

ORGANIZATION OF EDUCATIONAL SYSTEM ACTIVITIES BASED ON INNOVATIVE TECHNOLOGIES: CLUSTER APPROACH AND ITS SIGNIFICANCE

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Kushieva Nodira Khabibjonovna

UzSWLU

Dsc doctorate



ELSEVIER



Abstract: The article talks about the importance of activities based on cluster approaches in the economic development of the production process, and the application of these approaches to the educational process. At the end of the last century, the effective influence of clusters in the system of specialist personnel training began to be known. Accordingly, interests in the use of technologies based on cluster approaches in organizing the educational process in relation to production has increased. This situation caused a sharp increase in attention to higher education institutions that train human capital. In this case, the methods of cluster approach to the systematic and appropriate organization of linking higher education activities with production began to be used.

Keywords: Educational system, innovation technologies, cluster approach, higher education, personnel training..

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A portfolio of investment projects was formed by the higher education institutions on the basis of the practical problems of the partner enterprises on the organization of the higher education system on the basis of innovative technologies. This led to the formation of innovative corporate partnerships of higher education with science and production, and a cluster system began to emerge in connection with the coordination of scientific and research activities, the implementation of innovative technologies in the organization of corporate partnerships between science and production¹³⁷.

In today's period of rapid development of our country, special attention is paid to the clustering of the continuous education system based on the integration of science and production.

In the decree of the President of the Republic "On improving and encouraging the activities of academicians of the Academy of Sciences of the Republic of Uzbekistan", special attention was paid to the study of foreign languages and cultures in connection with the development of the continuous education system and its internationalization. Special attention was paid to the development of

¹³⁷ Kadyrov A.A. National innovative systems and ix regional aspects. - T.: "New century generation", 2011. - 192 p.

measures related to further strengthening the position of education and science, increasing the quality of specialist personnel training¹³⁸.

Special attention is paid to the implementation of the system based on cluster approaches in the system of integration of science, education and production. Accordingly, in connection with the increase of indicators of scientific potential, appropriate measures were developed to direct funds to orders of economic sectors and to the most important priority research aimed at solving specific problems. The application and application of the technology of cluster approaches to the study of foreign languages with special attention to the internationalization of the system is being taken into account.

It is noted that special attention is paid to the establishment of international cooperation in order to organize the continuing education system based on cluster approaches and to develop it based on world experience. Special attention is paid to learning foreign languages on the basis of cluster approaches and learning the experience of developed countries¹³⁹.

At the stage of transition of social development to informational economy, not goods (their quality is often the same), but enterprises compete, as a result, the main competitive advantage is determined not by the nature of the goods, but by the company's ability to sell its manufactured goods, reduce its costs, and its powers. Formation of cluster structures for the development of the region - creation of additional jobs, increase of local budget revenues, distribution of powers, interaction with business structures, acceleration of information exchange and promotion of news, increase of innovative activity of small business and private business entities, acceleration of innovative attractiveness of the region and regional provides new opportunities for economic diversification¹⁴⁰.

Clusters for business structures are an opportunity to participate in large investment projects, earn additional income, enter new markets, reduce costs for introducing innovations, provide infrastructure for innovative activities, improve staff skills, attract small businesses to innovative activities, and ultimately increase competitiveness. In this case, each cluster participant - enterprise, aiming at its own goal, not only increases the efficiency and competitiveness of its economic activity, but also serves to increase the efficiency and competitiveness of various other

¹³⁸ Decree of the President of the Republic of Uzbekistan dated September 21, 2018 No. PF-5544 on approval of the innovative development strategy of the Republic of Uzbekistan for 2019-2021

¹³⁹ Trushnikov D.Yu., Trushnikova V.I. Vospitanie v usloviyakh universitetskogo clustera i cennostnye orientiry sovremennogo studenchestva: statya [Elektronnyy resurs]. – URL: [http:// conference.tsogu.ru/static/articles/2009/01/__.doc](http://conference.tsogu.ru/static/articles/2009/01/__.doc)

¹⁴⁰ Goretov I.N. Role specialization and regional cluster development // Actual problems of humanitarian and aesthetic science. - 2009. - No. 5. - S.105-108 Mikhailova, M. V. Salaeva, A. L. Cluster approach to education and cultural management: positive experience of Russian regions // Cluster approach to management cultural and educational space in the garden. Materialy nauchnoprakticheskoy conference on December 19, 2014. - Cheboksary. - S. 74-80

enterprises operating in the region by helping to form the business infrastructure¹⁴¹.

Participation in the regional cluster can also be attractive for science and educational institutions, because it increases the volume and quality of funding of scientific research and development, increases the level of technical support of scientific research, implements investment projects and participates in external projects, improves the qualification of scientific and pedagogical personnel is one of the new possibilities¹⁴².

According to the analysis of the foreign experience of the formation of regional clusters, there are two main models, within which "liberal" and "dirigist" cluster policies are implemented. The main principle of "liberal" politics is that market relations will have the dominant force, and the role of the state will be only to remove obstacles to natural development¹⁴³.

The study of regional clusters has become a popular topic in modern economic literature. Scientists continue to analyze them in various aspects of development. Today, there are more studies devoted to the formation of competitive advantages of the region, the implementation of the regional development strategy, the facilitation of the interaction of small business and private entrepreneurship and the corporate sector, the improvement of the quality of education and innovative activity in the regional education system¹⁴⁴.

Currently, it is becoming urgent to research the distribution of the labor force on all structural links of industrial clusters, to study the role and importance of inter-firm high-tech clusters in regional networks, to conduct research on the formation of the infrastructural supply system of regional clusters. It is appropriate to apply the management cluster approach only when there are a number of infrastructural and non-infrastructural conditions. These are: 1. Infrastructure conditions: - officialization of the state policy aimed at supporting and developing clusters, taking into account the potential of the cluster participants and the characteristics of the development of the entrepreneurial system, the uniqueness of the region. Determining the priorities and tasks of cluster development (inclusion of cluster development programs in the socio-economic development strategy of the region, allocation of budgetary and non-budgetary funds);

- scientific-educational basis, qualified labor force, the availability of business structures from the state ITTKI (Scientific-Technical Development and Construction

¹⁴¹ Kudryavtseva O.V. *Dominirovanie clusterov v ekonomie // Aktualnye problemy humanitarnykh i estestvennykh nauk.* - 2009. - No. 11. - P.149-150..

¹⁴² Smirnov, A. V. *Obrazovatelnye klasteri i innovatsionnoe obuchenie v vuze: monograph / A. V. Smirnov.* - Kazan: Shkola, 2010. - 102 p.

¹⁴³ Mikhailova, M. V. Salaeva, A. L. *Cluster approach to education and cultural management: positive experience of Russian regions // Cluster approach to management cultural and educational space in the garden. Materialy nauchnoprakticheskoy konferentsii na December 19, 2014.* - Cheboksary. -

¹⁴⁴ .Khomenko E.B. *"Upravlenie razvitiem infrastruktury predprinimatelstva v usloviyakh perekhoda k informatsionnoy ekonomie"*. St. Petersburg. – 2014. -78 p.

Works), interest of business from large organizations (corporations) in the educational sector;

- development of communication between cluster participants as a basis for formal and informal exchange of information, knowledge and professional experience. The principles of shared cluster governance require trust and transparency from stakeholders to move collaboratively. Using a cluster approach involves long-term planning and strategic forecasting of business activities;

- support of public orders and public-private cooperation as a means of development of cluster structures;

- the participation of social associations in the formation of regional clusters that allow business entities to share experience and protect their interests.

2. Non-infrastructure conditions:

- the presence of horizontally and vertically integrated business structures in the regions that use regional competitive advantages in the dynamically developing segments of the national and world markets;

- an increase in the number of small businesses and private enterprises that use modern technologies, produce competitive products, and specialize in the production of one or more types of products;

- awareness of the need for representatives of business structures to participate in the cluster¹⁴⁵.

According to the identified and conducted researches, the following stages and institutions of entrepreneurship support infrastructure are operating in the process of development of innovation-oriented cluster in the world:

Stage 1. Identification of permanent participants of the cluster and development of territorial strategies of economic clustering - cluster development centers.

Stage 2. Development and implementation of projects on priority areas of cluster development - business incubators, guarantee funds, collective use centers, technology transfer centers.

Stage 3. Development and implementation of strategic projects of cluster development - technoparks and/or technopolises.

Step 4. Independently regulated development of clusters - separate economic regions¹⁴⁶.

In the formation and development of clusters focused on innovative activity, activation of cooperation between business structures, scientific and educational institutions will be of primary importance, which at the first stage requires improvement of the management system of organizations - permanent participants

¹⁴⁵ Bobrova, S.Ya., Zhukova, N.V., Yarovova, V.V. Aktualnye voprosy formation of clusters, kak instrumenta povysheniya konkurentosposobnosti regiona // Fundamentalnye issledovaniya. – 2007. – No. 12 – S. 508-510

¹⁴⁶ Polat E.S. New pedagogic and information technology and educational system: Ucheb. posobie dlya stud. ped. vuzov i system povysh. qualified ped. personnel. - M.: "Academy". 2002. -272 p.

of clusters. Therefore, there is a need for consulting infrastructural services specializing in strategic and innovative management, identifying best practice examples of new management methods and mechanisms in cluster enterprises and carrying out regular work on helping to promote them effectively. In this case, as an independent direction, it is appropriate to develop collective marketing projects that allow assessing the potential of economic clustering in the region and possible directions.

According to the results of the conducted research, it is necessary to activate the system of creating the following institutions of the market infrastructure in the structure of the vertically integrated cluster in the region, depending on the stage of its development:

Stage 1. Identification of permanent participants of the cluster and development of regional strategies of economic clustering - chamber of commerce and industry.

Stage 2. Development and implementation of pilot projects on the priority areas of cluster development - automation systems of state procurement.

Stage 3. Development and implementation of strategic projects of cluster development - logistics centers, online areas.

Step 4. Self-regulated development of clusters - information-marketing centers.

In the medium-term perspective, it is desirable to coordinate the target direction of the development of vertically integrated clusters and to reorganize the mechanism of interaction of business structures in the process of reproduction on the principles of competition. This is supported by a cluster policy aimed at implementing a "bottom-up" cluster initiative. At the initial stage, clusters and their participants need each other in formulating their own development strategy. The Chamber of Commerce is an institution providing assistance in this direction. In order for a vertically integrated cluster to move from a potential discharge to an actual category, certain infrastructural conditions must be created in the region, including the access of cluster enterprises to relevant markets, access to raw materials, personnel, and logistical support.¹⁴⁷

When the leading enterprises of the region have priority, a conglomerate type of cluster is formed. As a basis for increasing the efficiency of the regional economy, creating institutional conditions to increase the competitiveness of cluster-forming enterprises, forming an institutional infrastructure that helps to develop the type of economic activity in this sector or region has become a priority aspect of infrastructural provision. The central subsystem of the conglomerate

¹⁴⁷ Gez, N.I. Formirovanie kommunikativnoy kompetentsii kak obekt zarubejnyx metodicheskix issledovaniy // Inostrannye yazyki shkole. – 1985. – No. 2. – S. 17-24. Goretov I.N. Role specialization and regional cluster development // Actual problems of humanitarian and aesthetic science. - 2009. - No. 5. - S.105-108

cluster infrastructure is the institutional infrastructure, in which the importance of various institutions increases at the stages of cluster development:

Stage 1. Identifying permanent participants of the cluster and developing regional strategies of economic clustering.

Stage 2. Development and implementation of pilot projects in priority areas of cluster development.

Stage 3. Development and implementation of strategic projects of cluster development.

Step 4. Organize and develop the cluster independently. Within the framework of the conglomerate cluster, the high efficiency of communication is achieved by business associations and councils, public organizations, chambers, etc. It depends on organizations that coordinate and support the interaction of business structures¹⁴⁸.

The internal dependence of the cluster participants is carried out through permanent trade agreements, staff mobility, information exchange, etc. A type of interaction characteristic of a conglomerate cluster is often participation in a joint project implemented on the basis of public-private partnership.

In this way, clusters represent new types of independent organization of the economic system, and cluster policy is an important component of regional policy, the basis of its implementation is the project management approach.

As a conclusion, it should be noted that it is appropriate to teach a foreign language, including English, in accordance with each direction in the system of integration of education, science and production as factors for the development of clusters in the regions. As mentioned above, production, organizational management, financial, political and economic factors are considered as a cluster approach. Looking at these factors in harmony, analyzing them in relation to each other, ensures the effective implementation of the clustering system in the regions. When interpreted from a methodological point of view, based on the socio-economic situation in the regions and their potential, the correct and effective implementation of clustering will ensure the economic development of enterprises and organizations and the high-quality production of goods and services, and ultimately serve to increase their competitiveness.

¹⁴⁸ Goretov I.N. Role specialization and regional cluster development // Actual problems of humanitarian and aesthetic science. - 2009. - No. 5. - S.105-108

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