

**METHODOLOGICAL BASIS FOR EVALUATING THE ACTIVITY OF
INFRASTRUCTURES SERVING PRODUCTION INFRASTRUCTURE**

Nurali Holmatovich Bekturodov

PhD., Associate Professor

Tashkent State University of Economics (Uzbekistan)

Annotation. This article provides a wealth of information on the concept of infrastructure assessment. Based on the goals and objectives of the assessment, it includes consideration of its socio-economic and other indicators. In addition, the opinions of scientists about the efficiency indicators of the infrastructure complex are cited.

Key words: experience, monographic, income, infrastructure, institutional enterprise, investment, profitability indicators.

In the innovative development of the infrastructure network, it is necessary to have detailed information about its actual state of development, the development trend compared to previous years, and the level of provision. In general, the concept of "evaluation" implies consideration of its social, economic and other indicators based on the goals and tasks of the evaluated system. Performance indicators can be evaluated through the infrastructure complex's own systems (internal evaluation) and by other institutional enterprises (external evaluation), based on the set goal.

Indicators for evaluating the level of innovative development of infrastructure serving production infrastructure are based on indicators reflecting quantitative and qualitative indicators. Collecting and processing quantitative indicators is somewhat complex, but important in evaluating performance. Methods such as statistical reports and questionnaires can be used to collect quantitative indicators, economic-mathematical, statistical, monographic, experimental, calculation-constructive and modeling methods can be used to process these data.

Quality indicators can be collected through structured interviews and questionnaires. These data reflect the status, interactions and decision-making mechanisms of economic entities.

Evaluating the effectiveness of innovative development of infrastructure related to the production network is a new direction. In the course of the conducted research, in general, the main directions of evaluating the efficiency of the infrastructure network were determined. As a result of the scientific substantiation of this issue, a reliable mechanism for attracting investments to the infrastructure network is based and serves to develop an optimal solution for its development.

The theory of evaluation of reproduction efficiency can serve as a methodological basis for evaluating the efficiency of the infrastructure network. Efficiency, on the one hand, reflects the result obtained as a result of production, distribution, exchange and consumption, and on the other hand, the interaction between labor costs and other costs of society. It is known that there are different manifestations of effectiveness and efficiency: social, economic, political, environmental, etc. But this approach is somewhat complicated when considering the economic efficiency of the innovative development of the infrastructure network, taking into account its specific features.

First, the labor of infrastructure network workers does not always lead to an increase in the final product.

Second, the operation of the infrastructure network usually results in cost savings, resource savings, reduced downtime, and so on.

Therefore, there are different approaches to evaluating the efficiency of the infrastructure network in theory and practice.

Various methods are used to evaluate the effectiveness of investments in the development of infrastructure. The "cost-benefit" method is widely used abroad.

Its essence is that, taking into account the system of social and economic indicators characterizing the result of investment activity, it is the justification of the effectiveness of investments and the impact on the country's economic growth. The advantage of this method is that this method can be analyzed not only at the micro level, that is, in the case of an individual enterprise, but also at the macroeconomic level of investments made in infrastructure based on large programs.

The investment spent on the development of the infrastructure serving the production infrastructure should be directed to increase the economic efficiency of this sector. The method of assessing the economic efficiency of the activity of the infrastructure network serving the production should be the same as in the material production sectors, and at the same time, the specific characteristics of the transaction processes should be taken into account.

When evaluating the effectiveness of the innovative development of infrastructure serving production, the following aspects should be taken into account:

- proportional distribution of investments made for the purpose of development of the infrastructure serving production and the production sector;
- specific features of the organization of infrastructure facilities serving production;
- sources and scale of existing and expected costs in case of insufficient development of infrastructure facilities.

Taking into account the above points, the level of existing and innovative development of the infrastructure is determined.

In modern economic conditions, the indicators and criteria for evaluating the innovative development of infrastructure serving production should meet the following requirements:

- these indicators and criteria should fully reflect the tasks performed by the agricultural infrastructure network;
- the system of indicators should clearly indicate the process of introducing innovative developments, transfer technologies to the network;
- the evaluation indicator and criteria should reflect the effect of the innovative development of the infrastructure on its final product;
- these criteria should clearly distinguish and evaluate the contribution of each subject in the infrastructure to the final result of the activity, that is, each sub-unit should be responsible for the performance of its task;
- evaluation indicators should encourage efficient and quality performance of tasks and services performed by the infrastructure.

It is known that the production service infrastructure has a direct and indirect effect on the development, that is, as a result of the innovative development of the production service infrastructure, it has a positive effect not only on the infrastructure network itself, but also on the economic efficiency of the product production, storage and processing networks.

It is appropriate to classify these indicators of economic efficiency according to the hierarchical level (macro-, meso-, micro-), which allows to estimate the income from the level at which expenses were incurred.

At the macro level, the indicator of innovation is the share of innovation in GDP. There is no direct relationship between this indicator and GDP, but according to the experience of developed countries, the more economically developed the country is, the more money it allocates to innovation and innovative projects, while the higher the amount allocated to scientific research and development, the more the population lives. the higher the GDP per capita.

At the meso level, i.e. at the scale of the region or industry, in particular, when evaluating the level of innovative development in the field of production and infrastructure serving it, the share of innovative products in the gross product of production, the competitiveness index of the manufactured

product and the industry, the amount of funds spent to finance the production of innovative products, etc. evaluated through indicators.

Based on the results of scientific-research works and as a result of the introduction of innovations aimed at increasing its effectiveness and labor productivity in the network and solving social problems in the region, production will be updated from an organizational, economic and technical-technological point of view.

Economic efficiency describes a certain efficiency in the implementation of production relations, ensuring increased reproduction. To determine the economic efficiency of innovations in production, it is appropriate to use indicators such as additional profit, additional gross income, cost savings, additional income, cost of products (by type of products), production profitability (by type of products). It is necessary to use indicators such as gross income and profit per one hectare of cultivated area or one head of livestock (poultry), which allows to determine the economic efficiency of individual types of crops or types of livestock (poultry), to assess the relative efficiency of production in farms.

In determining the economic efficiency of innovations, additional profit is one of the main indicators. Profit is an indicator of value, therefore, when analyzing the dynamics of profit, it is appropriate to take into account the influence of inflationary factors on changes in its amount. For this purpose, the income is adjusted according to the average calculated index of the increase in the prices of the average products in the sectors, and the expenses are reduced by the amount of their increase as a result of the increase in the prices of resource consumption in the analyzed period.

For a more complete analysis of innovations, profitability indicators describing the efficiency of the enterprise's general activity are determined, because the profitability of activities in different directions is extremely important. The need for profitability indicators is that these indicators more accurately describe the final results of economic entities, showing the ratio with the effectiveness of resources used in advance.

In order to analyze the effectiveness of innovations more thoroughly, it is suggested to take into account the following two indicators, which are not included in the above-mentioned system of indicators: the competitiveness of innovative projects and the assessment of received patents and licenses. The need for these indicators is explained by the fact that production is entering market relations, as well as by the increasing competition in the market of production products. The first of the indicators allows to evaluate the competitiveness of the manufactured products, and the second - the economic efficiency of a new type of patented product.

In the conditions of economic liberalization, not only the management and financing of innovative activities, but also the increase in economic efficiency resulting from their utilization is of great importance. From this point of view, determining the economic efficiency of implementing innovations in agricultural production is one of the main tasks.

Taking into account the implementation of structural changes in the economy, an approach to objective requirements that illuminates the factors of scientific and technical development is appropriate for such an analysis. This situation shows the need to use new theoretical and practical methods to determine the economic efficiency of mastering scientific-research and experimental construction works, a fundamental change of economic relations.

Calculation of the economic efficiency of the development of scientific developments depends on a number of factors: the types of scientific and technical products, the field of application, the stages of scientific and technical work, the level of costs of the formation of innovations, the analysis of the results of implementation, etc.

Economic efficiency is mainly calculated according to:

- socio-economic and scientific-technical forecasts, state, inter-sectoral, sectoral and regional scientific-technical programs;

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- technical and economic substantiation of plans for the prospective development of research and development in the fields of production, as well as in contracts for the development of scientific and technical products;

- determination and justification of the economic efficiency of production of new types of products and technologies (new varieties of agricultural crops and new breeds of livestock, agricultural machinery and equipment), determination and implementation of measures;

- evaluation of the effectiveness of planned measures based on the introduction of new technologies;

- calculating the real economic efficiency of the measures;

- calculation of the economic efficiency of the measures on technical production and prices of scientific and technical products. The perspective, project, plan or real effect is calculated depending on the stage of issues related to the creation, production and introduction of new types of products (techniques). Prospective efficiency is determined in cross-industry and sector-by-industry forecasting, as well as in feasibility studies.

Project effectiveness is calculated at the stage of formation of technical issues and necessary conditions in conducting scientific research and experimental design work.

Planned efficiency is calculated in the processes of creation, introduction and production of new types of products (technologies).

Real efficiency is calculated based on the results of implementation of innovations.

The effectiveness of the implementation of the measures differs by its purpose, the types of the main analyzed indicators, the basis of comparison, the depth of calculations, the number and accuracy of the initial data, and the methodology of their determination.

At the current stage of production-related reforms, indicators describing the implementation of innovations are of great importance.

When determining the effectiveness of adopting innovations in the production process, taking into account the specific characteristics of production, they can be divided into several: technological, economic, social and ecological systems.

Economic efficiency describes a certain efficiency in the implementation of production relations, ensuring increased reproduction.

Indicators of technological efficiency are used to clarify the level of use of land, labor and material resources.

In contrast to economic indicators, indicators of technological efficiency of innovation implementation in agriculture and animal husbandry sectors are different. The main indicators that determine technological efficiency are: yield of agricultural crops (in crop production), productivity (in animal husbandry), stock availability, stock return, gross agricultural product in comparative estimates, productivity of machines and aggregates, energy availability, electricity availability, machine and equipment prices and performance.

Indicators of technological efficiency have a simple enough appearance when comparing the database and data obtained during the implementation of innovations, that is, most of them are natural indicators. When determining technological efficiency, it is necessary to take into account not only the quantitative indicators of product production, but also natural loss in farming, quality categories, stability of productivity in animal husbandry, the share of products by quality categories (breed of cattle, average fat content of milk). When analyzing the effectiveness of innovation adoption, it is necessary to take into account the factor of labor resources. The successful introduction of innovations into practice depends to a certain extent on the skills and interest of the labor team, as well as the levels of mechanization, automation and computerization of production processes. It is also necessary to increase the material well-being of workers as a result of the implementation of innovations. In order to determine social efficiency, the following indicators should be used:

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- share of manual labor;
- share of workplaces in unfavorable working conditions;
- implementation of health care measures;
- the number of qualified specialists with a category.

In the analysis of the effectiveness of the implementation of innovations in the conditions of economic liberalization, it is important to determine the environmental efficiency. This category of indicators sheds light on the impact of certain types of innovative developments on the environment and represents the movement of funds aimed at improving the environmental situation in the area where the project is implemented, the main indicators of which were calculated as follows:

- use of the funds provided for in the project, aimed at environmental protection;
- the volume of labor and material costs related to environmental protection.

Production efficiency increases as a result of innovative development of production and the infrastructure network serving it. In order to accelerate this process, it is necessary to provide socio-economic conditions that encourage the use of new means of development and intensification.

In general, many factors affect the economic efficiency of production and infrastructure serving it, and it is a collective indicator. Currently, indicators of economic efficiency are used according to the type of separately manufactured product, but determining the efficiency obtained as a result of the innovative development of the integrated network is quite complicated due to the influence of different resources in the production process. Therefore, it is important to develop indicators that reflect the level of innovative development of production networks and infrastructure facilities serving it.

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