

## Cluster policy in enhancing the competitiveness of container transport system of the Republic of Kazakhstan

Aliya Beisembaevna Tokatmyssova and Marat Kenjalievich Shurenov

Kazakh Academy of Transport and Communications named after M. Tynyshpayev, Shevchenko street, 97, Almaty, 050012, Kazakhstan

**Abstract.** The article examined the analysis of foreign experience definition clusters leading role in promoting regional development, increase employment, increase budget revenues and attracting investment. Businesses within the cluster have higher earnings, productivity, sales, production efficiency, the ability to reduce transaction costs, stimulate innovation. The paper container cluster is defined as cross-sectoral education, which includes all activities directly or indirectly related to the organization of container traffic and the combined single business process. Showing persistent routes of container trains on the territory of the Republic of Kazakhstan. Analyze the factors determining the efficiency of container transport system of the country as a whole and of individual subjects in the cluster.

[Tokatmyssova A.B., Shurenov M.K. **Cluster policy in enhancing the competitiveness of container transport system of the Republic of Kazakhstan.** *Life Sci J* 2014;11(12s):715-718] (ISSN:1097-8135). <http://www.lifesciencesite.com>. 154

**Keywords:** Clusters, Transport System, Container shipping

### Introduction

The dynamics of growth of containerization possible, above all, on the basis of effective cooperation among all participants of this process, by achieving synergy and multiplier effect links. Only a comprehensive solution of urgent problems will allow Kazakhstan to get a worthy competitor in the international container market and provide the stability and quality of the container traffic in the country.

Analysis of earlier performed studies have shown that, despite the development in deciding the problem of increasing the efficiency of container transport system in the market conditions of transport functioning insufficiently developed. For the best performance in the container it is necessary to define benchmarks for potential investors, who have seen in the main directions of the strategy of economic development, reflecting the long-term interests of the business, the public and the authorities allowing the complex problem-solving, also the problems of container delivery method of “door to door” and “just in time”, with the lowest cost.

Such a strategy could be cluster policy, which in the leading countries is considered as a key for competitiveness. Activities for the implementation of the cluster approach can be defined as clustering, and represents a set of organizational and economic activities carried out by state and public institutions in order to support the association of enterprises in clusters and in between informal relationships and networking.

The Founder of theory of clusters, Profess Michael Porter of Harvard University, defines cluster as a “group of geographically close located and

interacted with companies that complement each other in a particular industry”.

The term “cluster” refers to the branch and geographical concentration of enterprises that work together to produce and sell a range of related or complementary products [1].

The cluster approach applied in the study of the formation of competitiveness in a number of other theories. E. Leamer examined clusters with a high level of correlation export in the analysis of the trade at the national level. French scientists Tolenado I. and J. Soulier, used the term “dies” to describe a group of technology sectors. The formation of a die explains the dependence of one sector from another in the technological level. Thus, the die is a more narrow interpretation of the cluster, as it is based on one of the criteria of the cluster – on necessity for creating technological links between industries and economic sectors to realize their potential advantages.

In the development of Swedish theorists, cluster theory is mainly formed on the structure of the national economy, or rather, to examine the relationship of major Swedish multinational corporations. Here clusters are based on the thesis of E. Dahmen “blocks of development”. Basis for the development of competitive success by Dahmen is a link between the ability to develop a single sector and the ability to make progress – in another. Development should take place in stages, or by “vertical action” within the same industry, linked to other sectors, which will be enable gains competitive advantage.

Most modern theories of development of competitiveness based on clusters designed by W.

Feldman. The advantages of this theory are that it is based on extensive empirical studies of diversification of forms in different countries. The essence of the theory is the following. Diversification is often followed by a matrix “input-output” or contacts between branches connected on the supply and purchase. This is consistent with the mechanisms that lead to the formation of clusters.

The cluster approach can be seen as a kind of frame, connecting the process of transportation, rolling stock and infrastructure into a single container-transport system of the country.

Analysis of the main approaches to the definition of clusters shows that this concept in the scientific literature, usually displayed two points:

1) territorial localization of related companies;

2) possession of the competitive advantages that are realized in the cluster model of the territorial organization of the economy.

The concept of a regional cluster firstly introduced by M.Enrayt, who defined it as an industrial group of closely spaced companies [2].

Regional logistics cluster as a form of territorial organization of the economy plays a key role in creating a favorable business environment, promotes activity of economic entities, allowing to adapt and changing environmental conditions, as well as improve the efficiency and competitiveness of the region.

Analysis of foreign experience defines the lead role of clusters in promoting regional development, employment, revenue growth, attracting investment. Businesses within the cluster have higher profits, productivity, sales, production efficiency, the ability to reduce transaction costs, encourage innovation.

Economic of Kazakhstan has an inheritance in the form of the Soviet model of industrial organization – the territorial-production complexes. This model needs to be modified to comply with the market economy and the challenges of globalization.

Relevance of clustering is due, first, the historical system of territorial distribution of production in a planned centralized economy, and secondly, the structural changes in the economies in transition in market transformation.

Features of cluster:

- specific of spatial infrastructure of the economy;
- insufficient development subcontractions and outsourcing, especially of cluster:
- the essential role of the state;

– underdeveloped business environment for the formation of the general premises of cluster formation.

Creation of seven pilot clusters – “Metallurgy”, “Transport Logistics”, “Textiles”, “Building materials”, “Food industry”, “Tourism” and “Petroleum Engineering” – have been identified and approved by the Government of the Republic of Kazakhstan on June 25, 2005. For successful implementation of the cluster initiative was provided for system-wide improvements to the legislation, the creation of infrastructure, the implementation of specific investment projects and staffing issues.

Cluster “Transport Logistics” is in the framework of the Transport Strategy of the Republic of Kazakhstan till 2015, approved by Presidential Decree of 11 April, 2006. Since the start of this cluster project dealt with development and modernization of transport infrastructure (roads, railways, roadside service), as well as improved container, geographic expansion of road transport, bringing national standards in line with international standards and improving the regulatory framework.

### Main part

During the development stage project on a transcontinental road transport corridor Western Europe – Western China. The Ministry of Industry and Trade is working within the framework of the further development of the International Center for Cross-Border Cooperation “Korgos” for 2007-2011. The program is currently under development in the area of the Kazakh-Chinese border in the Panfilov district of Almaty region a special economic zone (SEZ) “Korgos – Eastern Gate”. And on the border of West Kazakhstan and Saratov regions of Kazakhstan and Russia – FEZ “Western Gate of Kazakhstan” and an international center for cross-border cooperation “Taskala – Ozinki” dry ports of international importance. Suggested to the creation these dry ports are integrated transport and logistics systems of Central Asian transport and industrial corridor, combining port and a special economic zone “Seaport Aktau”. In addition, the work on development of transport and logistics centers in other regions of Republic [3].

In turn, the container can be defined as a cluster of inter-sector education, which includes all activities directly or indirectly related to the organization of container transportation and integrated unified business process.

On the territory of the Republic of Kazakhstan on a permanent basis ply container trains on the following routes:

- Lianyungang – Dostyk – Almaty (general cargo);

- Almaty - Dostyk - Alashankou (general cargo);
- Hamburg - Aktau port - Galaba (humanitarian aid);
- Nakhodka - Lokot - Sary-Agach - Ablyk (parts of CJSC "GM Uzbekistan");
- Lianyungang - Dostyk - Sary-Agach - Ablyk (parts of CJSC "GM Uzbekistan");
- Tianjin - Dostyk - Almaty (general cargo);
- Hamburg - Riga Krasta - Ozinki - Galaba (cargo NATO);
- Aksu - Dostyk - Qingdao (ferroalloys);
- Aksu - Riga Krasta (ferroalloys);
- Chongqing - Duisburg (notebooks and monitors HewlettPackard).

During 11 months of 2010, a total of 1,008 container trains were missed.

In addition to data container trains were organized ad hoc send four container trains on the routes:

- 1) Aksu 1 - Kherson, one train with cargo - ferro-alloys;
- 2) Aksu 1 - Riga - Krasta 1 train with cargo - ferro-alloys;
- 3) Zhinishke - Riga - Krasta 1 train with cargo - ferro-alloys;
- 4) Buslovskaya - Zhaksy, with load - agricultural.

It has been launched the largest project in Kazakhstan to organize a transcontinental road corridor Western Europe - Western China, which runs through the territory of Kazakhstan and Russia with access to Western Europe. As part of the project provides for the reconstruction of all output to the corridor from Central Asia, including Uzbekistan and Kyrgyzstan. The total route length is 8,445 km, including in Russia - 2233 km, in Kazakhstan - 2787 km (subject to reconstruction - 2552 km), on China - 3425 km.

Blighty container transport system is experiencing difficulties with the development and increased levels of containerization and needs not only to modernize the infrastructure of container, but also a strategy for further development [4].

The cluster approach can be seen as a kind of frame, connecting the process of transportation, rolling stock and infrastructure into a single container-transport system of the country.

The basis of the formation of the cluster should focus on the exchange of information on the needs, engineering and technology among carriers, operators, infrastructure owners, cargo and related industries. Factors contributing to the exchange of

information and productive interaction within the cluster are: common property, equity participation in corporate ownership, national patriotism, etc.

The basis of cluster container should be industrial and commercial activities on the basis of an effective strategic alliance and business cooperation between the individual players - carriers, operators and customers [5].

Factors determining the efficiency of the container-transport system as a whole and of individual subjects in the cluster are:

- the development of the strategic partnership enterprises through the use of common infrastructure and innovation capacity;
- effective communication of business within the cluster;
- more efficient sharing of production and social infrastructure;
- reduction of production costs and specific investments for production;
- an increase in traffic and increase profitability;
- the validity and transparency of tariffs;
- the speed and reliability of delivery.

World practice shows that the operation of the most successful economies, with high competitiveness and sustainable economic growth, primarily achieved by factors that drive the spread of new technologies. Considering the fact that today's competitive advantage is almost entirely organized by the benefits of the technology of production, management, product promotion organization, the successful development of the competitiveness of the economic system is possible with the integrated use of cluster mechanism theories and concepts of modern innovation. Clusters of competitive industries that are successful, are presented in the form of a vertical chain, consisting of a large number of sequential steps, and from industries that provide equipment and other specialized resources. The formation of clusters accelerates the process in individual sectors, leading to a surge of innovation and strengthens the ability to compete on the world market [6].

Innovative cluster is the most effective form of achieving a high level of competitiveness. It is an informal association of efforts of various organizations (industrial companies, research centers, government bodies, universities, etc.). In addition, a variety of different sources of technological knowledge and connections facilitates a combination of factors to achieve competitive advantage and becomes a prerequisite of any innovation. Clustering forms are not spontaneous concentration of various technological inventions, as a system of dissemination of new knowledge and technologies.

Thus it is important for the effective transformation in innovations inventions and innovations into competitive advantages is the formation of a network of stable relations between all participants in the cluster [7].

One of the fundamental trends of world development – globalization of the economy. It is manifested in high rates of growth in international trade, factor mobility, migration of capital and financial flows. World exports in the last 50 years has increased by 10 times and continues to grow at a faster rate than the GDP of many countries [8]. In these circumstances, the role of immeasurable and the global transportation system increased. Transportation, being the material basis and the tool of trade between different regions at the same time serves as a factor in creating and organizing a unified world economy, contributes to the further development of the territorial division of labor and the implementation of regional comparative advantages. In this regard, the urgency of further improvement of the system of transportation, freight implementation of technologies that are appropriate processes mobility of factors of production in the global economy. In the first place it is projected to increase, container as the most modern form of international trade. Analysis of the international transport market shows that currently containerization in the world is more than 55%, i.e. more than half of all container cargo transported in suitable containers. It is predicted that this figure will be 70% in the near future [9].

In addition, the formation of strategic alliances and associations, shown in the consolidation of the container shipping market, the merger of shipping companies, the creation of transport and logistics groups, companies or container carriers, acquiring ownership interests in container terminals, providing a wide range of services and generate revenue not only from the transport activity. This trend suggests a transitional stage in the development of the main agents of the container shipping market, the essence of which is the gradual transformation of the transport and logistics groups in the future of global operators[10].

### Conclusion

Thus, the presence of the cluster container industry will maintain its advantage and not give it to those countries that are more likely to upgrade. The high competitiveness of the country is held on the

strong positions of individual clusters. In addition, the container cluster can be a means of competition in the global market while preserving the independence, combined companies focus their efforts more common against competitors than against each other.

### Corresponding Author:

Dr.Tokatmyssova Aliya Beisembaevna  
Kazakh Academy of Transport and Communications  
named after M. Tynyshpayev  
Shevchenko street, 97, Almaty, 050012, Kazakhstan

### References

1. Transport Strategy of the Republic of Kazakhstan till 2015, approved by Presidential Decree of 11 April 2006.
2. Moskvichev, O.V., 2008. Cluster policy in enhancing the competitiveness of the container-transport system. Forwarding and logistics, 3: 40-41.
3. Competitive Strategy: Technique for Analyzing Industries and competitors, 2007. Moscow: Alpina Business Books.
4. Zamry, A.A., 2006. Design and n by the finite-element method of three dimensional constructions in the environment of Structure 3D automated workplace. Moscow: APM, pp: 286.
5. Abramovich, I.I. and G.A. Kotelnikov, 1983. Gantry cranes for general use. Machine building, pp: 232.
6. Bielli, M., A. Boulmakoul and M. Rida, 2006. Object oriented model for container terminal distributed simulation. European Journal of Operational Research, 175: 1731-1751.
7. Bugaric, U. and D. Petrovic, 2007. Increasing the capacity of terminal for bulk cargo unloading. Simulation Modelling Practice and Theory, 15: 1366-1381.
8. El Sheikh, A. R., R. J. Paul, A. S. Harding and D.W. Balmer, 1987. A Microcomputer-Based Simulation Study of a Port. The Journal of the Operational Research Society, 38: 673-681.
9. Kia, M., E. Shayan and F. Ghotb, 2002. Investigation of port capacity under a new approach by computer simulation. Computer and Industrial Engineering, 42: 533-540.
10. Koh, P.H., J.L.K. Goh, H.S. Ng and H.C. Ng, 1994. "Using simulation to preview plans of a container port operations", proceedings of the 1994 Winter Simulation, ed. Tew, Manivannan, Sadowski, and Seila, pp: 1109-1115.

7/28/2014