SCIENTIFIC BASES AND METHODS OF MONITORING OF THE INNOVATIVE DEVELOPMENT OF THE ENTERPRISE

T. Batova and A. Rogalsky
Saint-Petersburg State University of Information Technologies, Mechanics and Optics
Saint-Petersburg, Russia

In article the methods of organization of monitoring of the innovative development of the enterprise are considered, which allow determining the problematic parts of the realization of innovative strategy of development.

Nowadays it is universally recognized that the innovative development of enterprises is precisely the economic forming process. However the regularities of this process are not cleared till the end. From the point of view of the methodological aspects of this problem it is possible to allocate three basic points. Firstly, there are situations when there is no relevant technology (or set of technologies) for some actual problems in a certain interval of time within the framework of the enterprise production system, for the effective solution of contradictions generated by these problems. Secondly, there are situations when the existing scientific-technical and innovation potential cannot ensure an effective realization of available relevant technologies. Thirdly, an attempt to apply the relevant technologies, which are successfully used under the other conditions (regions, branches), don't allow finding out the solution of actual problem under the new situation. Each of three above-mentioned situations is connected first of all with the imperfection of procedure of estimation of innovative potential of enterprises which occupies an important place in the methodological and methodical basis of monitoring. The basis of monitoring consists of three elements: an object of investigation (enterprise), a studied and observed property (characteristic) of this object, an indicator with the help of which the estimation is accomplished.

The monitoring of innovative development represents a flexible dynamic observation system of control over the innovative sphere of enterprise under a certain set of indicators to reveal the tasks in innovation management and to provide different types of innovation.

A complex approach to the study of methodological and methodical bases of monitoring is that the innovative development is considered as an integral object of information observation both in statics and dynamics. The static aspect assumes a calculation and study of all factors exerting influence upon the installing of innovation at the enterprise at a given instant. The dynamic aspect characterizes an advancement of innovations in separate stages of innovative development.

The monitoring of innovative development of enterprise is based on a set of principles, in particular: complexity – is a calculation of different aspects of conducting the monitoring; objectivity – is a calculation and reflection of the specific actual conditions of production and environment; addressing – is a permanent control of the recommended results of the monitoring; efficiency – is a timely representing of actual information; optimality – is an effective relation between quantity of components of

monitoring system and necessary set of assigned functions and others.

The conduction of methods of monitoring of innovative development assumes four stages:

1. Gathering information about the object of investigation using estimation methods.

2. Diagnostics of conditions of the enterprise of investigation according to the set of indicators.

3. Working out the possible variants of innovative development to the short-, middle- and the long-term outlook according to the results of diagnostics of the current conditions of the object.

4. Making the recommendations to provide stable innovative development in accordance with the chosen variant.

The development of a set of instruments for estimation of innovative development forms the methodological base of the monitoring. The estimation of innovative development is the analytical procedure with the help of which the changes of the measured characteristics, determining the innovative development of the object are revealed and studied. The basic methods of estimation include: grouping, the method of dynamics, comparison method, profile method, scale-number estimation, portfolio method, method of interrogation, scientific modeling, cartographic method and others.

For example, the method of interrogation is the operative and dynamic method which operates with qualitative and quantitative estimates and is used for the analysis of weakly-structured problems. For the comparability of data of the examined objects at carrying out the analysis of innovative development using the method of interrogation, a uniform harmonious questionnaire is applied as the way of gathering the desirable information, including changes in production, in stocks, in finance. The comparability of data is being reached by using the standard questionnaire and the standardized estimated scales. This standard solution requires the organization of preliminary preparation and carrying out an experiment to define more precisely and correct the questions. Other standard solutions of this method include: testing and interview.

The variety of methods of estimation of the innovative development of enterprise promotes to obtain precise and reliable estimates by means of a set of indicators giving a representation about the basic properties of the object of investigation to reflect functioning and development of the innovative sphere. The indicator is the estimated characteristic of the object which determines conditions, trend of development and serves as the single element of analysis, prognostication and controlling the object. The following indicators can be carried to the set of indicators of monitoring of the innovative development: wage level of personnel, level of ergonomics of enterprise, age structure of fixed capital, volume-to-capacity ratio, export trade volume of new technology products, profitable growth through innovation, capital structure and others [1, p. 22-23].

For example, the capital structure indicators serve to indicate a share of capital stock, debt and leases, capital invested in the going concern. The external source of funds is characterized by potential possibilities and investment conditions (by size, by cost of debt and leases), the internal source

of funds is characterized by sizes of profit and depreciation charges.

The efficiency of monitoring of innovative development of enterprise is expressed by following criteria: reduction of time to accept administrative decisions, increase in number of innovative ideas, increase in motivation and professionalism of participants of the innovative process, attraction of external sources of funding, shorter-term innovation development, expense reduction [1, p. 21].

The results of monitoring are used both for developing an innovation strategy of enterprise which reflects the maintenance and the basic directions of the innovative development process of enterprise and is directed to support the competitor status of output to the planned prospect and also by regional governments to develop a policy in the sphere of national activity.

The proposed methods of organization of monitoring of the innovative development correspond to requirements of specific-program approach, systems analysis, scientific-technical and economic prognostication in innovation management. The methods allow forming the alternatives of realization of innovative purposes for any enterprise, its subdivisions and completely promote cardinal reconsideration of a role of innovations in the development of enterprise.

REFERENCES

1. Lokhanova V.N. The monitoring of innovative activity of the organization: Informational and organizational-methodical maintenance: the author's abstract of the dissertation of Cand.Econ.Sci. – Moscow: The State University of management, 2003. – 26 p.
2. Solovyev V.P. Innovative activity as system process in competitive economy (synergetic effects of innovations). – Kiev: Phoenix, 2006. – 560 p.