



THE ESSENCE OF CLUSTERING IN THE ECONOMY AND ITS ROLE IN ECONOMIC DEVELOPMENT

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Abstract. This thesis examines the concept and essence of clustering in the economy, its formation characteristics, and its role in economic development. Particular attention is paid to the importance of clustering in increasing production efficiency, accelerating innovation processes, developing value-added chains, and ensuring the competitiveness of regions. The study also substantiates the growing role of clusters not only in industry and agriculture but also in services, information technologies, tourism, and other knowledge-intensive sectors. The prospects for the development of clustering in Uzbekistan and several conditions for its effective organization are also considered.

Keywords: cluster, clustering, economic development, competitiveness, innovation, value-added chain, regional development, economic efficiency.

In the context of globalization, ensuring the economic competitiveness of countries and regions increasingly depends not only on traditional factors of production but also on cooperation among enterprises, collaboration with research institutions, the introduction of innovations, and regional specialization of production. In this regard, clustering has emerged as one of the important directions of modern economic development. The cluster approach implies the functioning of interconnected enterprises, suppliers, service providers, research and educational institutions, and other economic actors as an integrated system rather than as isolated entities [1].

The formation of cluster theory was significantly influenced by Alfred Marshall's views on regional specialization and the concentration of production. Later, Michael Porter developed the cluster approach in connection with the theory of competitiveness. According to this approach, the concentration of interconnected enterprises and institutions within a particular territory creates favorable conditions for the exchange of knowledge and experience, efficient use of labor resources, and acceleration of innovation processes [2].

The Economic Essence of Clustering

The concept of a “cluster” is used in economic literature to describe the geographical or functional concentration of interconnected entities specializing in a particular type of economic activity. The main feature of clustering is that its participants, while remaining independent economic entities, cooperate with one another at different stages of the value creation process. Such a system makes it possible to integrate processes ranging from the supply of raw materials to production, processing, marketing, and sales [1].





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Clustering differs from an ordinary association of enterprises due to its systemic nature. A cluster may include large and small enterprises, suppliers, financial institutions, higher education institutions, research centers, technology parks, and public authorities that establish mutually beneficial relationships. As a result, opportunities for joint use of production resources, exchange of information and knowledge, and cooperation are expanded [1].

The economic essence of clustering cannot be explained solely by geographical proximity. With the development of digital technologies, modern clusters are also emerging in the form of virtual environments, technology parks, and innovation centers. Particularly in the service sector, knowledge exchange, the concentration of skilled labor, shared digital infrastructure, and innovation cooperation play an important role in cluster development [3].

The Role of Clustering in Economic Development

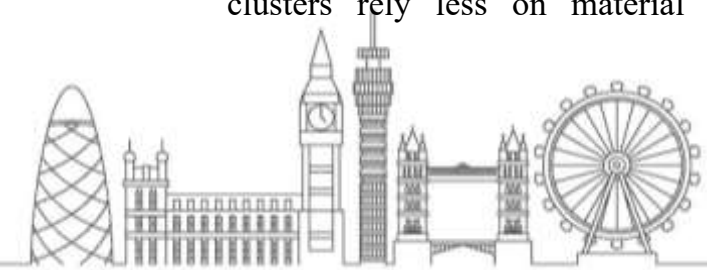
The primary importance of clustering for economic development is associated with increasing production efficiency. The concentration of interconnected enterprises within a particular region makes it possible to reduce transportation and information exchange costs, coordinate production processes, and use available resources more efficiently. As a result, not only the efficiency of individual enterprises but also the effectiveness of the entire economic system increases.

Clustering also creates a favorable environment for innovation. Close cooperation among enterprises, higher education institutions, and research organizations facilitates the rapid transfer of new knowledge and technologies into production. Studies on clusters in the service sector likewise identify knowledge spillovers, the concentration of specialized labor resources, and the shared use of digital infrastructure as important factors contributing to innovation activity [3].

Clustering has a direct impact on regional economic development. Clusters established on the basis of a region's available natural, labor, production, and infrastructural potential make it possible to involve local resources more extensively in economic activity. This may lead to the creation of new production capacities, increased employment, and expansion of the region's export potential. Cluster policy is particularly important as a tool for deepening value-added chains and increasing regional competitiveness [4].

Another important feature of clustering is the simultaneous existence of competition and cooperation. Cluster participants compete with one another in the market while cooperating in areas such as common infrastructure, research and development, skilled human resources, and information exchange. This combination creates a synergistic effect within the cluster. Consequently, opportunities arise to reduce costs, increase productivity, and enter new markets [1].

Under modern conditions, clustering is also becoming increasingly important in the service sector. In IT, financial services, tourism, and other knowledge-intensive industries, clusters rely less on material resources and more on knowledge, skills, digital





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infrastructure, and the proximity of professional networks. Research indicates that the success of service clusters is closely associated with inter-firm cooperation, the use of digital technologies, and the quality of the institutional environment.

Characteristics of Clustering Development in Uzbekistan

In Uzbekistan, clustering has developed particularly rapidly in agriculture and the textile industry. The introduction of the cluster system is aimed at integrating different stages of production into a single technological chain, ensuring deeper processing of raw materials, and producing goods with higher added value.

Cotton-textile clusters clearly demonstrate the integration of agriculture and industry. In this system, cotton production, processing, and the manufacture of finished products are interconnected. As a result, instead of exporting raw materials, opportunities for their deeper domestic processing and the creation of higher added value are expanded.

At the same time, it is important to consider the actual economic potential of a region when establishing clusters. Factors such as natural resources, labor market characteristics, the existing production base, infrastructure, and market demand must be thoroughly assessed. Clusters established without sufficient consideration of these factors may fail to produce the expected economic results. Therefore, cluster policy should be based on regional specialization and existing economic opportunities [4].

Cooperation between the public and private sectors also plays an important role in the sustainable development of clusters. The role of the state should primarily consist of creating a favorable institutional environment, developing infrastructure, supporting research and innovation, and establishing appropriate conditions for business rather than directly managing economic activities. Turakulov also emphasizes that the effectiveness of cluster policy depends on public-private partnerships, integration with research institutions, innovation support, and the development of digital infrastructure [4].

In general, clustering is one of the effective forms of organizing production and service activities in the modern economy. Its main essence lies in establishing stable economic relationships among interconnected business entities, research and educational institutions, financial organizations, and public institutions in order to create a common competitive advantage.

The role of clustering in economic development is manifested through increased production efficiency, accelerated innovation, creation of new jobs, development of value-added chains, and strengthening of regional competitiveness. Particularly in the context of the digital economy, clusters increasingly rely not only on traditional geographical proximity but also on knowledge exchange, digital infrastructure, and innovation cooperation.

In Uzbekistan, further development of clustering requires a comprehensive assessment of existing regional specialization, strengthening cooperation between production and research institutions, development of skilled human resources, expansion of innovation infrastructure, and creation of a stable institutional environment for cluster participants. In





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this process, clusters should not be established solely through administrative decisions; rather, they should be formed on the basis of market demand and the actual economic potential of the region. An effective cluster policy can contribute not only to the efficient use of regional resources but also to the development of an innovative economy and high-value-added production.

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