LOGISTICS CORRIDORS ON THE BASIS OF CLUSTERS

Ushakov, Dmitry V., *LLC Freight forwarding Alliance East-West, Moscow, Russia.*

ABSTRACT

During the period of economic instability producers of goods even more strongly want to be confident in their product sales at remote and not always controlled markets. The importance of transport component and the role of freight forwarders throughout all links of the supply chain increase. In this situation, the formation of logistics corridors, ensuring sustainable transport links between regional clusters, can be an effective tool for creating favorable conditions for stabilization and increase of goods turnover.

Keywords: region, sales markets, supply chain, cluster, logistics corridor, trade flow, logistics operator, system of logistics clusters.

Background. *One way of the intended use of logistics clusters is to ensure stability of passage of trade flows through it, exception of product distribution delays and minimization of administrative costs during movement of goods across transport infrastructure. At the exit of the logistics cluster trade flows can be sprayed into many directions, with a length of several thousand kilometers, as well as of a few tens of kilometers. Some of them end their life cycle either on sales markets or in industries that transform them into other products. However, the remaining part continues its movement while undergoing processing at transport nodes, railway stations, ports, terminals or in logistic clusters.*

Objective. *The objective of the author is to consider logistics corridors on the basis of cluster approach.*

Methods. *The author uses general scientific methods, comparative analysis, evaluation approach, graph construction.*

Results. *The impact of logistics clusters on intensity of trade flows in the process of moving from places of origin to the markets is reflected in Pic. 1 and 2.*

Expediency of transport or freight forwarding services arises when, on the one hand, in shipment region favorable conditions are created for production of goods, and on the other hand, in the unloading region, there is a steady demand for transported goods. Pic. 1 shows movement of trade flow from the place of production of goods through the transport node into the market. Intersection of graphs of demand DD and supply SS gives point E, which characterizes the equilibrium price for this product in the place of its production, which is equal to 3 conventional units. Then, trade flow, undergoing processing in a transport node, adds to its cost 2 more conventional units and enters the region of the sales market of goods.

In this case, the increment of commodity prices of 2 standard units includes not only the cost of processing at a terminal, port or railway station, but also directly charge for shipping, that is, train fare, sea freight or cost of transportation by road. Typically, this value is defined as a transport component in the price of goods. New price of 5 conventional units is slightly higher than the established in the equilibrium scale and enters the excess area. This means that the seller company needs to take extra effort, to spend money on advertising, providing bonuses and discounts to customers, organization of after-sales service, etc. In short, the total price of goods increases by a certain amount.

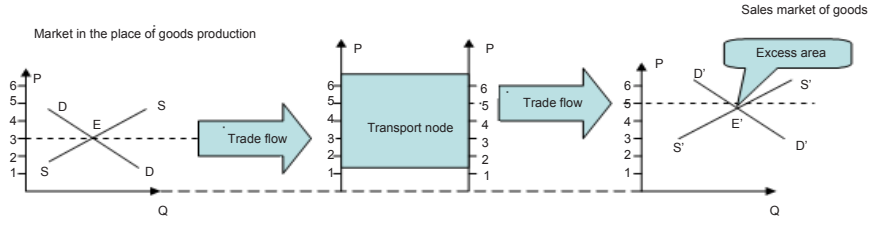
With the passage of trade flow through the logistics cluster total logistical costs are much less than during passage through the usual transport node and the goods enter the market with a more competitive price.

Pic. 2 shows that with the new gentle price goods fall in the deficit zone, thereby causing increased demand. Increased demand allows shippers in a place of shipment to increase production capacity and to increase intensity of trade flow. Not always, however, it is possible to provide an appropriate volume of consignments of goods that the market requires at the moment, and only with the help of structures of logistics cluster a steady potential to intensify the trade flow is formed, logistics corridors are created.

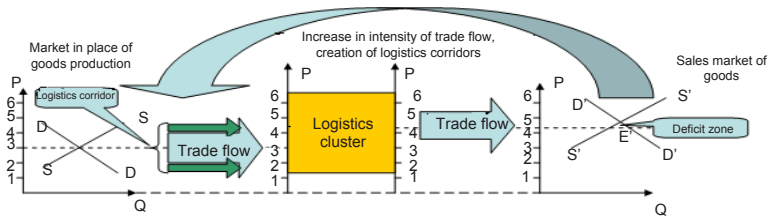
Logistics corridors in this context refer to the direction of movement of trade flows between transport and logistics clusters or between transport and logistics and industrial clusters.

Shaping the network of logistics corridors between properly oriented logistics cluster, the region receives a stable economic system capable of implementing short-term and medium-term programs. Companies that produce goods in the region, can confidently evaluate their sales potential, with the guarantee of logistics services in the course of freight transportation.

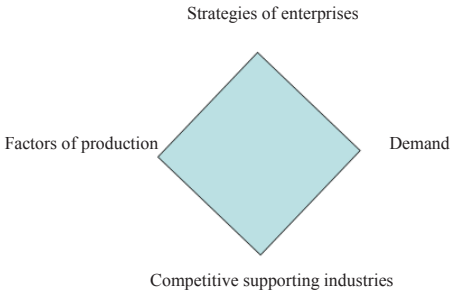
The system of logistics cluster, interconnected via logistics corridors, becomes a frame of sustainable development of the region's trade and industrial complex, even in a period of instability of conditions of trade and transport markets, financial and administrative systems.Manufacturers, who while



Pic. 1. Movement of trade flow from place of goods production through transport node to sales market.



Pic. 2. Movement of trade flow from place of goods production through logistics cluster to sales market.



Pic. 3. Porter's rhomb.

designing their strategic development plans take into account costs of transport services during the passage of goods via logistics corridors, significantly enhance competitiveness, are able in an unfavorable situation for themselves on sales markets to reduce the price of goods remaining in the profit zone.

M. Porter defines the most favorable conditions for creation and development of clusters in the form of vertices of rhomb (Pic. 3).

Criteria of optimality of conditions for functioning of clusters can be expressed by the formula
K = {F, D, S, B},
where F are factors of production: land, capital, personnel;

D is demand, which provides steady sales of products and services produced at the enterprises of the cluster area;

Table 1

Aspects of cluster activity

Factors of production	Land and other natural resources
	Capital
	Personnel
Demand	Demand for goods and services
	Long-term demand
	Ways of demand formation in foreign markets
Strategies of enterprises	Strategy for cooperation of enterprises
	Competitive strategies
	Analysis of capacity and potential of markets
	Motivation of personnel
Competitive supporting industries	Providing marketing approach in the sectors
	Monitoring of customer's preferences
	Competitiveness in foreign markets

S is orientation of strategies of enterprises in cluster, on the one hand, on mutually beneficial cooperation, and on the other, on competition;

B is competitive industry, whose purpose is to create products in accordance with consumer preferences.

The whole complex of issues, which, according to Porter, is necessary for creation and development of clusters is displayed in Table 1.

Logistics corridors can be configured in several ways, the most important of which are classic or traditional, as well as one where the creation of the corridor is performed by the logistics operator.

Traditional (classical) way is that logistics corridors are formed between the already developed and functioning clusters. Laying the favorable framework conditions for logistics services in the areas of shipping and unloading of goods, cluster management bodies largely determine the success of the operation of a logistics corridor. As a rule, the role of consolidator of efforts to ensure the efficiency of the movement of trade flow through this kind of corridor lies with the government agencies and industry organizations.

Formation of logistics corridors by the logistics operator is essentially a process of simultaneous creation of logistics corridors and infrastructure elements of either already developing cluster, or transport node that becomes potential transport and logistics cluster. In this case, the level of service throughout the journey from the place of shipment to the place of destination of the goods may be much higher, and the time of implementation of logistics operations may be much less. Logistics provider builds a supply chain directly according to his own needs, thereby avoiding divergent decisions that are possible when in creation of logistics corridors by state, administrative and outsourcing organizations.

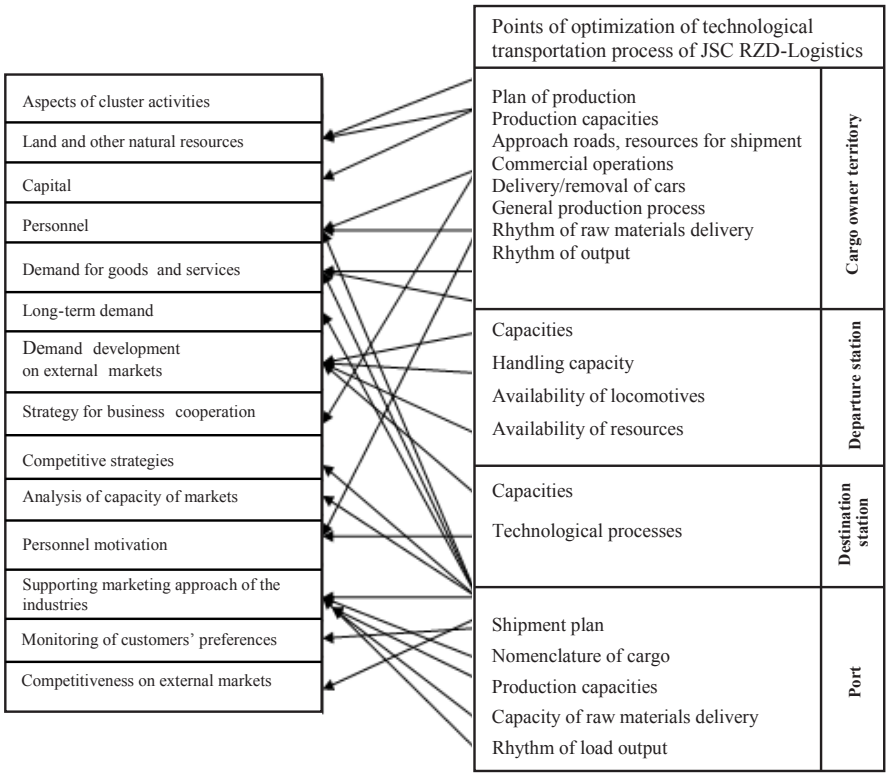
As a result, links of logistics corridors, as well as corresponding structural elements in clusters (transport nodes), formed by a logistics provider, fully comply with all aspects of the logistics concept 7R. Trade flow, following through such logistics corridor:

– Is definitely in demand, has necessary quality and level of intensity, moves with sufficient speed;

– Has an optimum time, right direction of movement and an interested buyer at the destination;

– Gains a maximum effect of reducing costs both in the points of departure and destination, as well as during transit of goods through the logistics corridor.

As an example of such an organization of logistics corridors, one can cite experience of coal delivery from Siberia to Nakhodka port by operator RZD-Logistics. The specialists there-of have identified points of optimization of technological processes when the coal passes from the territory of the cargo owner to the port. Correlating these points with aspects of functioning of the cluster (see. Pic. 4), we inevitably come to the conclusion that the vast majority of their activities is determined by the efficiency of logistics specialists. And this aspect reflects



Pic. 4. Ratio of points of transportation optimization of JSC RZD-Logistics and aspects of cluster activities.

crucial importance of these aspects and criteria of optimality of the cluster as personnel and its motivation.

Conclusion. *There is a demand for logistics clusters, and the success of projects with simultaneous formation of logistics corridors and structures of transport and logistics cluster is possible only with a high level of motivation of professionals, able to handle all the complex processes of goods movement from origin to destination.*

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Information about the author:
Ushakov, Dmitry V. – Ph.D. (Economics), deputy director for intermodal transportation of LLC Freight forwarding Alliance East-West, Moscow, Russia, ushakov@refperevozki.ru.

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