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THE NATURE AND CHARACTERISTICS OF TRANSPORT LOGISTICS IN THE ECONOMY OF THE COUNTRY

Abstract

Management of the transport industry is one of the main components of its organizational structure, which largely determines the coherence and efficiency of all links to meet the needs of society in transportation, which determines the relevance of the author's research. The modern trend of development and improvement of the transport system has become the spread of logistics, logistic management, ie. the whole complex of services for fast and quality delivery of goods, which is reflected in the author's study. The authors of this article consider the trends in the development of the transport system. It is determined that transport as an industry is of exceptional importance for the use, development and transportation of material resources available in any country. The attention is focused on the laws and features of the transport system. In this article the traditional approaches to the management of material flows in the movement of goods, the level of development of the transport network, which indicates the development of the economy as a whole are studied. The article explains that the most important conditions for the development and effective functioning of the transport system are its balance and self-sufficiency. The modern model of the logistic organization of commodity circulation is considered. According to the results of the study, appropriate conclusions were drawn.

Key words: transport system, logistics, infrastructure, services, management, goods movement, transportation, product flows.

Transport is a part of economic activity that aims to increase the satisfaction of the needs of society by changing the geographical location of goods and people. The specifics of transport as a sector of the economy is that it does not produce new material products, but only participates in its creation, providing the production of raw materials, materials, equipment and delivers the finished product to the consumer.

Specialization of individual regions and their integrated development is impossible without the participation of transport. At the same time, the decision to establish new production facilities, usually accompanied by an increase in the need for transportation, is directly dependent on the level of development of the transport infrastructure of the region and its ability to meet this need. Consequently, the transport factor has a decisive influence on the rational distribution of productive forces.

Transport creates conditions for the formation and functioning of the local and national market. Therefore, in the transition to market relations, the importance of rationalization of the transport system increases significantly on the one hand, the efficiency of enterprises depends on the transport factor, which in the market conditions is directly related to their viability, on the other hand, the market involves the exchange of goods and services. Thus, the market itself is not possible without transport. As a result, transport is an important part of the market infrastructure and the economic base of the state as a whole [1].

Acting as a component of the overall system of market infrastructure, transport is a set of institutions that provide a normal, continuous solution to the problems of trade between market participants. Its function is to connect the production resources in the process of reproduction and ensure their entry into the market.

The role of transport in economic growth is undeniable. Increasing production requires more raw materials, a larger market and more transport work. Therefore, transport is a sensitive barometer of the national world economy. At the same time, being a major consumer of energy vehicles, construction

and other materials, it largely determines the capacity utilization, significantly affecting the formation of GDP.

The share of transport in the GDP of most developed countries ranges from 4–9%, and in employment – 3–8%.

The important role of state participation in the development of the transport system should be emphasized. Transport is a material and energy-intensive sector of the economy with a long investment cycle, a high level of physical and moral deterioration. Transport accounts for about 20% of the world's fixed assets.

Transport is also important in solving social and economic problems. The provision of the territory with a well-developed transport system creates an integration effect, being one of the factors of attracting the population and production. Although transport does not produce tangible goods, but only participates in their delivery to points of consumption, transport costs are included in the price of the goods. For some industries, transport costs are very high, such as in the timber and oil industries, where they can exceed 50 per cent. The transport factor is of particular importance in the Republic of Kazakhstan with its vast territory and uneven allocation of resources, population and fixed assets. Thus, transport is an important component in the economy of any state.

The transport system is formed by different types of transport. It should be noted here that the division of transport into modes is fundamentally different from the division of industry and agriculture into sectors. Different types of transport create, in General, the same products – carry out the movement of goods and passengers. Based on the qualitative difference of products, it would be possible to distinguish only two sectors of transport production – passenger and freight transport. However, all modes of transport (except pipeline transport) are capable of both freight and passenger transport [2].

Modes of transport differ from each other not by the quality of their products, the type of raw materials used or the stage of production, but by the use of natural or artificial means of communication. These differences are mainly geographical in nature. It is no coincidence that modes of transport are naturally grouped by Geosphere (land, water and air).

There are 6 main modern modes of transport: rail, road, sea, inland water (river, lake), air and pipeline.

Different types of transportation use a variety of natural or artificially built links. The latter include Railways, roads, pipelines, Maritime and inland navigation channels, as well as a significant portion of improved river routes.

Along with the division of transport into types, the division of transport enterprises and their work by the nature of the links served, i.e. by types of communication, is also important. So, distinguish between international and domestic message, fissile, in turn, at inter, intra and local, intercity and intracity communications.

No one form of transportation does not limit the service exclusively to the international or internal, local or long distance messages. We can only talk about the predominant use of a particular mode of transport for a particular type of communication. Maritime transport is used mainly in international transport, but also to a large extent in domestic transport – in cabotage. For all other modes of transport, the main ones are internal communications, with transport being widely used for intra-urban and peri-urban transport [3].

To date, the implementation of transport activities can not be considered without the participation of logistics.

Logistics is the science of planning, organization, control and management of transportation, warehousing and other material and intangible operations performed in the process of bringing raw materials to the production plant, in-plant processing of raw materials, semi-finished products, bringing the finished product to the consumer in accordance with the requirements of the latter, as well as the transfer, storage and processing of relevant information.

In logic, the term “concept” refers to a thought in which objects of a certain class are generalized and distinguished by certain common and collectively specific features.

In the course of the logistics process, the material flow is brought to the enterprise, then its rational promotion through the chain of warehouse and production sites is organized, after which the finished products are brought to the consumer in accordance with the order of the latter.

By appointment, there are two main groups of transport:

- ♦ public transport—a branch of the national economy that meets the needs of all sectors of the economy and the population in the transport of goods and passengers. Public transport serves the sphere of circulation and the population. It is often called the main line (the main line – the main line in any system, in this case, in the system of communication routes). The concept of public transport covers rail, water (sea and river), road, air and pipeline transport.

- ♦ non-public transport—intra-industrial transport, as well as vehicles of all types belonging to non-transport organizations [4].

The organization of the movement of goods by non-public transport is the subject of the study of industrial logistics. The problem of choice of commodity distribution channels is solved in the field of distribution logistics.

The subject of transport logistics is a set of tasks related to the organization of movement of goods by General purpose transport.

The tasks of transport logistics:

- ♦ choice of vehicle type;
- ♦ vehicle type selection;
- ♦ joint planirovanie transport process with warehouse and production;
- ♦ joint planning of transport processes in different modes of transport (in the case of multimodal transport);
- ♦ ensuring the technological unity of the transport and storage process;
- ♦ definition of rational delivery routes.

The main place in transport logistics is occupied by the task of drawing up routes that allow to minimize the mileage of vehicles or that minimize the cost of transportation of goods.

The subject of transport logistics is a set of tasks related to the organization of movement of goods by General purpose transport.

The term “physical distribution” is used as synonyms for “logistics”. The American marketing Association defines the latter term as “the processing and transportation of goods from the place of production to the place of consumption.”

These types of activities for the management of different-quality material flows constitute the content of logistics, which is the same terminology dictionary defines as follows: logistics – the science of planning, control and management of transportation, warehousing and other material and intangible operations performed in the process of bringing raw materials and supplies to the production plant, in-plant processing of raw materials, materials and semi-finished products, bringing the finished product to the consumer in accordance with the interests and requirements of the latter, as well as the transfer, storage and processing of relevant information [5].

In practice, the definition of logistics as a set of technical means and management methods that ensure the delivery of the required goods to the destination at a given time in the right quantity and with minimal cost.

The main requirements of consumers to transport services are the following:

- ♦ transport reliability;
- ♦ minimum terms (duration) of delivery;
- ♦ regularity of cargo delivery;
- ♦ guaranteed delivery time, including delivery on time;
- ♦ traffic safety;
- ♦ ensuring the safety of cargo upon delivery;
- ♦ convenience of reception and delivery of goods;
- ♦ availability of additional services,
- ♦ availability of different levels of transport services;
- ♦ adaptability to customer requirements (flexibility of service);
- ♦ well-functioning information and documentation system;
- ♦ cargo escort to the final destination;
- ♦ organization of cargo delivery “from door to door»;
- ♦ acceptable cost of transportation;
- ♦ possibility of customs clearance (payment of customs duties, etc.);
- ♦ the optimal locations of the points of departure and delivery;

- ♦ the possibility of obtaining reliable information on tariffs, conditions of transportation and location of cargo;
- ♦ availability of the necessary transport containers;
- ♦ availability of the necessary handling equipment at the transshipment points;
- ♦ elimination of intermediate transshipment operations.

In the world of development and gradual implementation of logistics in business practice began in the mid 70-ies of XX century In America, Europe, Japan logistics in all of his “guises” and multifaceted manifestations has long and deservedly gained credibility and recognition. The result is that, unlike the traditional process of material flow management, since ancient times carried out by people, when using the logistics approach, the category of “through material flow” is allocated, which becomes the object of management with controlled quality indicators.

Figure 1 shows the traditional approach to managing material flows in the movement of goods. It is a chain consisting of a manufacturing plant, a wholesale warehouse, shops and transport links connecting them. By joint actions, these participants promote goods from production to the final consumer.

The known transformations of the early 90-ies of XX century in the post-Soviet economic space resulted in disintegration processes in the sphere of production and commodity circulation.

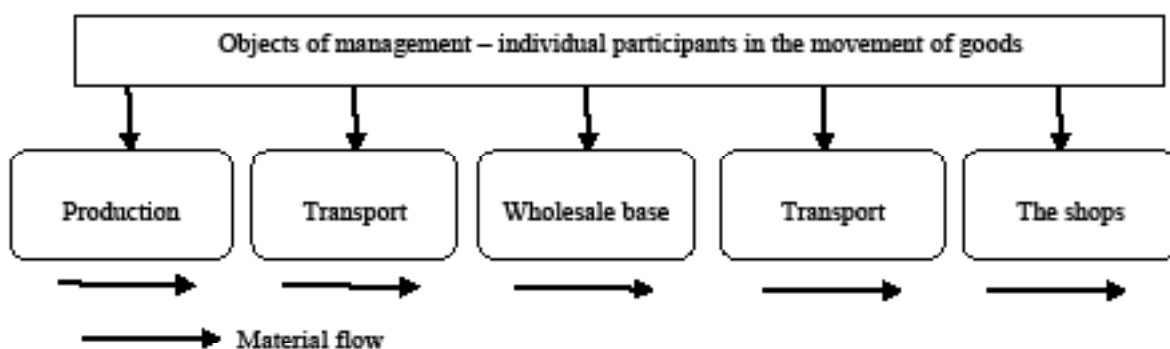


Figure 1 – Traditional management of material flows in goods turnover

As a result, the current organization of domestic commodity circulation is characterized by poor coordination of actions of the participants. The state is not acting as a conductor on this stage today. The distribution of reserves along the chain as a whole is random and irrational. In wholesale warehouses, transport and stores, historically developed technological processes of information and cargo processing are used, which are not coordinated with each other. Warehouse facilities, which operate both at various retail enterprises and on the railway, do not meet modern requirements for processing goods and cargo, and conditions are not always created for unhindered access of transport, rapid unloading and acceptance of goods. Processes in production, trade and transport are not linked by a single planning system [6].

Today, the peculiarity of the logistics business is that the freight forwarding system becomes the basis of the commodity distribution system and they operate in a single technological mode.

The model of logistics organization of goods movement is shown in figure 2.

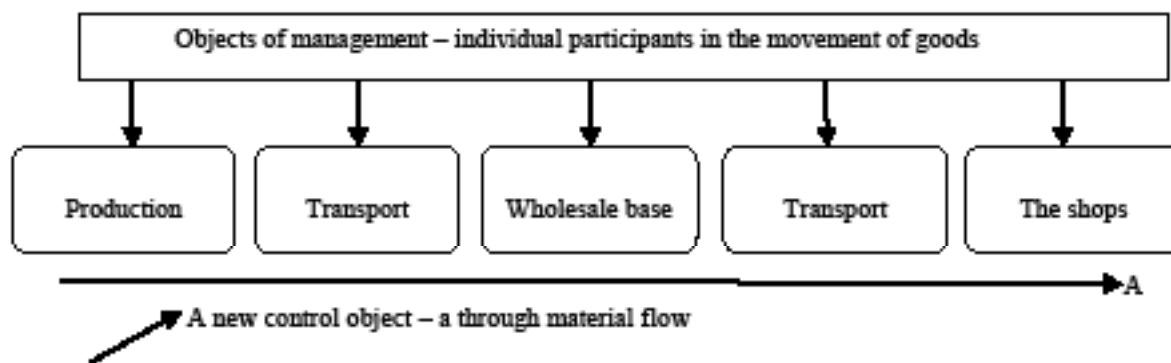


Figure 2 – Model of logistic organization of commodity circulation

The main prerequisite for the possibility of using the logistics method of organization of goods movement is the organizational and economic unity of the participants of goods movement.

Production, wholesale and retail trade, transport are beginning to coordinate and jointly plan their actions.

Features of railway transport are:

- ◆ high carrying capacity of Railways, allowing to master mass cargo and passenger traffic;
- ◆ regularity of movement regardless of weather and climatic conditions;
- ◆ competitive transportation cost;
- ◆ sufficiently high speed of transportation of goods and passengers;
- ◆ the possibility of laying Railways to almost any land region of the country.

Thus, the purpose of logistics is to provide and receive products and services where they are needed, and when they are in demand.

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Аңдатпа

Көлік саласын басқару – оның ұйымдық құрылымының негізгі құрамдас бөліктерінің бірі болып табылады, бұл негізінен авторлық зерттеудің өзектілігін анықтайтын тасымалдаудағы қоғам қажеттіліктерін қамтамасыз етудегі барлық байланыс жұмыстарының үйлесімділігі мен тиімділігін айқындайды. Көліктік жүйенің дамуы мен жетілдірілуінің қазіргі заманғы үрдісі – логистиканың, логистикалық басқарудың таралуы болып отыр, яғни, тауарлардың жылдам әрі сапалы түрде жеткізілуіне арналған қызметтердің барлық жиынтығы авторлық зерттеудің көрінісі болып табылады. Осы мақаланың авторлары көлік жүйесін дамыту үрдістерін қарастырды. Өндірістің саласы ретінде көлік жүйесі кез-келген елде бар материалдық ресурстарды тасымалдау, пайдалану және дамыту үшін айрықша маңызға ие екені анықталған. Көлік жүйесінің даму заңдылықтары мен ерекшеліктеріне аса назар аударылған. Бұл мақалада тауар қозғалысының материалдық ағындарын басқарудың дәстүрлі бағыттары зерттелген. Экономиканың тұтастай дамуын куәландыратын көлік желісін дамыту дәрежесіне негізделген. Мақалада көлік жүйесінің тиімді жұмыс істеуі мен оның дамуы үшін ең маңызды шарттары, оның өзін-өзі қамтамасыз ете алуы мен теңгерімділігі екені көрсетілген. Тауар айналымының логистикалық ұйымының заманауи моделі қарастырылған. Зерттеу нәтижесі бойынша тиісті қорытындылар жасалынды.

Тірек сөздер: көліктік жүйе, логистика, инфрақұрылым, қызметтер, басқару, тауар қозғалысы, тасымалдау, материалдық ағындар.

Аннотация

Управление транспортной отраслью – одна из главных составляющих ее организационной структуры, в значительной степени определяющая слаженность и эффективность работы всех звеньев по обеспечению потребностей общества в перевозках, что определяет актуальность авторского исследования. Современной тенденцией развития и совершенствования транспортной системы стало распространение логистики, логистического управления, т.е. всего комплекса услуг по быстрой и качественной доставке товаров, что нашло отражение в авторском исследовании. Авторами статьи рассмотрены тенденции развития транспортной системы. Определено, что транспорт как отрасль промышленности имеет исключительное значение для использования, разработки и перевозки материальных ресурсов, имеющихся в любой стране. Акцентировано внимание на закономерностях и особенностях развития транспортной системы, изучены традиционные подходы к управлению материальными потоками в товародвижении. Обоснована степень развития транспортной сети, что свидетельствует о развитии экономики в целом. В статье отмечено, что наиболее важными условиями развития и эффективного функционирования транспортной системы являются ее сбалансированность и самодостаточность. Рассмотрена современная модель логистической организации товародвижения. По результатам исследования сделаны соответствующие выводы.

Ключевые слова: транспортная система, логистика, инфраструктура, услуги, управление, товародвижение, перевозки, материальные потоки.