



## THEORETICAL APPROACHES TO THE DEVELOPMENT OF PRODUCTION INFRASTRUCTURE BY REGION

**Nurali Holmatovich Bekmurodov**

PhD., Associate Professor

Tashkent State University of Economics (Uzbekistan)

Article history:	Abstract:
<b>Received:</b> 11 <sup>th</sup> April 2023 <b>Accepted:</b> 20 <sup>th</sup> May 2023 <b>Published:</b> 26 <sup>th</sup> June 2023	<i>The article discusses the theoretical aspects of the study of the production infrastructure of the region: the essence of the concepts of "infrastructure" and "industrial infrastructure" is revealed, the signs, functions and principles of an effective system of the production infrastructure of the region are formulated.</i>
<b>Keywords:</b> <i>infrastructure, types of infrastructure, industrial infrastructure of the region, types of industrial infrastructure of the region, infrastructure functions.</i>	

At present, in Uzbekistan, the problem of providing the regions with modern infrastructure facilities, the effective functioning of which is recognized as one of the factors of competitiveness, is becoming a real "stumbling block" for further economic growth, urgently requiring close attention from public authorities. The production infrastructure of the region, as one of the types of infrastructure, performs an important function of forming and ensuring sustainable relations between economic entities, which emphasizes the particular importance of its development, expansion and renewal as a necessary condition for further increasing the efficiency of the reproduction process.

Despite a sufficient volume of literature on the issues of infrastructure development, the term "infrastructure" remains an insufficiently clear concept, which entails the ambiguity of the term "industrial infrastructure of the region".

In Russia, there has not been a concept similar to the Western "public works" ("public services and facilities"), including roads, airports, water transport, water supply and sewerage, solid waste management and public transport (mass transit systems). The lack of a unified approach to determining the composition of the infrastructure complex leads to the absence of an official statistical methodology for measuring the indicators of infrastructure development and its contribution to national income, which is expressed in the use of various indirect indicators by economists to characterize the infrastructure provision of the region. In this regard, the analysis and assessment of the state and degree of infrastructure development should always be preceded by a clarification of the concept and the allocation of specific elements.

In the economic literature, two established approaches to the definition of infrastructure can be distinguished:

1. From a material point of view, infrastructure is defined as a set of objects (structures, buildings, networks, etc.). For example, E.B.Alaev defines infrastructure as "a combination of existing structures, buildings, networks and systems that are not directly related to the production of material goods, but are necessary both for the production process itself (industrial infrastructure - transport, communications, power supply networks, water supply, etc.), and for ensuring the daily life of the population (social infrastructure - health care, education, culture, consumer services)" [1, p. 232];

2. From an industry point of view, infrastructure is defined as a complex of interrelated industries. V.N. Stakhanov emphasizes that "the country's infrastructure complex is a dynamic system formed as a result of the integration of certain sectors of the national economy and activities, the main purpose of which is to create general conditions for the functioning of production and human life" [4].

Both of these approaches are not mutually exclusive or contradictory. On the contrary, when considering them, a holistic picture is created, which makes it possible to definitely state that when studying infrastructure, the subject of research is not only material objects, but also social relations. In addition, both approaches emphasize the main target function of infrastructure - the creation of the necessary conditions for the functioning of economic entities of material production.

A feature of the infrastructure sectors is the emergence of positive external effects, which manifest themselves not directly in increasing the profits of the infrastructure organizations and enterprises themselves, but in reducing costs and increasing the efficiency of industries using their services. This causes the complexity of assessing the effectiveness of the

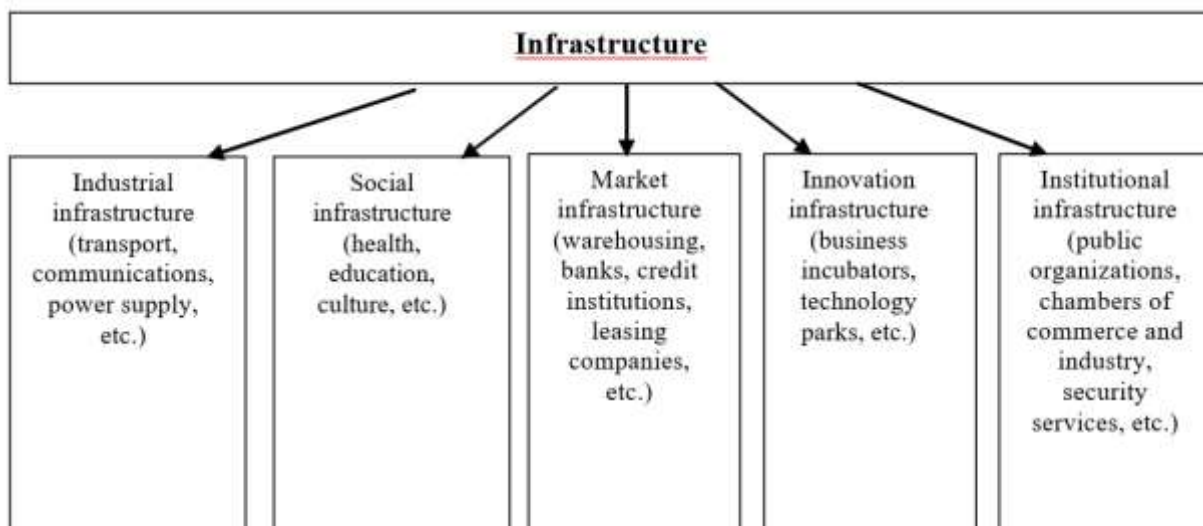
functioning of infrastructure and infrastructure investments, which is determined not only in relation to the characteristics of infrastructure facilities, but also to a greater extent in the impact on the development of production and, in general, on the economic growth of the region.

It is at the regional level that there is a need to study and analyze the infrastructure, since the infrastructure serves consumers in a specific limited area. In addition, due to geographical features, the characteristics of infrastructure elements vary greatly between the regions of the Republic of Uzbekistan. Obviously, the need for infrastructure facilities, their quality requirements and development indicators will vary significantly between, for example, the capital Tashkent and Termez or Nukus. However, the boundary between local, regional, national and international types

of infrastructure is often quite arbitrary: for example, some elements can be attributed to both national and regional infrastructure.

The infrastructure of the region is usually divided into production, which ensures the production process, and social, which ensures the normal process of people's life. At the same time, the social infrastructure includes healthcare facilities, education, culture, etc. To the production infrastructure - roads, railways, auto, air, rail and water transport, electricity, water, gas supply, communications, information services.

Taking into account the diversity of the elements that form the infrastructure complex, it seems appropriate to identify additional types of infrastructure: market, institutional and innovative (Fig. 1).



**Fig. 1. Infrastructure structure by functional feature**

Market infrastructure is associated with the formation of various markets and the emergence of new market functions, is defined as "a system of institutions and organizations that ensures the free movement of goods and services in the market" [2]. In general, it includes warehousing, banks, stock exchanges, insurance companies, credit organizations, consulting services, leasing companies, etc. [5], [6], [7], [8].

The concept of innovation infrastructure includes such elements as business incubators, technology parks, small innovative companies, etc., that is, elements that contribute to the development and implementation of scientific and technical developments in the production process, thereby increasing the competitiveness of enterprises.

The institutional infrastructure is formed by institutions that provide non-productive services of a

managerial, law enforcement, protective nature, etc. [9], [10], [11], [12]. These include public organizations, governing bodies, antimonopoly organizations, security and internal affairs services, etc.

The listed types and elements of infrastructure interact with each other, form an infrastructure complex and act as a "mutual infrastructure" for each other, providing the necessary infrastructure services [13], [14], [15], [16]. The production infrastructure in the general conditions of regional development performs important economic tasks, acting as the "foundation" of the functioning of enterprises. It directly serves the production process, providing it with the necessary support services. This is the main functional purpose of the production infrastructure of the region - to ensure the conditions for a continuous reproduction process.



The industrial infrastructure of the region has a number of properties and features that make it possible to determine its composition most accurately, which is extremely necessary for further analysis and research:

1) providing, supporting, auxiliary in relation to the main production, in which, as mentioned earlier, the intended purpose of the infrastructure is manifested. So, V.P. Krasovsky notes: "The infrastructure does not produce a product in material form, but only creates the conditions for its production" [3, p. 45];

2) the presence of a significant positive "external effect", manifested in the acceleration of the turnover of working capital, the exchange of goods between producers, suppliers and consumers, in reducing the costs of transportation and delivery of goods, material assets;

high capital intensity and capital intensity of infrastructure facilities, long period of creation and payback of investments;

1) on the one hand, the "secondary" nature in relation to the production process is manifested in the fact that the infrastructure sectors as such do not produce a product in material form. On the other hand, infrastructure is of an antecedent nature due to the fact that it is a prerequisite for the creation and development of enterprises;

2) territorial character. The production infrastructure of the region is "tied" to a specific territory, serves enterprises and provides communications within the region;

3) the consumption of infrastructure services has the character of simultaneity on the part of several users and identity on the part of several economic sectors.

The definition of production infrastructure can be formulated as follows: the production infrastructure of a region is a complex of interrelated elements of the national economy that provide external conditions for the flow of the production process.

As part of the production infrastructure of the region, in turn, three groups of infrastructure can be distinguished, combining elements that are homogeneous in type and purpose [17]:

1) transport infrastructure;

2) information and communication infrastructure;

3) energy infrastructure.

The production infrastructure is a prerequisite and foundation for the socio-economic development of the region through the implementation of its main functions:

1. a supporting function, which is the main target function of the infrastructure, manifested in

ensuring the normal flow of the production process, providing it with the necessary material and intangible resources;

2. communication function, which consists in the formation and maintenance of relations between economic entities, combining them into a single complex;

3. investment function, which manifests itself in the following: the production infrastructure of the region is one of the elements that determine its investment attractiveness, due to the fact that the availability of infrastructure elements, their degree of development and the cost of use are factors that influence the investor's decision when choosing a location region new production;

4. social function, which reveals itself in two forms:

5. ensuring employment of the population by creating jobs when creating new infrastructure facilities and maintaining existing jobs during the operation of these facilities;

6. performance of functions to provide the population with the services necessary to ensure the normal course of human life, - transport services, utilities, communication services.

Based on the features and functions of the production infrastructure, it seems possible and necessary to form the basic principles for building an effective system of the region's production infrastructure. These principles should be:

- the availability of infrastructure, which is manifested in its ability to provide its services to the needs of economic entities of a given territory. This principle is revealed in two aspects: territorial proximity and affordable cost of use;

- reliability of the infrastructure, which means the presence of the minimum possible risks of unforeseen failures, emergencies, delays in its operation, and, consequently, in ensuring the normal and timely process of reproduction and exchange of goods. The reliability of the infrastructure is provided by two factors: quality characteristics and speed of service;

- contingency, the principle of contingency is implemented, on the one hand, in ensuring the conformity of the development of the infrastructure elements of the industries it serves, and on the other hand, in ensuring a balance between the main elements of the infrastructure itself. Thus, the pace of infrastructure development should not lag behind the pace of development of the industrial complex and the economy as a whole, otherwise, the region experiences "infrastructural insufficiency", which becomes an obstacle to further development.



The considered aspects of the functioning of the industrial infrastructure of the region confirm that the provision of a particular region with high-quality infrastructure is one of the factors of its economic development. Therefore, in modern conditions it is extremely important to pay due attention to the maintenance of existing and the creation of new infrastructure facilities.

#### REFERENCES:

1. Alaev E.B. Socio-economic geography. Conceptual-terminological dictionary. - M.: Thought, 1983. - 350 p.
2. Ilchenko A.N., Abramova E.A. Assessment of the infrastructure potential of the region // Modern science-intensive technologies. Regional application. - 2010. - No. 2. - S. 28–35.
3. Krasovsky V.P. Infrastructure and intensification of the economy. – M.: Nauka, 1980. – 192 p.
4. Stakhanov V.N. Economics of social production infrastructure: Textbook. - Rostov-on-Don: RISHM, 1989. - 130 p.
5. Tukhtabaev J.Sh. Conceptual Fundamentals of Diversification of Production in Farms to Ensure in Food Security and Poverty Reduction. Asian Journal of Technology & Management Research (AJTMR), 2020.
6. Tukhtabaev J.Sh. Labor protection in ensuring economic security of industrial enterprises. Economics and Innovative Technologies 2021(4), 5.
7. Tukhtabaev J.Sh. The role of the education system in the functioning of the labor market. 2009.
8. Tukhtabaev J.Sh. Analysis of the Influence of Dynamics and Structure of Export and Import on Economic Security. Asian Journal of Technology & Management Research (AJTMR), 2021.
9. Tukhtabaev J.Sh. Foreign experience in increasing the investment attractiveness of metallurgical enterprises in the regions. Theoretical & Applied Science. 2022.
10. Bondarskaya O.V., Tukhtabaev J.S. The Impact of Digitalization on the Safe Development of Individuals in Society. Internet of Things, Smart Spaces, and Next Generation Networks and Systems: 22nd International Conference, NEW2AN 2022, Tashkent, Uzbekistan, December 15–16, 2022, Proceedings.
11. Tukhtabaev J.Sh. Econometric Assessment of the Dynamics of Development of the Export Potential of Small Businesses and Private Entrepreneurship Subjects in the Conditions of the Digital Economy. Internet of Things, Smart Spaces, and Next Generation Networks and Systems: 22nd International Conference, NEW2AN 2022, Tashkent, Uzbekistan, December 15–16, 2022, Proceedings.
12. Tukhtabaev J.Sh. Econometric modeling and forecasting of the increase in the export potential of small businesses and private enterprises in the Republic of Uzbekistan. Proceedings of the 6th International Conference on Future Networks & Distributed Systems.
13. Tukhtabaev J.Sh. Econometric analysis of evaluation of investment projects implemented in the northern regions of Uzbekistan. Proceedings of the 6th International Conference on Future Networks & Distributed Systems.
14. Tukhtabaev J.Sh. Econometric assessment of prospects of ensuring food safety in Uzbekistan. Proceedings of the 6th International Conference on Future Networks & Distributed Systems.
15. Tukhtabaev J.Sh. Analysis of investments in fixed capital in the context of the development of digital economy in the Republic of Uzbekistan. Proceedings of the 6th International Conference on Future Networks & Distributed Systems.
16. Tukhtabaev J.Sh. Socio-economic necessity and prospects for the introduction of the digital economy. Proceedings of the 6th International Conference on Future Networks & Distributed Systems.
17. Tukhtabaev J. Sh. The development of the digital economy as a factor in increasing the consumer basket of the population (on the example of the Tambov region). Proceedings of the 6th International Conference on Future Networks & Distributed Systems.