

CLUSTER-LOGISTIC MODEL OF DEVELOPMENT ON THE NATIONAL TRANSPORT SERVICES MARKET

The article justified the necessity of using cluster-logistic approach to the development of the transport services market of the country. The conditions and the peculiarities of transport and logistics cluster are researched; the structure and the possible of socio-economic consequences are examined.

Statement of the problem. *Network nature of the modern market economy with high value communication, transport and infrastructure elements determines the need to change the ways and the forms of business organization with new models of implementation. On the other hand, the high dynamic of the market environment requires transport market actors form a new system of relations between the participants of the market space on the principles of competition, symbiosis and cooperation form the basis of the cluster approach.*

The world experience of developed countries proves the efficiency and the regularity of occurrence of various types of clusters. In recent years, the formation of clusters has become an important part of public policy. «Manifesto clustering EU» adopted by the European Commission in Brussels in February 2007 and the «European Cluster Memorandum» signed in Stockholm in January 2008, identified the cluster development as the main mechanism Competitiveness of EU member states, denoting the corresponding priorities of national programs . The principle of clustering is widely used in most EU countries and effectively realized at national, regional and municipal levels. For example, the economy of the Netherlands includes 20 clusters of Denmark in 40% of companies provide 60% of exports also operate in the cluster, and Austria - are similar to the formation of cross-border with Hungary, Italy, Switzerland and Germany. Feature Cluster formation processes in Ukraine is oriented perspective clusters of traditional industries - construction, agriculture, metallurgy, light industry, the priority is the development of European clusters, especially in high-tech industries and service sectors, including transport and.

It is necessary to point out that market transformation taking place in the transport sector of the country for over twenty years, have resulted to the formation of the transport service market (TSM), which is an important

connecting link in the system of material production, distribution and consumption of goods. From the functioning of this market as a special mechanism of commodity turnover depends minimization of costs, which influences on the competitiveness of products that are supplied to domestic and foreign markets. In this connection, the market the transport service market increased requirements on the organization of transport services towards providing a new level based on optimization of transportation processes, which causes necessity of logistic approach.

Under such conditions the development and implementation of appropriate market mechanisms of ensure the effective functioning of the TSM is possible only on the basis of an integrated combination of cluster and logistic approaches which are implemented in the form of transportation and logistics clusters (TLC).

Analysis of the recent research and publications. The study of the nature and theoretical aspects of the formation of economic clusters was conducted first of all by foreign authors as E. Dahmen, E. Lymers, M. Porter, J. Suominen, M. Todaro, J. Tolenado, M. Feldman, M. Fisher, D. Jacobson and A. Young. However, in the recent years interest to the cluster approach increased among the scientists of former Soviet Union. The publications of ukrainian and russian scientists devoted to the study of concept features of clusters, including A.I.Amosha, M.P.Voynarenko, V.I.Dubnitskiy, T.B.Kleiner, V.Kystanov, N.V.Kopylov, I.Korobeinik, S.Kuritsyna, V.I.Ljashenko, N.A. Mikula, S.Sokolenko and other authors. Among the scientists who have concentrated their attention on the problem of the formation of logistics clusters, it should be noted S.I.Gritsenko, L.A.Myasnikov, T.Y.Yevdotiyeva, I.G.Menshenina, L.Kapustin and others.

Sorting out the unsolved aspects of the problem. Acknowledging the importance of fundamental theoretical and empirical research of logistic processes and goods movement, cluster shape of the economy, we should note the lack of a comprehensive study of the problems on the transport services market based on the introduction of cluster-logistic model, which may be a prerequisite not only for economic growth and competitiveness of transport, but also for the economy at different levels of functioning.

In this connection it is necessary to study the conditions and characteristics of the formation of cluster-logistic models TSM, which led the purpose and content of this work.

The main material. The current stage of social and economic changes in the country is the stage of urgent institutional reforms aimed at creating effective market mechanisms. The main national interests in the economy are concentrated in the following areas: competitiveness, its efficiency and sustainable growth, eliminate structural imbalances and the country's

integration into the world economy. In solving these objectives, the role of transport is undeniable, because without his persistent work, development of transport infrastructure, new efficient schemes of delivery based on logistic processes of goods movement can not guarantee the effectiveness of providing transport services, also should be added that in Ukraine, which has untapped potential of providing, particularly in the area of transit transportation, issues of forming transportation and logistics clusters (TLC) take on special significance.

It should be noted that market of transportation and logistics services is one of the most dynamically developing in the world for the last decade. Therefore, the formation of national transport and logistics clusters identified among the main priorities of not only economically developed countries but also developing ones. For example, in order to diversify the national economy as the basis of the Strategy of industrial-innovative development of Kazakhstan till 2015 entrusted the formation of national clusters, including in the field of transport and logistics services. The main mechanism of problem solving in the competitiveness of the global economy is the development of a competitive national strategy development and regional innovation systems, which includes a set of measures that are implemented at the macro, meso- and micro-levels, on each of which a cluster policy takes the priority position. TLC is the one of the highest priorities of existing clusters.

Unfortunately, in Ukraine, in contrast to economic reform in neighboring countries of the West - the EU and the East - CIS, by this time no systematic law on the creation of institutions supporting clusters, there is no approved the concept of cluster policy at local, regional and national levels. At present, Ukraine has just developed a central government regulatory framework of cluster formation principles of the state policy. It includes projects «Concept creation of clusters in Ukraine» (2008), «Concept of the national target program for the development industry in Ukraine to 2017» (in 2008, provided for the development and implementation of industry cluster model), «National Strategy of formation and development of cross-border clusters» (2009).

Instead, the Annual Address of the President of Ukraine to the Supreme Council of Ukraine in 2012 emphasized the importance of support, both at the level of state and local governments in the creation and iintegration of spatial forms of self-organization and inter-regional economic systems, such as clusters. [1, p.114]. In recent years, the development of clusters is one of the priorities of economic policy in the regions of Ukraine. Thus, development of clusters has become one of the most important trends in the development strategies of many regions of Ukraine, which began

implementing cluster initiatives together governors, business and non-government organizations.

According to the «cluster concept in Ukraine» clusters will be defined as the enterprises combinations in the one sphere of activity, related suppliers of equipment, components, production services, infrastructure and research centers. It is proposed to identify four types of clusters: production (union of auto, shipbuilding and aircraft manufacturers), technological innovation (geographically localized companies related by the production of innovative products), travel, transportation and logistics.

It is necessary to point out that the traditional economic and territorial division of the country, as well as a variety of natural resource, economic, industrial and infrastructural conditions lead to the creation of clusters at the level of regions. Linking territory cluster with the administrative-territorial division, on the one hand meets the conditions of interest and responsibility of local authorities, on the other hand, cluster members should to fulfill the requirements of the authorities and pay taxes to local budgets, which allows to measure the cluster according to official statistics.

Taking into account that transport being the infrastructure sector which provides conditions for effective functioning of the economy and at the same time includes proper infrastructure maintenance, availability of the developed system of transport networks and terminal facilities of transport and logistics infrastructure such as transport and logistics center are objectively necessary preconditions for the formation of regional TLC.

In general case most often the term «cluster» means the network of companies and organizations of interconnected and supporting industries, which is concentrated in a particular area and aims to obtain a synergistic effect and increase the competitiveness through competitive cooperative interaction. In the transport sector, the clusters, namely TLC, are considered as geographically localized group of interconnected companies, specialized in storing, tracking and delivery of goods and passengers, and organizations serving infrastructure and other organizations, mutually reinforcing strengths and side of each other and realize competitive advantages of the area [2, p.49].

By their nature, TLC is the serving cluster that meets the needs of other members by providing transportation and logistics services, providing the link between economic subjects by moving flows in time and space. From this point of view, TLC at the particular region has a dual nature and can be considered as from the position of the independent formation, namely an independent form of cluster organization in interaction of subjects transport market based on integration, and from the position of

infrastructure elements, providing transport and economic connections of the particular region or area.

In the first case, the objective of this cluster is to provide the interaction between the elements of a cluster organization to improve the competitiveness of each participant on the basis of the benefits of synergistic properties. In other words, transport and logistics cluster is formed as an independent form to manage the processing chain of the material flow transfer from the suppliers of raw materials, production companies, which can be the cargo owners, to consumers interacting with each other within a unified process of creating value, contributing to the development and improvement of logistics capabilities in certain territory. In this case, the cluster has the following tasks:

- allows to form and develop basic terminal and logistics structural elements by creating the terminal for cargo processing , terminal and warehouse multi-purpose complexes, providing the whole set of warehouses, customs and accompanying services;*

- increases the competitiveness of transport corridors;*

- helps to reduce the share of logistics (primarily transport) costs in gross domestic product;*

- ensures cooperation and integration of small and medium-sized logistics organizations, including transport, forwarding, storage service providers and others to the total logistics system;*

- allows to quickly adapt internal structures and external relationships to unstable market conditions.*

In the second case, the cluster provides the flow of streaming processes between manufacturers strategically important goods for a specific region or territory, their customers and other infrastructure entities. The infrastructure cluster contributes to the solution of such problems as:

- providing effective territorial construction transport and logistics and terminal-handling systems for cluster traffic service;*

- optimization process of delivery involving several modes of transport;*

- creation of interoperability, planning, control adjustment in transport hubs and providing of optimal traffic service;*

- formation of logistics and information system that ensures the exchange of information between members of the cluster.*

The most important functional component of TLC are transport and logistics companies, as well as transport and logistics chains that form its core. Namely the core of the cluster formation is the main source of growth in the competitive advantages of the region and the most investment-attractive component.

The providing subsystem includes: financial credit system, the center of

which usually is regional bank with an extensive branch network. It is an important part of the cluster, which is considered as its competitive advantage.

the government agencies and local authorities plays the essential role in providing the unity of TLC, creating a framework of participants interaction in the formation of the integration, forming an international image and developing the transport infrastructure. In addition, the measures from the government relate to stimulate the development of three factors of competitiveness cluster - human resources, infrastructure and research capacity, creating the factor conditions for innovation development of the cluster.

Scientific and technical as well as human resources component of TLC provides the formation of clusters potential competitive of advantage because the firms that are in cluster formation, anticipate better the trends in demand and promptly respond to them by offering innovative products and services through close cooperation and interaction. Constant interaction facilitates formal and informal knowledge sharing, collaboration between organizations with complementary assets and skills, providing a synergistic effect.

The formation of clusters connected with establishment of cooperation between the participants, which resulted are formed economic, technological and organizational conditions for collaborative activities. Relationships within the transport and logistics clusters based on trust interaction with carriers, customers, intermediaries, customs, banks and a number of other contractors. Development TLC is also based on the conclusion of partnership agreements between the various branches of transport for: providing comprehensive services to customers, development of cooperation between them, creating a single logistics database in order to select the optimal route of customers freight and analysis of all transportation services, and analysis of freight flows, creation and development of an integrated transport infrastructure.

So TLC as sustainable partnerships related organizations has potential that exceeds the capabilities of individual components. This increase is the result of collaboration and effective use of the partners possibilities based on long-term combination of cooperation and competition.

The main competitive advantage of the cluster model is the creation of clusters, so-called «value added» or the formation of new value through synergies, i.e. the accumulation and mutual reinforcement of the existing resources. In the current economy the main advantage and the main source of efficiency is a novelty in any form that meets industry specificities: a new method, a new service quality, new style, new knowledge.

Today this «newness» is the undisputed attribute of economic leadership and the evidence of growth and progress providing the implementation of cluster development model; in the TLC is formed a new quality transport services. Transport and logistics cluster consists of firms that perform different functions, but united by the one process of transportation and delivery of a goods from manufacturers to their customers, result of which is a complex product - reliable and quality service transport, created by the efforts of all cluster members from those who are engaged in scientific developments and manpower training, to the transport companies and logistics intermediaries.

Among the already existing clusters in the transport sector it is necessary to pick out only two from them. It is transport and logistics cluster of Transcarpathia and transport logistics cluster «Southgate Ukraine» (Kherson). Concept unification of integration efforts through the clusters used by other regions of the country, particularly Zaporizhia region as a platform in which to search the most suitable for this region models the pooling of resources. Thus, in 2010 in the area it was carried out large-scale cluster study and on this basis was proposed to create a number of regional clusters, among which TLC had an important place, providing the implementation of the competitive advantages of the area. Potential members of Zaporizhia area TLK with the centers in Zaporizhia, Melitopol and Berdyansk may be (see the figure 1): The Dnieper railway and international airports Zaporizhia and Berdyansk, long distance bus station, transport firms «Diesel» and «Avtosivt», enterprise «Melavtotrans», sea and river ports [3]. Odessa, Donetsk, Crimea regions and others can be attributed in the number of potential areas for creation of clusters in the next two - three decades.

However, in most regions of the country to the present time has not yet formed a «critical mass» of necessary preconditions for the emergence of free clusters in the transport sector. In these circumstances, it is the state should initiate the creation of transport and logistics clusters, developing a national strategy in advanced development [4] and taking the appropriate program the main components of which are: regionalization, the maximum connecting of the particular regions enterprises to the powerful international transport corridors [5] on the macro level, transport and logistics or logistics centers on the micro level using information technologies.

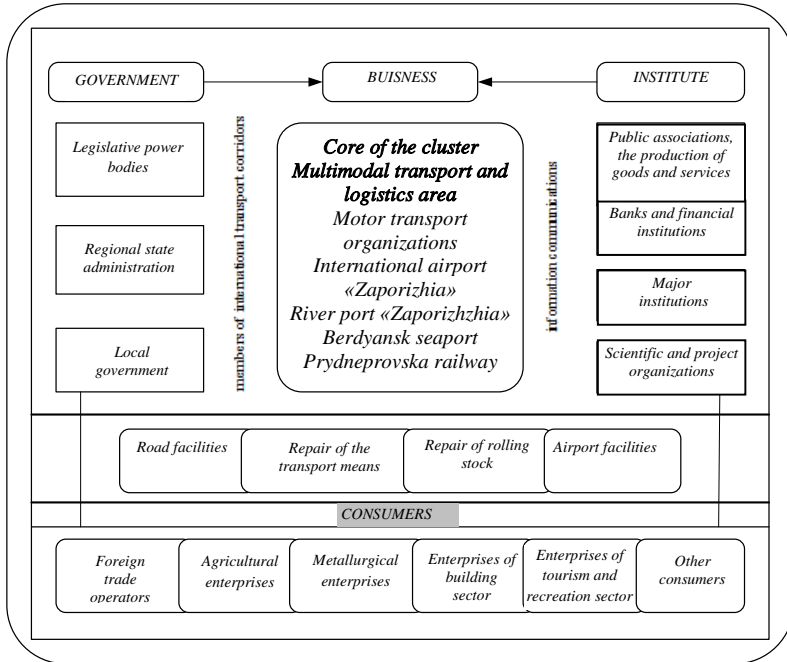


Figure 1. Structure of transport and logistics cluster of Zaporizhia area

The main goal of the strategy is to enhance the competitiveness of the national economy in the transport market, which involves integration converting of the Ukrainian economy towards cooperation network of subjects in the form of regional TLC. It not only solves the problem of optimizing freight and traffic flow, reducing of logistics costs, unloading of the transport network, but also provides a long-term impulse to the development the region's economy, which activates the creation of new competitive advantages.

Consideration of the cluster-logistic approach in the implementation of already approved Transport Strategy of Ukraine till 2020 should ensure continuity and accelerate advancement of commodity and material flow, the formation of commodity logistics network, expansion of interregional and international transportation and economic relationships etc. Further development of the economy on the basis of this approach involves the creation of core network TLC and clusters in the formation of integrated transport and logistics system of the country. Under these conditions, the overall socio-economic results go beyond the purely solving transportation

problems and solving problems relating to broader plan for the introduction of innovative logistics technologies and promoting innovative processes that will allow increasing the competitiveness as regions and specific industries. However, the main final result is the formation of a new way of thinking and way of doing business. This will allow to fully realize the potential of logistics, both micro and macro-level, through clear coordination of all parties involved in the reproduction of GDP.

Conclusions. *Network nature of today's economy with increased role of transport infrastructure component in ensuring the competitiveness causes necessity cluster forms of business organization on the transport services market. Formation TLC designed to provide sustainable development of TSM, which guarantees of satisfying the demand for high-quality and comprehensive transportation services. However, the ultimate goal is a full realization of the potential of cluster structures and logistics transport market and the increase the competitiveness of all members of the cluster through: scale, collaborative projects, access to the specific material and human resources, knowledge, technology. But the main advantage of using such approach becomes the possibility to achieve significant economic benefits by reducing at least 30-40% of the total logistics costs for distribution in the process of transportation, storage and distribution of commodity and material flow based on the optimization of logistics delivery schemes that impact on prices and competitiveness of domestic products on world markets.*

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