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BIDELMANOVA M.<sup>1</sup>

## THE ROLE OF MANAGEMENT CLUSTER IN THE DEVELOPMENT OF THE KAZAKHSTAN ECONOMY

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*Formulation of the problem.* The priority task is to ensure a sustainable competitive national economy based on the introduction of advanced technologies, ecologically clean, safe production, product quality management systems, and resource conservation systems. *The purpose of the article* is to reveal the approach to the formation of regional industrial policy based on the creation of cluster schemes on the example of automobile manufacturing in the East Kazakhstan region. *The methodological basis of the research* was logical methods of information processing, methods of system analysis, abstract-logical method for formulating conclusions. *The main research hypothesis* is that clusters should unite geographically close groups of interdependent companies. The co-location of firms contributes to the formation and enhancement of value-creating advantages resulting from a network of interactions between firms. *Presenting main material.* The article reveals the prospects of the cluster organization of the national economy of Kazakhstan, the essence and structure of the cluster. Based on the results of the analysis of indicators of socio-economic development of the East Kazakhstan region, the prerequisites for the creation of an automotive cluster have been determined. *Originality and practical significance of the research.* Indicators of socio-economic development of the East Kazakhstan region allowed it to be used as a platform for the development of an automotive cluster. The supply of Kazakh cars to the countries of Central Asia and Transcaucasia can bring the country more than \$1 billion in additional export revenue per year. *Conclusions and prospects for further research.* At this stage, the problem of ensuring sustainable growth of the economy of the Republic of Kazakhstan by increasing the competitiveness of its industrial products at the world, national and regional levels becomes paramount. Economic science faces the task of developing an industrial policy mechanism, the main goals of which are to ensure sustainable growth rates and increase competitiveness.

### Key words:

cluster, competitiveness, production cooperation, region, project, program.

## РОЛЬ УПРАВЛІННЯ КЛАСТЕРАМИ У РОЗВИТКУ ЕКОНОМІКИ КАЗАХСТАНУ

*Постановка проблеми.* Пріоритетним завданням стає забезпечення стійкої конкурентоспроможної національної економіки на основі впровадження передових технологій, екологічно чистих, безпечних виробництв, систем управління якістю продукції, систем ресурсозбереження. *Метою статті* є розкриття підходу до формування регіональної промислової політики на основі створення кластерних схем на прикладі автомобілебудування у Східно-Казахстанській області. *Методологічною основою дослідження* стали логічні методи обробки інформації, методи системного аналізу, абстрактно-логічний метод для формулювання висновків. *Основна гіпотеза дослідження* полягає в тому, що кластери повинні об'єднувати географічно близькі групи взаємозалежних компаній. Спільне місце розташування компаній сприяє формуванню та збільшенню переваг, що створюють вартість, є результатом мережі взаємодій між фірмами. *Виклад основного матеріалу.* У статті розкрито перспективи кластерної організації національної економіки Казахстану, сутність та структуру кластера. За підсумками аналізу показників соціально-економічного розвитку Східно-казахстанської області визначено передумови створення автопромислового кластера. *Оригінальність та практична значимість дослідження.* Показники

<sup>1</sup> Бідельманова Мадіна Майданівна, ст. викладач кафедри фінансів, обліку та оподаткування, Східно-Казахстанський державний технічний університет ім. Д. Серікбаєва, м. Усть-Каменогорськ, Казахстан.

**Bidelmanova Madina**, senior lecturer of the Finance, Accounting and Taxation Department, D. Serikbayev East Kazakhstan technical university, Ust-Kamenogorsk, Kazakhstan.

**ORCID ID:** <https://orcid.org/0000-0002-5332-1655>

**e-mail:** [bidelmanova@mail.ru](mailto:bidelmanova@mail.ru)





соціально-економічного розвитку Східно-Казахстанської області дозволили використовувати її як майданчик для розвитку автопромислового кластера. Постачання казахстанських автомобілів до країн Середньої Азії та Закавказзя можуть дати країні понад \$1 млрд. додаткової експортної виручки на рік. *Висновки та перспективи подальших досліджень.* На етапі першорядною стає проблема забезпечення сталого зростання економіки республіки Казахстан шляхом підвищення конкурентоспроможності своєї промислової продукції на світовому, національному і регіональному рівнях. Перед економічною наукою постає завдання розробки механізму промислової політики, основними цілями якого є забезпечення темпів сталого зростання та підвищення конкурентоспроможності.

**Ключові слова:**

кластер, конкурентоспроможність, виробнича кооперація, регіон, проект, програма.

**Formulation of the problem.** In modern conditions of high competition in the markets of industrial goods and scientific achievements, there is a change in the directions of development of the economy and the organization of industry. The priority task is to ensure a sustainable competitive national economy based on the introduction of advanced technologies, environmentally friendly, safe production, product quality management systems, and resource saving systems.

According to the report of the World Economic Forum "The Global Competitiveness Report 2011-2012" dated September 7, 2011, Kazakhstan retains 72nd place in the world competitiveness ranking of economies for the second year [8]. However, this is five positions lower than in 2009 (rank 67) and 11 spots lower than in 2007 (rank 61). The factors hindering the economic development of Kazakhstan at the present stage are: a low degree of diversification, underdeveloped small and medium-sized businesses, the preservation of a raw orientation, which causes dependence on world prices for energy and other commodities.

An analysis of world economic practice shows that the most cost-effective, competitive and promising direction for business development is industrial cooperation, which involves small, medium and large enterprises. This is due to the fact that in the context of reforming local self-government, the interaction of the state, business and various institutional structures as the three most important subjects of economic policy, as well as the network interaction of various companies with each other, is of fundamental importance. Such effective cooperation is achieved within the framework of industrial clusters, which are a territorial concentration of a set of interconnected companies, as well as state and public institutions necessary for the development of the cluster's competitive advantages.

**Analysis of the rest of the research and publications.** Many foreign scientists deal with competitiveness management issues, including M. Porter, M. Mescon, P. Drucker, A. Thompson, F. Hedouri, and F. Brian T. The idea to use the cluster approach for competitiveness management belongs to Michael Porter. Further, it was developed in the works of many authors, such as Reine F., Feather E., Sweeney S., Martin R., Sanli P, Brenner T. Among Russian scientists, this direction is being developed by Belousov D., Salnikov D., Sivakov D., Gurova T., Voronov A., Buryak A. At present, due to the complexity of the object of study, a holistic methodology on this problem has not yet been developed in the domestic literature. Few Russian researchers consider the very process of cluster formation. In most works, already established intersectoral complexes are analyzed. When creating an industrial policy mechanism that implements the idea of clusters, one has to overcome a number of significant difficulties due to the specifics of the domestic economy and the multidimensionality and subjectivity of the nature of assessments of cluster schemes. Thus, the task of adapting and substantially supplementing the existing approaches and methods for identifying and evaluating clusters arises. Moreover, the main task is not the process of defining clusters, but the possibility of developing an industrial policy of sustainable growth on their basis and ensuring the competitiveness of the economy of the Republic of Kazakhstan.

**The purpose of the article** is to reveal an approach to the formation of a regional industrial policy based on the creation of cluster schemes on the example of the automotive industry in the East Kazakhstan region.

**Presentation of the main research material.** The term "cluster" comes from the English. cluster (swarm, bunch, pile, accumulation, group). According to the theory of Michael Porter, "a cluster is a group of geographically adja-

cent interconnected companies (suppliers, manufacturers, etc.) and organizations related to them (educational institutions, government bodies, infrastructure companies) operating in a certain area and complementing each other" [1]. As can be seen from the figure, the cluster consists of an industrial and production core and an infrastructure segment that ensures its full-scale operation. The infrastructure segment is a network of diversified institutions providing training of professional personnel, development of innovations, providing financial, information and other services.

In the infrastructure segment, the state plays an important role. The main task of state bodies in the field of cluster policy is to stimulate and support the creation and implementation of cluster initiatives.

There are various types of clusters that differ in scale and focus, but in general, there are two main requirements for their creation.

First, the enterprises that are part of the cluster must be interconnected. A distinction is made between vertical links (chains of purchases and sales) and horizontal links (additional products and services, use of similar specialized inputs, technologies or institutions, and other links).

Secondly, clusters should unite geographically close groups of interconnected companies. The joint location of companies contributes to the formation and increase of the value-creating advantages resulting from the network of interactions between firms.

In Kazakhstan, to ensure sustainable and balanced economic growth through diversification and increasing its competitiveness, a state program was developed for the accelerated industrial and innovative development of the Republic of Kazakhstan for 2010-2014 [2]. It is based on the principles of focusing on business initiatives, supporting "breakthrough" projects and cluster initiatives in the non-commodity sector.

The cluster organization of the national economy provides for the following possible option for the development of clusters in the regions of Kazakhstan:

- West Kazakhstan region - clusters associated with deep processing of oil and gas;
- Southern region - cotton, rice, fruits and vegetables processing, wine-making;
- East region - interstate cluster of efficient use of coal and clusters for advanced processing

of bauxite ore and other types of mineral raw materials;

- Central Kazakhstan – metallurgical cluster;
- Almaty - educational, entertaining, financial;
- Astana - clusters of situational and analytical work.

In the village of Alatau (Almaty region), an information technology cluster is already being created - a technopark. There are projects in the republic for the formation of technoparks in the cities of Stepnogorsk, Priozersk, an agro-industrial park in the village of Shortandy. The possibility of creating a silicon cluster and a cluster for the production of catalysts in Almaty is being explored.

In the Republic of Kazakhstan, one of the most attractive regions in terms of the formation and development of cluster structures is the East Kazakhstan region (EKR). The territory of the region, stretching for 283.3 thousand square meters. km, borders on two regions of the Russian Federation, one region of China and three regions of Kazakhstan.

The region is rich in natural resources. In terms of the richness of the subsoil, it is on a par with the Urals. The main wealth is multicomponent polymetallic ores. The main metals are lead, zinc and copper, by-products are gold, silver, antimony, mercury, cadmium, tungsten, molybdenum, bismuth, thallium, indium, tellurium, niobium and other rare metals. In addition to polymetallic ores, there are deposits of tin, tantalum, titanium, magnesium, nickel and cobalt in the Altai Mountains. Among the manufacturing industry are the largest joint-stock companies: Kazzinc, Ust-Kamenogorsk Titanium and Magnesium Plant, Ulba Metallurgical Plant; association "Vostokkazmed" - a branch of the corporation "Kazakhmys".

Eastern Kazakhstan is an industrialized region with a high level of industrial development. The bulk of gross value added is produced in industry. The basic branch of the economy is non-ferrous metallurgy, mechanical engineering and metalworking, energy, forestry and woodworking, light and food industries are also developed.

The results of assessing the level of economic development of the East Kazakhstan region and the performance of all economic entities of the region based on the gross regional product (Table 2) show that the contribution of this region to the country's economy is 5.9% in





2010. In terms of GRP in 2010, the Eastern The Kazakhstan region took the 6th position on the decreasing scale in the republican volume.

The financial result of large and medium-sized enterprises and organizations of East Kazakhstan region for August 2011 (rate: 1 US dollar - 146.14 tenge in 2011; 1 US dollar - 147.58 tenge in 2010) amounted to 10794.6 million tenge, in In the same period of 2010, a profit was made in the amount of 7199.7 million tenge [6].

The machine-building complex of the region is represented by large enterprises, such as: Asia-Avto CJSC, Vostokmashzavod JSC, Ust-Kamenogorsk Valve Plant JSC, Ust-Kamenogorsk Capacitor Plant JSC, Semipalatsk Machine Plant JSC, Irtyshsvetmetremont JSC, Mashzavod LLP, Kazelectromash LLP, Georgievsky Pumping Equipment Plant LLP. They produce cars "Niva", "Skoda", mining and processing equipment, oil and gas fittings, household electric motors and pumps of various modifications, capacitors and other electrical and cable products.

Indicators of socio-economic development of the East Kazakhstan region made it possible to use it as a platform for the development of the automotive industry cluster. Deliveries of Kazakh cars to the countries of Central Asia and the Caucasus can give the country more than \$1 billion in additional export earnings per year. Along with loading the capacities of JSC "Asia Auto", which is the only car assembly plant in the Republic, the "Map of industrialization of Kazakhstan for 2010 - 2014" [3] plans to build a full cycle car plant and a technology park for the production of automotive components (components in demand in the secondary market: seats, bumpers, fuel tanks, exhaust systems, lighting, automotive harnesses, glass, tires, batteries, filters).

Over the years of existence of Asia Auto JSC, there has been a steady increase in production and financial indicators. Sales volume as of July 1, 2011 amounted to 7,763,095 thousand tenge, net profit – 697,677 thousand tenge [4]. The high competitiveness of the vehicles produced by the plant compared to foreign-made vehicles is confirmed by the results of sales. According to the results of the first half of the year, 3012 passenger cars were produced in the republic, AZIA AVTO JSC accounted for 2069 cars of KIA, Chevrolet, Lada, Skoda brands. Realization of cars in the territory of the Republic of Kazakhstan is carried out through its own branch network. At present, representative offices of

AZIA AVTO JSC are open in all regional centers of the Republic of Kazakhstan.

In June 2010, an agreement was signed between the Government of the Republic of Kazakhstan and Asia-Avto JSC, according to which the company began to create a full cycle car plant. Engineering infrastructure is currently being designed for stamping, welding, painting shops and a technology park for the production of automotive components. The akimat allocated a plot of 95.5 hectares on the left bank of the Irtysh for the construction of a new production facility. This part of Ust-Kamenogorsk today is experiencing a shortage of engineering communications - electricity and water supply, gasification and other networks. By providing the infrastructure for the new auto production, the communal issues of thousands of residents of the surrounding areas will be resolved. In addition, the new automotive industry center will give impetus to housing construction and the socio-economic development of the city - it is planned to build thousands of new apartments for employees of the plant, kindergarten and school.

The project, implemented by JSC "Asia Auto" with the support of the Government of the Republic of Kazakhstan and the Akimat of the East Kazakhstan region, meets the objectives of developing high-tech production with a multiplier effect of one to ten, a high proportion of local content and at the same time stimulates social development and modernization of non-primary industries. The total investment in the project is estimated at \$514 million. Reaching the design capacity will require the creation of 12,000 new jobs. The project will provide \$68.6 million in annual budget contributions and export earnings of \$1.04 billion. The total GDP growth due to the project implementation will be \$1.8 billion annually.

The State Program for 2010-2014 raised the issues of providing qualified human resources for the entire machine-building industry:

1) covering the need for personnel in 16 specialties through training in universities and 19 educational institutions of TVET in Aktobe, Atyrau, East Kazakhstan, Karaganda, Kostanay, Mangystau, Pavlodar regions;

2) construction in 2012 of the Interregional center for training and retraining of personnel for the machine-building industry for 700 student places in Ust-Kamenogorsk [2];

3) introduction of a system of internships at manufacturing enterprises for a period of 3



months with the assignment of individual managers in the field;

4) ensuring co-financing of the program for advanced training of managerial personnel at advanced machine-building enterprises in developed countries.

**Conclusions and prospects for further research.** At the present stage, the problem of ensuring sustainable growth of the economy of the Republic of Kazakhstan by increasing the competitiveness of manufactured industrial products at the global, national and regional levels becomes paramount. Economic science is faced with the task of developing an industrial policy mechanism, the main goals of which are to ensure sustainable growth rates and increase competitiveness. These goals are met by the methodology for constructing cluster schemes, which, being intersectoral complexes, play the role of "points of growth" of the regional and national economy. Clusters make it possible to overcome structural limitations, as well as the single-industry structure of production that has developed in a number of economic entities.

Prospects for further research are to develop mechanisms to ensure domestic demand for domestic engineering products (through the reimbursement of part of the remuneration on loans, the purchase of automotive equipment for state executive bodies, their territorial bodies and subordinate institutions) and the provision of financial incentives for the promotion of Kazakhstani engineering products to the markets of Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Afghanistan.

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