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PERSPECTIVES OF FORMING MARITIME LOGISTIC CLUSTERS IN GEORGIA

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Abstract. The purpose of this research is to estimate the prospects and possibilities of establishing maritime logistics clusters in Georgia. Cluster forms of activities, particularly maritime logistic clusters, have been the object of the study in this article. The main method of the research is a comparative analysis of the advantages and limitations of cluster forming and functioning of maritime logistics.

Development of maritime logistics clusters, in the article, is considered as using of transport industry potential through the development of logistics processes for the creation of additional value. Sea ports are considered as important links in the logistics chain. Creation of maritime cluster was studied in the article on the basis of Batumi and Poti Sea Ports, what should increase the competitiveness of both the port and other companies – cluster members. Creating a cluster provides synergies and new opportunities for innovative handling of technological operations in port logistics. The implementation of the logistics cluster business model based on the Batumi Sea Port should facilitate the involvement of industry, transport and logistics companies in the impact zone of the port logistics.

The result of the maritime logistics cluster operation should strengthen the position of Batumi Sea Port in Georgia, both in the terms of transit goods maintenance and in the economic development of country as well.

The paper contains the main prerequisites for the forming and functioning of maritime logistics cluster in Batumi and Poti Sea Ports: significant untapped potential in marine, cargo storage and air cargo logistics; completion of Georgia-Turkey railway will open new possibilities in efficient transportation.

In the article was concluded that marine and railway development will stimulate road transport and logistics centers development. Development of transport system will significantly improve competitiveness of Georgian products in prise.

Key words: seaport, logistics, maritime logistics cluster

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1 INTRODUCTION

Advantageous geographical location of Georgia on the Caucasus Transit Corridor (CTC) has highlighted the importance of national transport and logistics sector as a stimulating factor of growth for other economy sectors. Taking into account the strategic nature of the sector, the Government of Georgia has identified it as one of the priorities to develop and explore the ways of regional hub creation. The objectives of modernization and development of Georgian transport potential actualize the need to improve the competitiveness of the regions by strengthening their infrastructure and innovative development. Regional transport and logistics clusters formation and development are the most effective tools in this direction.

Being the only access to the Black Sea for the Caucasus, Georgia's sea ports have to be the centers of logistic clusters.

2 MAIN TEXT

Georgian ports functions as logistics centers are investigated on the basis of a number of reasons, the main ones are:

- By the end of the 20th century the world leading ports evolved into logistics centers and their work shows that: by the years of operation they have achieved competitive advantages;
- In case the ports are not logistics centers, small logistics companies, which do not have their own oil and container terminals, assume this function and perform the role of intermediaries. Then the length of logistics chain increases at least per one unit, that influences on the cost of turnover.
- It is profitable for cargo owner to deal directly with the seaport as a logistical partner, because the port is a major constituent supply chain node.

Seaports are concentrated on the traffic flows and are important supply links in the transport and logistics chain, thereby they representing a cluster, the core of which is the port. The purpose of port cluster creation is to increase the competitiveness of the transport hub. It has economies of scale and more opportunities to improve handling of technological operations. Obtaining the free economic zone status is a catalyst for the formation of port clusters.

Strengthening Georgian port functions and their transformation into a logistics center will improve competitiveness, both from the standpoint of transit goods maintenance and for the development of the Georgian economy.

Logistics cluster is considered as a group of competitive companies and enterprises (industrial, commercial, transport, logistics), that are linked geographically and cooperate on a voluntary basis to improve the overall efficiency of the logistics process. Clusters are recognized as one of the most efficient production systems of the globalization era and Knowledge Economy.

The literature review on the formation of the transport and logistics clusters research allowes to determine the main synergies from their creation (Fig. 1). [1-5]

World experience of transport and logistics clusters operation shows that their activity is effective in the areas with high transit potential. Taking into account the favorable geographical position of Georgia, increasing its transit potential is a key task, which was defined on the government level as one of the priorities in the economic development strategy "Georgia – 2020".

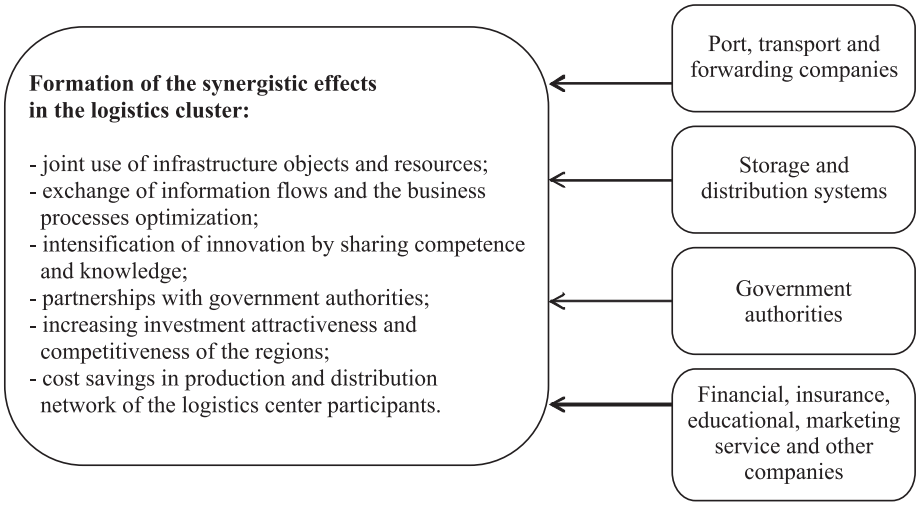

Figure 1 Types of synergistic effects in the logistics cluster
(adopted from http://www.rusnauka.com/36_PVMN_2013/Economics/11_152118.doc.htm)

The completion of the expressway, railway route Baku-Tbilisi-Kars, construction of a new cargo terminal and the extension of Kutaisi airport runway, as well as the completion of the deep-sea transport in Anaklia are priorities to enhance the transit function of Georgia.

The development of Georgian transit potential is seen as a revival of the new "Silk Road". Thus, according to experts' opinion, the opening of a new railway line will reduce the time required for transportation of Chinese goods to Europe to 20 – 25 days. Kazakhstan also intends to join the project – an agreement on the establishment of a coordinating committee of the Transcaucasia route was signed in Astana. According to the draft, cargo from China will go on Kazakhstan railway, then through Aktau port (Caspian Sea) to Baku, where by railway to the Georgian Black Sea ports – and from there to Europe. China, which is strongly investing in the development of transport routes, is working on two directions – the first – through Russia, the second – on the new "Silk Road", through Kazakhstan, Azerbaijan, and Georgia. According to preliminary calculations, trade between Turkey and China in 2023 will increase from 24 to 100 billion dollars; significantly the transport corridor will play an important role.

Taking into account Georgia's existing transit prospects it is important to assess the dynamics of cargo transportation in the country (Figure 2).

These data are indicated a positive trend of increasing turnover by main modes of transport in Georgia. Reduced traffic on railway can be compensated by increasing transit opportunities, in particular, by the developing transportation of goods from the Caspian region to Turkey and Europe.

On the other side, obtaining the effect of the railway development is not possible without involving of Georgian seaports resources and the using of Georgia's access to the Black Sea. In this aspect the creation of logistics clusters based on the existing infrastructure of the Batumi and Poti ports is very perspective (Figure 3). [7,8]

As it is vivid from the chart, the volume of cargo processed in the Batumi Sea Port in 2014 in comparison with 2013 year decreased to 6.3 million tons, while in the port of Poti increased on 16%. With regard to marine terminals, the volume of cargo processed in the Supsa terminal in 2014 compared to the same period of the previous year increased by 5%. Despite the fact that the Kulevi terminal is characterized by a decrease

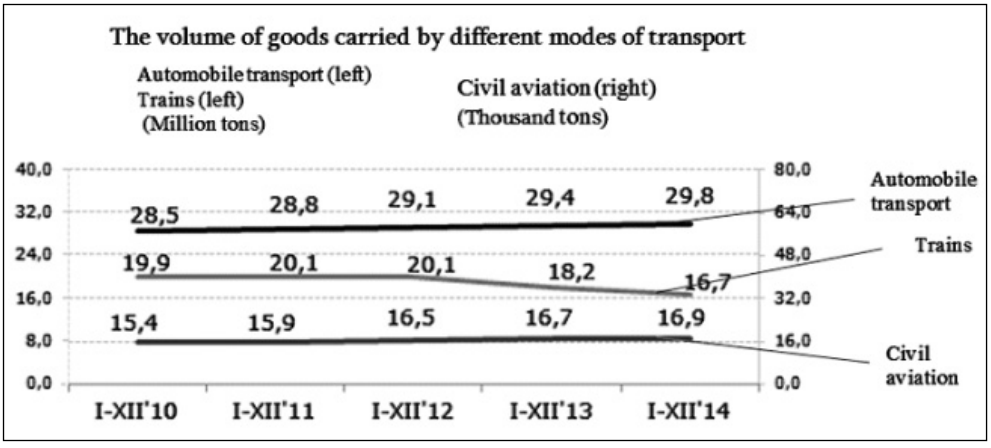

Figure 2 The volume of goods carried by different modes of transport [6]

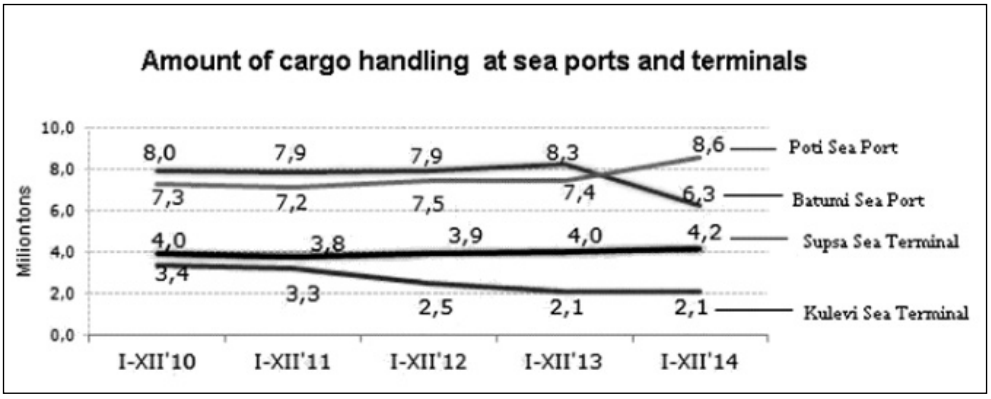

Figure 3 The volume of cargo handling at Georgian sea ports and terminals [6]

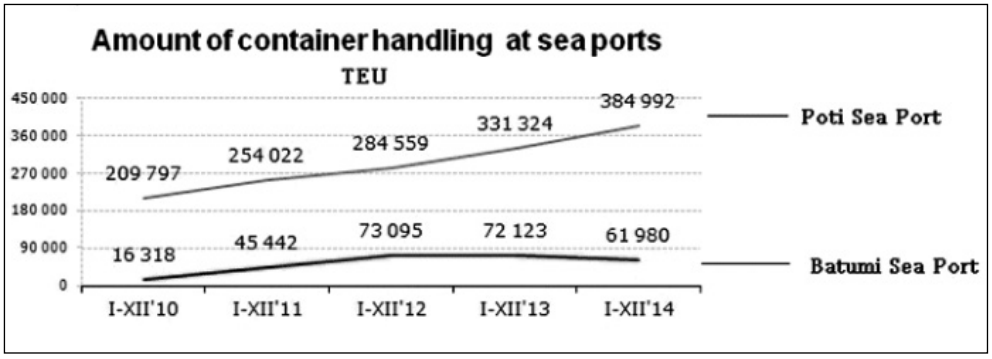

Figure 4 The volume of container handling at Georgian sea ports [6]

Table 1 Forecast indicators of oil production (million barrels per day)

County/year	2015	2020	2025	2030
Azerbaijan	1.0	1.0	1.1	1.1
Kazakhstan	2.7	3.1	3.4	3.7
Turkmenistan	0.3	0.3	0.3	0.3
Uzbekistan	0.3	0.3	0.5	0.6
Total	4.3	4.8	5.3	5.7

Source: International Energy Outlook, Energy Information Administration (EIA)

in this indicator, it has not caused a significant reduction of cargo volume in the industry.

Poti Sea Port for several years has been a leader in the processing of container cargoes. In 2014, there were processed on 83% more containers than in 2010 and on 16% more than in 2013. Batumi Sea Port has reached the highest growth in 2012, although in 2014 compared with 2013 it decreased slightly and amounted to 61,980 TEU.

The important role of ports as the central objects of the logistics center is explained by their specialization in the transshipment of oil. Expanding of transit routes passing through the territory of Georgia, is also a requirement of the global world economy, due to large reserves of carbon raw materials in the Caspian Sea.

The forecasted growth of oil production in the Caspian Sea region will increase demand for its transportation by tankers (Table 1).

The table data shows that the forecasted indicators of oil production in the Caspian Sea region is growing rapidly, and by 2030 will reach a total of 5.7 million barrels per day. Such amount of oil can't be passed through the currently existing oil pipelines and it is expected that part of it will be exported from the Georgian Ports passing through the railway. If Georgian maritime infrastructure by that time will not be ready for the above mentioned processes, the loads will be redistributed to other alternative ways.

For this purpose the Turkish Government intends to increase the capacity of the Bosporus Strait. New channel called "Istanbul Channel" will be more the Suez and Panama canals. Channel length will be near 40-45 kilometers width – 140-150 meters, depth – 25 meters. The capacity of Channel planned near 160 ships daily, including oil tankers.

3 CONCLUSION

Development of maritime logistics clusters is the implementation of transport industry potential through the development of processes that bring added value in the field of logistics.

Georgian sea ports concentrated traffic flows and are important links in the supply of transport and logistics chain and should be the core of logistics cluster. Creation of a maritime cluster on the basis of Batumi and Poti sea ports should increase the competitiveness of both the port and other companies – cluster members. Creating a cluster provides synergies and new opportunities for innovative handling of technological operations in port logistics.

The implementation of the business model of maritime logistics cluster based on the Georgian sea ports should facilitate the involvement of industry, transport and logistics companies in the impact zone of the port logistics.

The result of maritime logistics cluster operation should strengthen Batumi and Poti Sea ports position not only in Georgia, but also in Caucasus region. It

should be implemented both in terms of goods and raw materials transit maintenance and in the economic development of country as well.

The main prerequisites for Georgian maritime logistics cluster forming and functioning are:

- availability of significant untapped potential in marine, cargo storage and air cargo logistics;
- completion of Georgia-Turkey railway that will open new efficient transportation possibilities;
- port and railway logistics development that will stimulate road transport and development of innovative logistics centers;
- development of transport system will significantly improve the cost of Georgia's products competitiveness.

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