

Narmina Guliyeva Allakhverdi
PhD Candidate,
The Economic Scientific Research Institute
of the Ministry of Economy

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DEVELOPMENT STRATEGIES OF INDUSTRIAL CLUSTERS

The primary objective in the development of the industrial sector is to produce high-tech, knowledge-intensive, competitive, export-oriented industrial products that meet international standards within the country. It also aims to enhance the system of state regulation in the industrial complex, identify and increase investment sources and resources, and mobilize natural resources and labor force through specific measures to achieve the sustainable and continuous development of the industry.

The Fourth Industrial Revolution, which accelerates the transition to digitization and artificial intelligence, has led to the emergence of new forms of production organization, resulting in reduced production costs, increased labor productivity, and enhanced production processes. Along with this, clusters help improve the efficiency of industrial processes and productivity in the industrial sector, reduce production costs, attract investors, and accelerate industrial development. The formation and development of clusters is one of the key indicators of economic growth for industries, as well as for countries and regions as a whole.

The key feature that distinguishes clusters is the inclusion not only of commercial enterprises but also of various research institutes, science centers, universities, infrastructure service organizations, vocational training institutions, technical support organizations, independent consultants, chambers of commerce, and development agencies [2].

The activities of clusters create a favorable environment for the development of small and medium-sized enterprises. The joint use of raw materials and equipment, attracting investments, access to a skilled workforce, information and knowledge exchange, cost reduction, and other factors help these enterprises achieve overall benefits. As a result, collective efficiency is achieved [4].

The formation and emergence of clusters support social and economic development. Specifically, they contribute to the creation of new entrepreneurs, the revitalization of public structures, the formation of new employment opportunities, and an increase in productivity. Furthermore, with the increase in production capacity, they lead to an influx of foreign currency into the country and enhance the competitiveness of the national economy. Clusterization also fosters sustainable growth in the industry, contributes to the expansion of international economic relations, and supports the broader participation of the country in the global economy [1; 3].

The creation of industrial clusters requires important factors such as the geographical suitability of the area, the abundance of natural resources, the presence of a scientific base, professional personnel, and developed infrastructure. In addition to these, for industrial clusters to operate sustainably, reliably, and productively, the government's cluster policy must be comprehensive and supported by effective mechanisms. In this case, the government must first develop a targeted cluster strategy, and this policy should include specific approaches to clusters and their application models, defining goals and tasks, and identifying priority areas for action. Furthermore, the state support mechanisms for the creation and operation of clusters should be based on progressive global practices and aligned with the strategic economic development directions of the national economy.

The formation of the main mechanisms for creating industrial clusters follows processes based on principles of sequence and mutual interaction. Clusters consist of multiple diverse structures, with the primary participants being producers of goods and final products, suppliers of specialized raw materials, semi-finished products, equipment, spare parts, and other essential components, as well as financial institutions. The participants include small and medium enterprises, private and state service providers, educational and research centers, business groups and associations, large businesses, financial institutions and banks, non-governmental organizations, and governmental agencies.

Industrial clusters constitute a crucial part of regional competitiveness. Additionally, the creation of industrial clusters contributes to the generation of new jobs and the development of economic growth [5].

In the modern era, industrial clusters create a more favorable innovation environment for industries. The competition and cooperation within these clusters increase innovation activity.

The main factors through which industrial clusters impact the competitiveness and innovation activity of the national economy are as follows:

- Faster access to information related to innovations;
- Quicker learning of innovations;
- Skilled labor exchange between firms;
- More efficient organization of market networks;
- Formation of regional value chains;
- Increase in the diversity of national brands and products;
- Improvement in the level of domestic demand fulfillment;
- Ensuring the beneficial and maximal use of local resources.

The key factors for establishing industrial clusters include geographic suitability, abundance of natural resources, availability of scientific infrastructure, skilled workforce, and the presence of developed infrastructure. Along with these, for industrial clusters to function effectively and sustainably, the government's cluster policy must be well-structured and supported by functional mechanisms. The first priority should be for the government to develop a targeted cluster strategy, which should reflect specific approaches to clusters, their application models, objectives, tasks, and prioritized development directions. Additionally, state support mechanisms for the creation and operation of clusters must be based on progressive global practices and be aligned with the strategic economic development directions of the national economy.

The processes for forming the primary mechanisms of industrial cluster creation are implemented based on principles of sequence and mutual development. While clusters may consist of various structures, the main participants include producers of products and final goods, specialized raw materials suppliers, as well as providers of necessary semi-finished products, equipment, spare parts, other essential components, and financial organizations. Among the participants in these processes are small and medium-sized enterprises, private and state service providers, educational and research centers, business groups and associations, large

enterprises, financial institutions, banks, non-governmental organizations, and state-owned institutions and structures.

Thus, the creation of industrial clusters serves as one of the main pillars for the socio-economic development of the country by increasing the competitiveness and innovation activity of the national economy.

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