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ANALYTICAL PROVIDING OF MONITORING INNOVATIVE DEVELOPMENT OF INDUSTRY THE SOUTHERN REGION

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Масленніков Є.І., Димитрієва М.І. Аналітичне забезпечення моніторингу інноваційного розвитку промисловості південного регіону.

У статті сформовані основні аспекти аналітичного забезпечення моніторингу інноваційного розвитку промисловості. Розглянуті складові інформаційно-аналітичної системи інноваційного розвитку промислових підприємств південного регіону. Для об'єктивної оцінки загального стану виробничого процесу і прийняття ефективних управлінських рішень запропонована комплексна система оцінювання ефективності інноваційної діяльності. На прикладі підприємств промисловості південного регіону показана специфіка і особливості моніторингу інноваційного розвитку та запропоновані шляхи забезпечення його реалізації за допомогою державних організацій в сфері інформаційної діяльності.

Ключові слова: моніторинг, інноваційна діяльність, інноваційний розвиток, інформаційно-аналітичне забезпечення, південний регіон, промисловість

Масленников Е.И., Димитриева М.И. Аналитическое обеспечение мониторинга инновационного развития промышленности южного региона.

В статье сформированы основные аспекты аналитического обеспечения мониторинга инновационного развития промышленности. Рассмотрены составляющие информационно-аналитической системы инновационного развития промышленных предприятий южного региона. Для объективной оценки общего состояния производственного процесса и принятия эффективных управленческих решений предложена комплексная система оценки эффективности инновационной деятельности. На примере предприятий промышленности южного региона показана специфика и особенности мониторинга инновационного развития и предложены пути обеспечения его реализации с помощью государственных организаций в сфере информационной деятельности.

Ключевые слова: мониторинг, инновационная деятельность, инновационное развитие, информационно-аналитическое обеспечение, южный регион, промышленность

Maslennikov Ye.I., Dimitrieva M.I. Analytical providing of monitoring innovative development of industry the southern region.

This article formed the basic aspects of analytical software for monitoring the development of innovative industries. The components of information-analytical system of innovative development of industrial enterprises of the southern region. For an objective assessment of the general state of the production process and make effective management decisions proposed comprehensive system of assessing the effectiveness of innovation. In the example of the enterprises of the southern region shows the specifics of the industry and especially the monitoring of innovation development and the ways of ensuring its implementation by means of state organizations in the sphere of information.

Keywords: monitoring, innovation, innovative development, information and analytical support, southern region, industry

The innovative vector of development becomes an essential part of the strategy of modern economic growth. In the last decades those innovations remain the leading factors, which ensure economic growth and development of both individual enterprises and national economies as a whole. In these conditions the special urgency is got comprehensive consideration of the information and analytical activities, ensuring the level of innovation development, especially at the regional level, and introduction of effective mechanisms for the inclusion of their integrated regional policy for the development of effective mechanism of management innovative potential of industrial development as the main sectors of the domestic economy. The rapid development of market relations, economic processes and the global innovation process contributed to the accumulation in the regional economies of the market reforms and structural changes, which objectively requires the revision of regional policy and changes methodically and analytical approaches to management of innovative development of regions. If you take the regional level, innovation management and research interests focus on development of innovative infrastructure in the regions or the innovation strategy of the region. However, a quality issue requires new, modern information technologies and models that can evaluate individual features of innovative development of the southern region of Ukraine.

Analysis of recent researches and publications

Theoretical aspects of monitoring the innovation process covered in detail in the foreign and domestic literature. Issues of innovation development was studied in the works of such famous scientists like: F. Kotler, Th. Schumpeter, F. Jansen, as well as in the works of domestic scientists B. Andrushkiva, L. Antonyuka, O. Boyka, S. Knyazya, O. Lapko, L. Neykovoyi, S. Khariva, O. Poberezhets, M. Merkulova and many others. The work of scientists aimed at the study of theoretical and practical aspects of innovative activity of economic entities.

Unsolved aspects of the problem

Of great importance for almost all businesses currently have innovation. This statement is true for the industrial complex, which is a priority sector of

the national economy. However, for the implementation and ensuring sustainable innovative development of the necessary informational and analytical support for appropriate innovations, which would include ensuring the process of its formation, implementation, maintenance, and impacts assessment, evaluation mechanism of innovative development of the industry and its reserves. In our opinion, suitable for the study of the southern region, this plays a significant role in the structure of economic complex and is one of the highly developed regions of Ukraine.

The aim of the article is to study the features of formation the analytical providing of monitoring innovative development of industry the southern region.

The main part

Currently one of the priority tasks of the Ukrainian economy is to accelerate economic growth and improve the competitiveness of enterprises. The most important growth driver is innovation development of economic agents, which is impossible without the development of high technologies and implementation of innovations in the industry. These issues should contribute to a system of monitoring the innovation development of economic entities.

Innovation is characterized by changes in the industry of the southern region, which leads to the functioning of enterprises at a new level, resulting in qualitatively new results of activity for a considerable period, and the duration depends on the innovative potential of the introduced technologies. To regulate the process of introduction of innovations necessarily need valid, relevant, and timely information about the current state of the industry, innovation, progress, intermediate and final results. Information support of innovation processes is a system of accumulation, analysis and organization of data and acts as a foundation for making effective managerial decisions in the sphere of innovative development of the industry.

Many studies have formulated the concept of monitoring of innovative activity is defined as "keep track, controlling and forecasting and analytical information management system design and implementation decisions in the management of innovations". In regulating industrial development, the monitoring is responsible for monitoring and maintaining the necessary parameters for optimal performance and is supports system. As for innovation, the functional purpose of the monitoring is determined by the necessity of control over compliance with the specified concept, content and target and process criteria and conditions for implementing innovations, assessing its impact on the industry [1].

The system of information and analytical support is the basis for the formation and implementation of effective national and regional innovation policy. Today developed until the following components of this system:

— the provision of statistical information on innovation activity of industrial enterprises;
— preparation of analytical reports on the state of development of innovation in sectoral and regional context, as well as about results of activity of innovative structures, in particular technological parks;
— the development of scientific papers, conducting research on state innovation and economic policy;
— using a database of scientific organizations, research institutes, foundations, libraries, archives;
— performance information agencies the results of their work.

To implement sustainable information-analytical system of the above components must be in constant interaction with each other that will ensure their coordination. And for the effective management and response of businesses to economic processes in the country and the world, it is necessary to attract part of the information-analytical system of monitoring of innovation development of economy, comparative analysis of the results of implementation of innovations in the relevant field in foreign countries, analysis of the effectiveness of stimulation of innovative and scientific-technical activities, state support mechanisms.

Every innovative development includes not only the primary innovation process, but also development of system of factors and conditions necessary for its implementation (Fig.1).

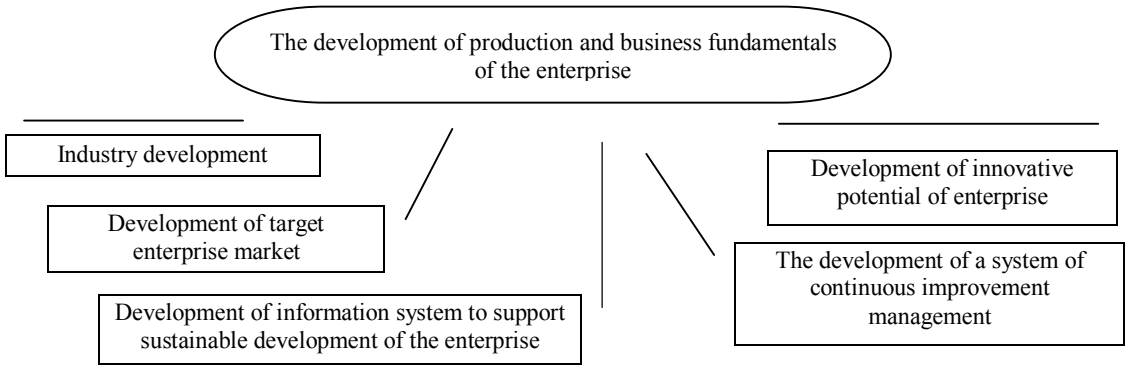

Fig. 1. The main components of a comprehensive innovation development of industrial enterprises
Source: Own elaboration

Among the main components of the process of innovative development of industrial enterprises can be divided into two main implementation of innovative projects and the development of innovative capacity. In determining the overall potential of the enterprise occupies an important place innovative potential, therefore, to control and increase this value to apply a constant measurement of its output parameters. This is necessary to ensure that characteristics of the innovative potential were not given other indicators, for example: scientific-technical, or production-technological potential. In the other case, the actual innovative potential of the enterprise will not be able to stand out and, as a consequence, will not be measured and purposefully develop.

To establish a quality system of management of innovative activity of industrial enterprises of the southern region, you can use these subsystems of internal information:

— subsystem of scientific and technical development engaged in the development and forecasting future needs;
— managed subsystem (object of management) includes functional services, the main and auxiliary production units that implement research and development;
— subsystem for providing the necessary resources for the managed subsystem;
— subsystem (subject of management) is the most complex and significant in the system of management of innovative activities [2].

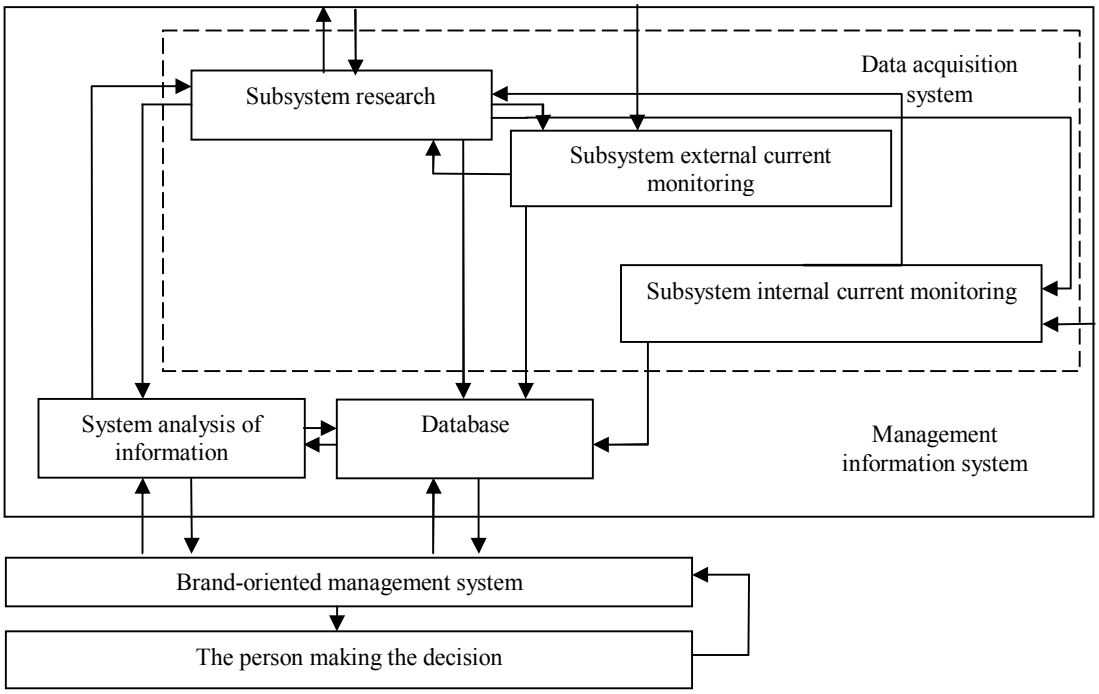

Fig. 2. The interaction of the components the innovation system
Source: Own elaboration

In the innovation system, information is gathered in two subsystems of current monitoring: external and internal. The first aimed to capture changes in the external environment, receiving and analyzing information concerning the market conditions and markets, counterparties, competitors, etc. The second is based on data from reports of enterprises on the overall functioning of the company, its divisions, internal communication channels and in particular of workers (Fig. 2).

Introduction at the industrial enterprises of the southern region information and analytical support of innovative activity is not possible without building the enterprises of the relevant information system. Functioning of information systems in the enterprise helps to invoke a deeper analysis of micro - and macro-economic environment thereby solved not only the basic business tasks, such as defining the target audience, counterparties, markets, competitors, and also defines the perspective directions of innovative development of the enterprise, consumer priorities, market trends, etc. The mechanism of information and innovation support is generated using a semantic modeling. Thus, information and analytical support contains two stage analytical information processing, one of which is at the stage of structuring information, and the other at the stage of system analysis of the performance of the company.

The need for constant monitoring connected with the possible risks that accompany the innovation process. It is at the stage of experimentation and innovation emphasizes the importance of monitoring the process of management of innovative activity.

In a systematic approach to the monitoring of innovation activities of the industry acts as a component of innovation activities and is an information-analytical system, which is responsible for any changes in the system and the external

environment through continuous analysis and collection of information. Monitoring is a necessary element for the functioning of innovative activity in the industry, which responds to changes in the system in the process of innovation, thanks to continuous feedback.

For an objective assessment of the general condition of the production process and making effective management decisions need to take into account also the assessment of the level of innovative development of industrial enterprises. This may include such components as:

— the condition and the composition of innovation resources, which reflects the level of innovation activity determines the availability of the necessary conditions for innovative development of industrial enterprises;
— technological equipment that reflects the upgrade level of production after the introduction of new technological processes enable the manufacture of new products;
— the market component of innovation, which shows the impact on the economy resulting from the use of innovative technologies and the placing on the market of innovative products.

Each of these components has an associated set of indicators that are combined on substantive grounds in the process of innovation development and the impact of which should be considered when assessing the overall level of innovation development of industrial enterprises of the southern region. The system of complex estimation of efficiency of innovative activity at the industrial enterprise is represented in Fig. 3.

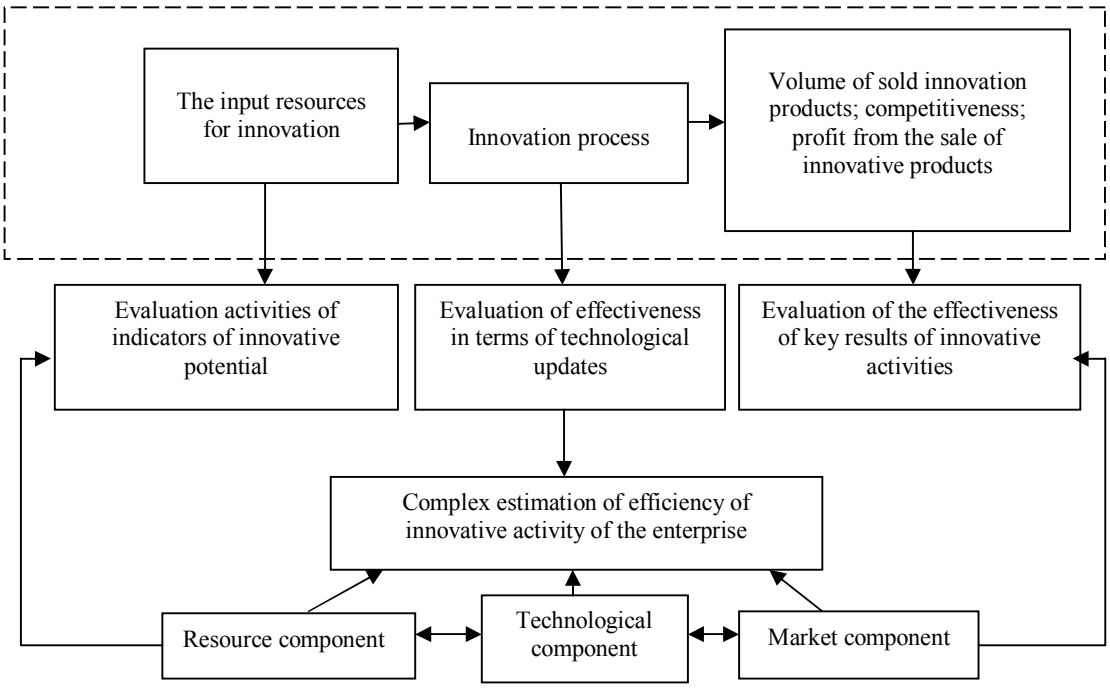

Fig. 3. The system of complex estimation of efficiency of innovative activity the industrial enterprise
Source: Own elaboration

In the management of complex objects, such as an industrial complex South of the region, monitoring the position of the information approach advocates a set of processes of collection, organization, analytical processing, storage and exchange of information. Monitoring of the control on implementation the innovation is formed, as the system at the level of scientific and practical technologies and information-analytical interaction of the components of the innovation process, which is aimed at the optimization of the development system solutions in the management of the innovations and monitoring their results. The technology functions monitoring is a step actions and procedures that define the current state of the monitored object or process, compare it with standards, development of measures for sustainable development in the optimal mode, a constant adjustment process in accordance with the specified parameters.

A significant contribution to the organization of information-analytical activity (IAA), which is part of the system of scientific and technical information (STI) is provided by the activities of the Ukrainian Institute of scientific-technical and economic information (UkrISTEI), which implements the state policy in Ukraine in the sphere of information activities and is the primary scientific organization. UkrISTEI at their disposal has information which provides the important decisions in the sphere of innovation and investment, economic and scientific-technical activities, as well as providing users with information and analytical services on various issues of science, technology, Economics, and more; is looking to order in different databases; legislative

decisions on issues of science, technology, Economics and other.

To accompany innovation processes are very useful may be the following informational databases developed in UkrISTEI:

— integrated database system research and experimental development (R & D) and dissertations;
— "Scientific organizations: suggestions";
— "Scientific and technological achievements and developments";
— "Ukraine Technologies";
— "Ukraine Inventions" [3].

To ensure the use of innovative solutions and inventions based on them, UkrISTEI will be able to coordinate information and analytical work, to determine the rationality of introduction of innovative technologies and to predict impacts on socio-economic factors in the country.

Conclusions

Thus, to create an effective regional management system, obtaining accurate marketing research to support sustainable industrial development of the southern region need reliable and constantly updated relevant information. The information space should link the internal and external environment, helping to create the conditions necessary for unimpeded and rapid transmission of relevant information, and to ensure the adoption of balanced management decisions based on operational and quality data. Having information management the nature of the technology and monitoring provides information and technological support of innovative development of industry of the southern region due to its functions: analytical, corrective-controlling, predictive, information and assessment. The promotion and dissemination of information structures a special purpose on the basis of scientific and technical information in the public system will determine the innovative ability of national projects to forecast their impact and to imagine on a global level. The main goal of development in the country should be the formation of innovative climate of information channels and mechanism of export innovation projects for industrial enterprises, which would increase the rate of adoption of productive innovations.

Abstract

Prelude: Innovative vector development is an indispensable part of modern economic growth strategy. In the last decade, innovation is still the leading factors that ensure economic growth and development of both individual companies and the national economy as a whole. In these conditions special urgency a comprehensive review of information-analytical measures ensure a level of innovation, especially at regional level.

Purpose: Weighted almost all companies today have innovation time. This statement is true for the industrial complex, which is a priority sector of the national economy. However, the introduction of innovative and sustainable development of the necessary information and analytical support for these innovations, which will include support for the process of its formation, implementation, maintenance and evaluation of impacts, assessment mechanism of innovative development of industry and its reserves. Therefore, the purpose of the article is to study the features of formation of analytical support monitoring of innovation development of the southern region.

Methods: Innovating process characterized by changes in the industry of the southern region, which leads to the operation of enterprises to a new level, in which the results obtained qualitatively new activity for a considerable period and the duration depends on the innovative potential of introduced technologies. To control this process requires an objective system analysis tools to obtain operational, reasonable and accurate information.

Results: Monitoring is essential for the functioning of innovation in an industry that responds to changes in the process of innovation, through continuous feedback. The introduction in industrial southern region information and analytical support innovation is not possible without building on relevant business information system.

Discussion: Thus, innovation for sustainable industrial development of the southern region should introduce monitoring which enables to control and adjust the activities of enterprises in accordance with the specified parameters.

JEL Classification: D23, Q13, 14.

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