



Formation of a Construction Cluster in the Development of the Field of Building Materials

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Abstract: In this scientific article, the formation of a construction cluster in the development of the construction materials industry, through the organization of cost-effective production in the production of construction materials, the ways of increasing the economic efficiency, the existing problems in the development of the field, and the proposals and recommendations for their elimination are developed.

Key words: construction industry, building materials, cluster concept, production costs, production, lean production, re-production, management efficiency, labor resources, enterprise, organization, competitive market, management mechanism, localization of production.

Introduction. Today, the need to modernize the construction industry and the development of a network strategy in this regard are gaining urgent importance. In the development of the field of construction materials, the formation of a construction cluster and the creation of innovative forms of labor cooperation between enterprises, which allow for the efficient use of production resources and sustainable development, are required.

A characteristic feature of the construction cluster in the development of the building materials industry is targeted entrepreneurial activity. Combining the efforts of construction companies, executive authorities, financial organizations and research institutes at the regional level ensures the development of the construction complex, helps to rationalize the production process of products and services. In addition, it allows to redistribute risks and implement a flexible risk management policy in rapidly changing economic conditions of the enterprise. In countries with a developed market economy, such a combination of efforts to increase competitiveness by construction companies has been quite successful.

In the scientific literature, there is no single or general methodology for evaluating the effectiveness of cluster practice. In the mathematical models used in different countries, the general and private economic results of enterprises participating in clusters are evaluated with the help of quantitative and qualitative indicators. Through these models, existing problems are identified and future plans are defined. However, they do not quantify the general socio-economic results arising from the basic characteristics of cluster relations, in particular, they do not evaluate the cluster management system, they do not take into account the savings of transaction costs, the effectiveness of inter-industry relations, and the social aspects of development.

In the development of the building materials industry, investment construction clusters are formed in connection with the fact that the activity of the construction complex serves for the implementation of investment processes. The main entities of the regional investment construction cluster include small, medium and large construction enterprises, intermediary services and construction work

supply service providers, market infrastructure organizations (credit, insurance, leasing, logistics companies, sales intermediaries, real estate firms), scientific research and education. institutions; professional and public associations, trade and industry departments, the infrastructure of the cluster (cluster council, business incubators, small business support funds, etc.).

The number of construction material mines in the republic is 526, of which 19 percent, i.e. 99, correspond to the Fergana region. There are 236 working mines in the country, of which 20.8 percent or 49 are located in the Fergana region, the main part of which is brick raw material. There are 49 brick raw material mines, 24 sand gravel mines, and 5 limestone and decorative stone mines for lime production. The main resources are located in Fergana and Namangan regions (40 and 37 respectively), and Andijan region is the region with the fewest construction raw material deposits in the region.

11,368 investment projects to be implemented in the country during 2020-2022, approved according to the minutes of the meeting on the results of the visits of the President of the Republic of Uzbekistan to the regions, of which 1,411 correspond to enterprises producing construction materials.

Cluster relations can be formed within the territory and network, as well as on the basis of corporate governance. Options with state participation in the formation of clusters should be highlighted. In all cases, clusters function as integrated structures. At the moment, based on the current economic situation, it is desirable to organize clusters within the framework of public-private partnership.

Analysis of literature on the topic. In modern conditions, regional clusters uniting a group of interrelated industries, i.e., a complex of enterprises based on the territorial union of raw material suppliers and producers of finished products connected by a technological chain, is an important form of cooperation. "In the modern concept of business entities, the traditional division of the economy into sectors or sub-sectors is losing its importance. In the first place is the system of relations between enterprises and organizations, creation of strategic alliances, application of cluster approach".[1]

In the territory of the republic, the regional cluster, in comparison with traditional production complexes, is based on the market principles of the organization of production and provision of services as much as possible. A cluster is an effective mechanism of industrial cooperation, because the initiators of such associations are created by industrial enterprises that realize the need to unite in various forms to create competitive advantages.

In order to clarify the content of the cluster approach in construction, it is appropriate to consider the evolution of the cluster concept. Formation of the theory of clustering of regional economic sectors. It is closely related to the works of Porter. M. Porter examines the factors that ensure competitiveness not only for individual companies, but also for entire industries, regions, and countries. These companies compete on their performance. According to Porter's definition, a cluster is an intermediate concept that refers to groups of related companies and industries that are concentrated in one area and benefit from interaction. According to Porter: Clusters are "productivity engines".[2]

At the same time, organizational and economic associations of enterprises operating in a certain field in order to create a high added value chain are called clusters. M. Porter defines clusters as "geographically close groups of businesses and their supporting infrastructure." Through this, the influence of enterprises on each other is more clearly manifested. "The main aspect of the cluster structure is expressed in the ability to attract specialized labor force, wide distribution of skills, knowledge, experiences and enter into special economic relations".[2]

S. A. Mokhnachev and E. S. Mokhnacheva believes: "Cluster structure is a grid-like form based on mutual integration of various enterprises and industries." The authors do not focus on geographic location when defining cluster structures. Cluster structures are seen as a network of enterprises and organizations related to the production of final products".[4]

American economist P. According to Krugman: "clusters form a structural element of the market for specialized workers, the effect of which is manifested in the employment of workers, and in the ability of employers to acquire a workforce with the necessary potential and skills." "A cluster is a geographically concentrated group of connected companies in related industries, specialized suppliers, service providers, firms in related fields, as well as competing, but interoperable, organizations related to their activities in certain fields." [5]

P. A. According to Larionova: "from the point of view of a systemic approach, a cluster is a set of economic subjects of various fields, connected by mutual relations and whose results are interdependent, united in a single organizational structure working together for a specific goal". [6]

World experience shows that the cluster as an organizational-economic form of interaction between related and supporting industries helps to expand the type of products produced and develop new markets.

Building materials industry cluster is an improved organizational form based on deepened division of labor of existing construction, mining, processing industry, production infrastructure enterprises in the region. Through regional economic integration within the cluster, the quality of construction services will improve, become cheaper, and on this basis, it will be possible to reduce the investment costs of industrial enterprises. Introduction of modern technologies, management methods, exchange of information between suppliers and buyers will be facilitated in the economy of the region. Relying on these, it will be possible for the enterprises that are part of the regional cluster to have high economic indicators.

Regional clusters can be formed both in the construction sector and at the intersection of construction and other related industries. However, it should be noted that inter-industry clusters are currently the most common. They were formed as a result of close relations of the construction industry with other industries in the region. "Buyers and manufacturers of building products are coming together across the value chain, and deepening collaboration represents an opportunity to create synergistic effects. The close connection between them creates conditions for the formation of cluster structures at the intersection of industrial sectors. The cross-sectoral approach to the clustering of the construction complex is the most common in the definition and analysis of cluster structures in the regional economy. [7]

X. M. According to Saydahmedov's information, Namangan region has an index close to the average level of the republic (together with Surkhondarya and Fergana regions) according to the index of provision of mineral resources per capita. At the moment, Bukhara, Kashkadarya, Tashkent and Navoi regions have high indicators in this regard, which is determined by the fact that the availability of fuel and energy resource reserves has been fully studied. [8]

The mentioned general principles are related to the essence of the theory of management and represent general requirements for economic systems, special principles and principles of activity of subjects reflect the requirements for the structural structure of cluster management and decision-making in it.

About 50 percent of the capacity of construction material mines is being used in the republic. Half of the available reserves in the Fergana region have been exploited. The use of construction material deposits in Namangan region is at the same level. Currently, the use of raw materials for the production of mineral fiber is not established. The level of use of decorative stone, brick raw material mines is 32 percent. This shows that in the future there are necessary opportunities to develop the construction industry of the region and to increase the economic potential of the region on this basis.

Research methodology. The article makes extensive use of the methods of scientific study, comparative comparison, statistical data study and economic comparison and analysis, logical thinking, scientific abstraction, analysis and synthesis, induction and deduction of building cluster formation in the development of the building materials industry.

Analysis and results. Modern economic science considers the formation of clusters as one of the important factors in the innovative development of the country. Based on the mechanisms of organization and management of regional construction clusters, cluster initiatives lie. At the moment, systems that require such science and are aimed at ensuring the rapid development of high-tech complexes have not yet been thoroughly researched in our country. Based on this, it is very important to revise the methodological foundations of the creation of regional construction clusters and determine the most important principles for choosing certain enterprises in the field according to its composition, as well as clarify the rules of interaction between them and determine the socio-economic parameters for assessing the effectiveness of cluster participants. At the same time, the formation and development of cluster structures is relevant, taking into account the study of the interests of unifying economic entities such as owners of enterprises, investors, consulting companies and managers of educational institutions, as well as state authorities.

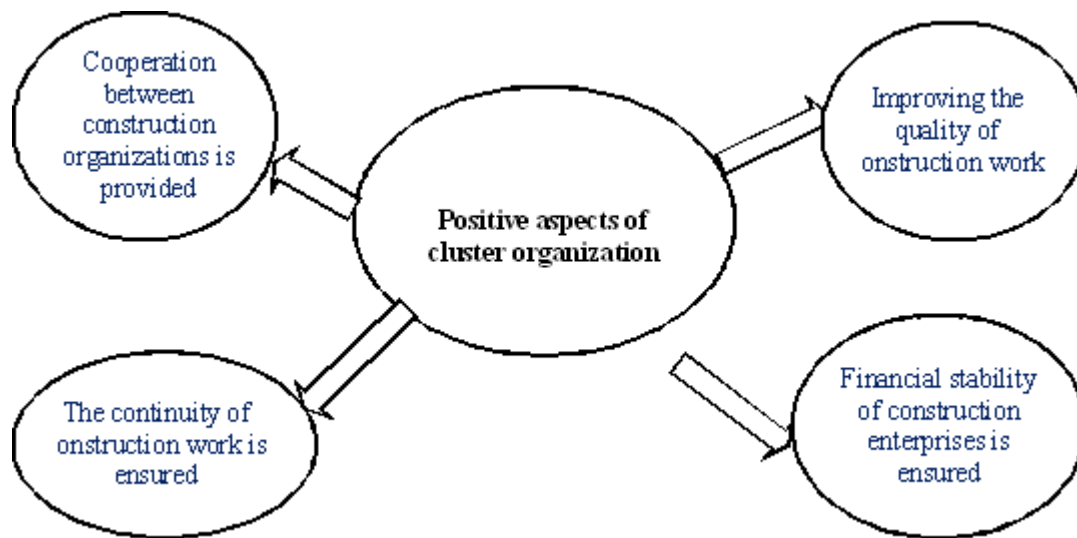


Figure 1. Positive aspects of cluster organization

As recognized in the image above, the following positive results are achieved by organizing clusters in the construction network:

- continuous and timely delivery of building materials between enterprises is ensured in the construction network;
- the quality of construction installation work carried out by construction organizations increases;
- at enterprises in the construction Network, cases of idle stay of workers during their working hours are eliminated;
- ultimately, the financial stability of enterprises in the grillage network is ensured.

Summary. In our opinion, the investment-construction cluster as a complex system is characterized by the following: it has a complex system and includes a number of sub-systems; on the one hand, works separately from the external environment, and on the other hand, interacts with the external environment; is a partially managed system, in which the elements of centralization are preserved, and business entities conduct independent activities. Self-organization and regulation are typical for these subjects; located in a limited territorial space and its development is closely connected with the development of this space.

The implementation of construction cluster activities in the development of the construction materials industry is characterized by the following features from the point of view of content and consequences:

A) on the composition of elements and their movement: the cooperative movement of participants in the cluster provides the possibility of new results that cannot be achieved without such cooperation (emergency - the emergence of a new feature in the combination of elements that does not exist from individual elements); hierarchy (ensuring the stability of the system against external influence by

subordination of elements to each other); subordination (the division of the system into small systems and the maintenance of connections between them); unity (the interdependence of individual elements, without which the individual element loses its meaning); probability (impossibility of predetermining and complete determination of connections in the system); multi-criteria (multiplicity of goals from system activity).

B) according to specific characteristics for movement: integration (combination of elements, working together, development of connections between them); adaptability (the ability of the system and its individual elements to adapt to changes in the external environment); balance (for the system, the existence of a balance between its individual elements); dynamism (the ability of the system to develop, constantly changing); feedback (availability of information about the system's response to control effects); management (influencing the system to get the desired result).

Regulation of regional investment construction cluster activities is based on a number of principles. They determine the requirements for the structural structure and management system of the cluster, regulate the activities of the entities in the cluster. We believe that these principles can be stated as follows.

1. General principles: scientific approach - regulation of cluster activity should be based on systematic analysis, collective approach and other scientific methods; it is necessary to harmonize the interests of the sector with the interests of the region - it is necessary to observe the interests of the investment-construction activity subjects and to meet the needs of the social development of the region; systematization and complexity - comprehensive coverage of organizing and regulating sub-systems based on the rules of systems regulation theory; it is necessary to take into account the historical, geographical, economic, socio-cultural and other dimensions of the development of the region; effective combination of positive synergism in the activities of the entities within the cluster and maintaining a competitive environment between them, ensuring a healthy, positive spirit of competition in the cluster.
2. Special principles: wide introduction of investments in the production process; free flow of information and information exchange within the cluster; all participants can use the tangible and intangible resources within the cluster, the results of the cluster's activities (equal rights), including state guarantees; maximum use of local resources for cluster needs; development of various forms of integration within the cluster; development of intersectoral, regional and international relations; development of small business and private entrepreneurship.
3. The principle of regulation of the activities of the entities included in the cluster: economic, social, environmental efficiency of the activities of the entities; achieving high profits in cooperation with other participants (synergy); achieving high product quality (competitiveness); cost reductions and savings (including transaction cost savings); maximum satisfaction of the demand for ability to pay; work on the basis of a flexible strategy within the cluster.

References

1. Goryachev R. A., Romashova I. B. Cluster approach and innovative political economic subjects as the need for time // Economic science. Vestnik Nizhegorodskogo universiteta im. N. I. Lobachevsky. – Nizhny Novgorod, 2013. – No. 3 (3). - p. 52–59.
2. Porter M. International competition. - M.: International relations, 1993. - p. 65.
3. Mokhnachev S. A., Mokhnacheva E. S. The trend of clustering in the regional economic system // Regional economy: theory and practice. - M., 2009. - No. 8 (101). - p. 49–52.
4. Savelyev I. A. Cluster form of spatial organization of economic interactions // Bulletin of the Kostroma State University. - Kostroma, 2012. - No. 4. - P. 214.
5. Larionova N. A. Cluster approach in managing the competitiveness of the region // Economic Bulletin of the Rostov Economic University. - Rostov-on-Don, 2007. - No. 1. - S. 182.

6. Dzhumaev B. M., Mehrobi I. Kh. Prerequisites for the creation of regional industrial clusters in the regions of republican subordination of Tajikistan // Bulletin of the Tajik National University. Series of socio-economic sciences. - Dushanbe, 2016. - No. 2/4 (204). – S. 54.
7. Kashchuk I. V. Formation of a regional innovation and production cluster in the production of building ceramics // Bulletin of the Tomsk State University. - Tomsk, 2010. - No. 4 (12). - S. 135.
8. Saydakhmedov Kh. M. Assessment of the mineral resource potential of the regions and the priorities of its use. - Macroeconomic and regional aspects of modeling sustainable economic growth. Part I. - Tashkent, 2011. - S. 210-211.
9. Saidov Mashal Samadovich, Vafoeva Zarnigor (2023) Features of Strategic Alliances in the Global Economy. AMERICAN JOURNAL OF ECONOMICS AND BUSINESS MANAGEMENT ISSN: 2576-5973 Vol. 6, No.1,2023.
<https://globalresearchnetwork.us/index.php/ajebm/article/view/1896/1725>
10. Saidov Mashal Samadovich. Muidinov Dilmurod Murodzhonovic. (2023) The Development Strategy of International Companies in Modern Conditions. AMERICAN JOURNAL OF ECONOMICS AND BUSINESS MANAGEMENT ISSN: 2576-5973 Vol. 6, No.1,2023.
<https://globalresearchnetwork.us/index.php/ajebm/article/view/1897/1726>
11. Saidov Mashal Samadovich, Shodmonov Beknur Olimjonovic (2023) Organization of Control and Evaluation of Effectiveness in International Companies. AMERICAN JOURNAL OF ECONOMICS AND BUSINESS MANAGEMENT ISSN: 2576-5973 Vol. 6, No.1,2023.
<https://globalresearchnetwork.us/index.php/ajebm/article/view/1898/1727>
12. Saidov Mashal Samadovich, Mirzakarimov Jasurbek Kochqorboy ugli (2023) Improvement of the Export Strategy in Light Industry Enterprises. AMERICAN JOURNAL OF ECONOMICS AND BUSINESS MANAGEMENT ISSN: 2576-5973 Vol. 6, No.1,2023.
<https://globalresearchnetwork.us/index.php/ajebm/article/view/1899/1728>
13. Saidov Mashal Samadovich, Bobamuradov Behruz (2023) Improving Government Regulation of Corporate Governance. AMERICAN JOURNAL OF ECONOMICS AND BUSINESS MANAGEMENT ISSN: 2576-5973 Vol. 6, No.1,2023.
<https://globalresearchnetwork.us/index.php/ajebm/article/view/1900/1729>
14. Yaxyaeva Inobat Karimovna (2020). Role of Implementaton of “Lean Production” in Light Industr. nternational Journal of Research in Management & Business Studies (IJRMBS 2020).
<file:///C:/Users/Acer/Downloads/yaxyaeva.pdf>
15. Yaxyaeva Inobat Karimovna (2021). O’ZBEKISTON RESPUBLIKASI TO’QIMACHILIK SANOATIDA “TEJAMKOR ISHLAB CHIQRISH” KONTSEPTSIYASINI TATBIQ ETISH MASALALARI. Логистика ва иқтисодиёт журнали 2021 й. 4-сон.
<https://journal.tsue.uz/index.php/archive/article/view/3105/810>
16. Yaxyaeva Inobat Karimovna (2021). Theoretical Fundamentals of Introduction of Economic Production in Industrial Enterprises: Principles and Functions. Asian Journal of Technology & Management Research (AJTMR) ISSN: 2249 –0892 Vol 11 Issue–01, Jun -2021
<https://journal.tsue.uz/index.php/archive/article/view/124/205>
17. Inobat Yaxyaeva (2020). FOREIGN EXPERIENCE OF IMPLEMENTATION OF “LEAN PRODUCTION”. International Journal of Scientific & Engineering Research Volume 11, Issue 12, December-2020. ISSN 2229-5518. <https://www.ijser.org/researchpaper/FOREIGN-EXPERIENCE-OF-IMPLEMENTATION-OF-LEAN-PRODUCTION.pdf>
18. Yakhyaeva Inobat Karimovna (2020). DEVELOPMENT OF A LEAN MANUFACTURING SYSTEM AS A FACTOR IN INCREASING THE COMPETITIVENESS OF INDUSTRIAL

ENTERPRISES. ISCIENCE.IN.UA «Актуальные научные исследования в современном мире» Выпуск 9(65) ч. 3 ISSN 2524-0986.

<https://journal.tsue.uz/index.php/archive/article/view/47/52>