrial enterprise. In the knowledge economy strategic plan of the industrial enterprise is adjusted on the basis of expert assessments, empirical data on the dynamics of the company development. The strategic plan is dynamic and is subject to timely adjustment according to the current state of socio-economic and production spheres of industrial enterprise.

In terms of significantly expansion of the use of information and analytical systems, mass adoption of management accounting, the tools of strategy development at all stages of the strategic manage-

Fig. 2. The strategic planning process

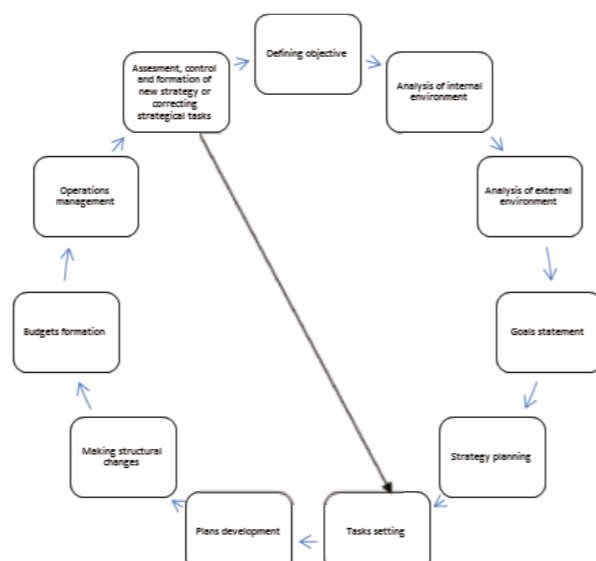
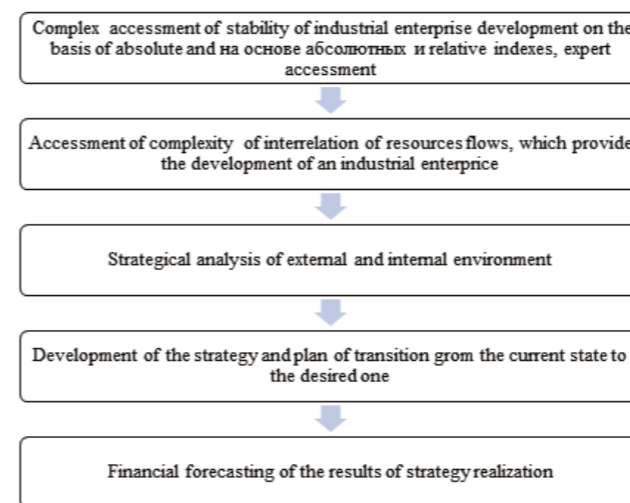


Рис. 3. Алгоритм стратегического планирования промышленного предприятия



ment process undergoes changes, which mainly affects the analysis and evaluation of the external and internal environment, financial planning. In the framework of the knowledge economy it is possible to imagine the development of a strategy in a continuous exchange of knowledge for specific business entities and thereby enhance the effectiveness of strategic management of the organization as a whole. In the development of strategy of industrial enterprise the management must use the previous experience in the assessment of basic economic and financial indicators, proposals of the experts of the company as on the specifics of the production process and in the field of personnel management, logistics, etc.

In this work, we present the author's understanding of strategy as a system of measures to achieve the goals of the organization for a certain period of time, given the specific tools, procedures and solutions. Strategic planning is treated as organization of resources flow through the exchange of knowledge in the system of measures for achieving the goals of the organization over a period of time taking into account the specific tools, procedures and decisions, the external and internal environment of the system functioning. Planning strategy is one of the stages of strategic planning. The algorithm of strategic planning considering integrated assessment of strategic stability, knowledge about the previous states of the company has been proposed.

The use of models of the knowledge economy in the development strategy of industrial enterprises requires highly qualified staff, availability of management accounting system, automated management system, as the individualization of methodology of strategic planning in the framework of this approach requires considerable information and analytical data in a dynamic and relevant competencies for their classification, processing and analysis.

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