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## LOGISTIC CENTERS AS A TOOL OF TRANSIT DEVELOPMENT IN UKRAINE

Yulia Ugnenko<sup>1</sup>, Petro Gorbachiov<sup>2</sup>, Ye. Voronova<sup>3</sup>

Kharkiv National Automobile and Highway University, Ukraine

E-mails: <sup>1</sup>j.ugnenko@mail.ru, <sup>3</sup>hnady\_voronova@mail.ru

**Abstract.** In the given paper the author provides analysis of logistics centers significance for transit transportation development. The paper brings an overview of current situation of logistic centers development in Ukraine. The Ukrainian transport network has become attractive for foreign trade cargo. It is connected with construction of a transport-logistical system on the basis of modernization of the transport infrastructure in use and introduction of logistic approaches of management into the system of interaction of all the participants of the cargo delivery chain. It has been determined that creation of logistic centers is one of the main measures for improvement of the transport-logistic infrastructure in Ukraine.

**Keywords:** freight volume, modes of transportation, transit, logistic centers, service, transport policy.

### Introduction

Due to geographic location of Ukraine the transport sector, and the freight transit in particular, plays a key role in the economy of the country. Ukraine has unique possibilities for participation in the international transit. The paper deals with the actual situation in Ukraine concerning the logistic centers development. It presents the basic features of logistic centers as well as the activities connected with transport, logistics and goods distribution.

Analyzing the Ukrainian transit corridors at the state level it must be noted that Ukraine, as a priority, recognizes the development of an efficient, safe, multimodal and competitive transport system. Due to the European integration Ukraine faces the problem of transit transport infrastructure development, especially highways and customs check points development.

More than 80 international and interstate customs check points have been already built and opened. Among them: “New Yarylovychi” (carrying capacity – 1000 vehicles per day), “Tagodin 1” – 2100, “Ustiluh” – 600 “Shegyni” – 1500, “Krakovets” – 5000, “Chop” (3300 vehicles per day), etc. The customs checkpoint “Krakovets” located on the border with Poland has become one of the transport chains of Highway A-4 Lisbon – Caucasus. The priority is to construct and develop logistic centers there.

### The main part

In Ukraine cargo transportation is performed by us-

ing four modes of transportation: maritime, railway, road and air (fig. 1) and (table 1).

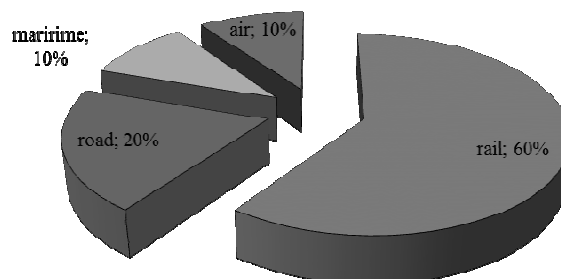


Fig. 1. Freight traffic by mode of transport in Ukraine in percentage in 2013

Table 1. The comparative analysis of cargo flows

Month	2011 year	2012 year	2013 year
January	59	122	143
February	83	139	258
March	121	229	209
April	99	174	190
May	103	158	175
June	103	175	173
July	163	242	240
August	169	305	224
September	181	271	225
October	163	328	202
November	184	244	131
December	139	159	117

A logistic centre is a centre located in a definite area within which all the activities relating to transport, logistics and goods distribution both for national and international transit are carried out by various operators on the commercial basis.

Logistic centers operators can support the intermodality through grouping of potential users respectively through consolidation of individual consignments in order to research the critical mass to justify intermodal services.

One opportunity to generate a potential for added value services is to break transport chains in logistic centers for consolidation into intermodal units (e.g. containers) and shifting between transport modes (Taniguchi *et al.* 1995).

To strengthen the interaction between the modes, the ports should be connected by a railway or a highway with intermodal terminals in hinterland. Implementation of intermodal terminals and distribution points between the seaports and the main economic areas can support Ukrainian transit function and make logistic centers of more added values for Ukrainian economy.

Logistic centers join transport companies and transport related activities. From these commercial clustering logistic centers realize different service concepts:

- supporting services
- 3<sup>rd</sup> part logistics
- 4<sup>th</sup> part logistics
- city logistic services.

Logistic centers in Ukraine are developed as the 3<sup>rd</sup> party logistic providers. The third party logistic centers are becoming an important part of the current supply chain in Ukraine. These companies offer services that can allow businesses to outsource part of all the supply chain management function. Many 3PL providers offer a wide range of services including: inbound freight, freight consolidation, warehousing, distribution, order fulfillment and outbound freight. This offered business opportunity of using “just in time” techniques, which save warehousing space and overall costs (Beckman *et al.* 1956).

A Logistics Centre is the hub of a specific area where all the activities relating to transport, logistics and goods distribution – both for national and international transit – are carried out, on a commercial basis by various operators. The operators may be either owners or tenants of the buildings or facilities:

- warehouses;
- distribution centers;
- storage areas;
- offices;
- truck services, etc (Fig. 2).

The Logistics Centre concept is based on three important elements:

- territorial planning alongside infrastructure rationalization;
- transport quality;
- intermodality development (Fig. 3).

The main objective of all those working inside a Logistics Centre is to assure a high quality level, generating the following transport system effects:

- optimization of the logistics chain;
- optimization of lorry utilization;
- optimization of warehouse utilization;
- optimization of manpower organization;
- a decrease in the total transport costs;
- a decrease in the total industrial costs;
- a decrease in personnel costs;
- an increase in the transport operators total turnover

(Fig. 4).



Fig. 2. Structure of the logistic center



Fig. 3. Basic elements of the logistic centre



Fig. 4. Large-sized warehouses (for logistic activities)

Logistic centers play a remarkable role in terms of economy because of higher efficiency and optimization in the transport chain realization, hence distribution and transport costs being reduced.

## Conclusions

Logistics centers combine all the activities related to transport and logistics. Consolidation of different companies serving and using transport services through synergy effect increase the economic and productive performance

of companies and at the same time increase their economy of scale. An important feature is the logistic centers tendency to co-operate nationally and internationally hereby creating efficient transport chains and network solutions for an optimal cargo flow and distribution.

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