# Modern logistics and the East-West transport corridor

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**Abstract.** The article talks about the economic role of logistics centers, integrated intermodal, multimodal and combined transport systems in the development of modern logistics and the East-West Transport Corridor, ways to accelerate the implementation of future prospective projects for Azerbaijan. In the field of logistics, transport corridors are of great economic importance, the interests of the countries of the world, including the transit opportunities of the Republic of Azerbaijan, and the determination of the economic profitability of the provision of transport services were investigated.

**Keywords:** Transport; logistics centers; logistics management; intermodal; multimodal; transport systems; modern logistics; transport corridors; transport projects

#### INTRODUCTION

Logistics is the process of managing the movement of products, goods, services from any starting point to the point of consumption to meet the needs of the customer. The concept of logistics also includes information about transportation, service, storage, assembly of materials and safety of the movement line. Logistics also deals with the destruction of goods when they fail.

Logistics can be defined as a means of providing resources such as products, services and people where and when they are needed. It is very difficult for any marketing or production organization to succeed without logistical support. Logistics; including the integration of shipping, inventory, storage, material handling and packaging data. The responsibility of logistics management is the geographic location of raw materials, process operation, and completion of work by meeting needs at the lowest possible cost.

The etymology of the word logistics is ambiguous. Thus, in the ancient Greek language, logos-understanding, log-thinking, logismos-idea calculation plan, logos-discuss, logistics-the culture of practical implementation of calculations. In ancient times, logistics meant the transportation and movement of food, supplies, and for that time it was understood as a set of mathematical calculation algorithms. In ancient Rome, logisticians were involved in the organization of food and sleeping places for legionaries. In ancient Greece, the offices of civil servants who handled the financial affairs of Athens were called logistics. Archimedes mentioned in his works that only 10 people were logisticians during his lifetime. Napoleon Bonaparte used logistical approaches to provide ammunition, food, and accommodation for his army during the movement. Logistics methods were widely used in issues such as sending, planning, management, and provision of military ammunition, transport, and spare parts as a result of the supply of military units conducting war and preparing for semi-war at the beginning of the 20th century.

Logistics as a scientific field began to be formed in the US in the early 1950s for the first time in the civilian field. From the point of view of the evolution of logistics, it can be divided into several historical stages of development, originating in the 20th century.

• The first stage covers the years 1920-1950. So, in this period, logistics was outside of business activity and was considered insignificant for business activity;

- The second stage covers the period from the mid-1950s to the 1970s. Experts refer to this period as the period of the emergence of logistics;
- The third stages cover the period until the mid-1980s. Donald Bauersons, one of the influential specialists in logistics at the University of Michigan, USA, called this period the period of logistics renaissance;
- The fourth stage is called the perspective development stage of logistics. This stage involves the complete establishment of logistics systems with a comprehensive approach to each of the production, equipment sales and consumption processes.

Conceptually, modern theories of logistics and logistics management are based on the following methodologies:

- Systematic analysis;
- The fourth stage;
- Cybernetic approach;
- Operations research;
- Economic-mathematical modeling.

#### **CHAPTER 1**

Program-targeted planning, functional system analysis, forecasting, modeling, etc. at different economic levels to solve specific problems arising during the analysis and synthesis of logistics systems. such management methods are used in a detailed form. A large number of logistics societies, organizations and associations have been established in western countries that can coordinate the practical activities of scientists and specialists using the results of methodology and theoretical research in logistics management practice. In the United States, the "American Society" dealing with logistics problems, the "American Council on Management Problems", in Britain "Logistics Institute and Distribution Management", in Spain "Logistics Center", in France "Organizations such as "Production logistics center" have been established.

The general tasks of logistics mean what tasks should be performed, in what sequence, when and where to achieve the goals facing logistics. Any economic entity is to determine its general and special logistical tasks in the field of material flow management, which include the following:

The logistical conceptual idea is the company's adaptation to changes in the market with the least possible costs under existing conditions, which consists in increasing market share and achieving economic advantages over competitors.

The general purpose of logistics is to provide material, information, finance, personnel, etc., that ensure high-quality product shipments. is to create an efficient, integrative system of functional management of flows.

The special task of logistics:

- Ensuring compatibility between material, information, financial, personnel and other flows;
- Dispatching of material flows and providing it with continuous information;
- Determining the physical distribution, strategy and technology of the product,
- Standardization of screening and packaging products;
- Creating a rational ratio between "production storage transport sale";
- Optimization of production resources management process;
- Achieving the maximum reduction of cargo storage and transportation time.

Logistics is divided into the following subsections:

- Military logistics;
- Business logistics;
- Supply logistics;
- Distribution logistics;
- Sales logistics;
- Transport logistics;
- Backup logistics;

- Warehouse logistics;
- Information logistics;
- Complex logistics;
- Ecological logistics;
- Savings logistics;
- City logistics.

In the economic diversification policy of President Ilham Aliyev, the realization of the transit potential of our country, which has a favorable geographical position, is of great importance. At the same time, the development of international and regional transport corridors has a positive effect on increasing the efficiency of our economy. At the same time, joint projects in the fields of transport, infrastructure and logistics expand the economic opportunities of our state and increase its importance. Azerbaijan, which is an active supporter of the creation of a wide economic lane on the historical Silk Road, also provides a reliable guarantee for the efficient organization of transit transportation of goods to various destinations by passing through the territory of our country compared to other corridors. This allows for safe and timely delivery in a short period of time under more favorable conditions, and the volume of transit transportation can increase many times.

Currently, Azerbaijan's transit capabilities are highly valued by a number of countries of the world. For example, it is said that using the East-West route and the transport-transit potential of Azerbaijan, which is part of it, is more profitable in terms of time and money for cargo transportation between China and Europe. Therefore, the establishment of the Trans-Caspian International Transport Route is considered one of the important transit successes of our country. This route was created in February 2014 by the joint initiative of the relevant agencies of Azerbaijan, Kazakhstan and Georgia involved in cargo transportation. Later, the relevant institutions of Ukraine, Romania and Poland also joined the Trans-Caspian International Transport Route. At present, this route extends from the China-Kazakhstan border to European countries, passing through Kazakhstan, the Caspian Sea, Azerbaijan and Georgia.

### **CHAPTER 2**

Located at the intersection of the North-South and East-West transport corridors, Azerbaijan is currently recognized as an important transport and logistics center of the region. Successful cooperation with European Union countries in this field is carried out. The East-West, North-South and South-West international transport corridors passing through the territory of our country are very convenient for cargo transportation in terms of distance and duration.

Baku-Tbilisi-Kars railway, Baku International Sea Trade Port, Azerbaijan's largest merchant fleet in the Caspian Sea, modern shipyard, highways meeting modern standards further expand the possibilities of these transport corridors. Against the background of these opportunities, the volume of transit cargo is increasing significantly. Statistical indicators also confirm this idea. Thus, in 2018, 9.3 million tons of transit cargo was transported through the territory of Azerbaijan and a 49 percent increase in the volume of transit non-oil products was recorded.

By the way, let's note that the Baku-Tbilisi-Kars railway line, launched in 2017, is currently an important logistical link between Asia and Europe. It also creates a format for international cooperation, connects peoples and countries, and serves peace and stability. Dmitry Savelyev, head of the Russia-Azerbaijani Interparliamentary Friendship Group, said in an interview with the press that the North-South international transport corridor profitable for the parties. However, transportation from Russia to the port of Mersin on the Mediterranean Sea will also open good prospects for Russia. Because the diversification of routes in cargo transportation to Europe is of great interest for the economy of this country. 80 percent of Russia's cargo transportation to Turkey is carried out by sea. The rest is realized through road transport. But until now there has been no freight transportation by rail. However, thanks to Azerbaijan, cargo will be transported via this route in September, and it will be possible to increase the volume of cargo transportation to 500,000 tons in the next two years. Azerbaijan's transport infrastructure creates great transit opportunities for all interested countries.

We would like to mention one point here. Located in the center of Eurasia, at the junction of East and West, Azerbaijan is one of the important countries of the historical Silk Road. In modern times, Azerbaijan, relying on its historical traditions, actively participates in the creation of international trade corridors. It should be recalled that the great leader Heydar Aliyev correctly evaluated the geographical and economic opportunities of Azerbaijan and did practical work regarding the active participation of our country in international trade transport. In this direction, on the initiative of the genius leader, in September 1998, the international conference "TRACECA - restoration of the historical Silk Road" was held in Baku with the participation of 13 international organizations and 32 state delegations. It was at this important event that the legal foundations for the more efficient organization of international transit transportation for the development of the Europe-Caucasus-Asia corridor were laid.

Under the leadership of President Ilham Aliyev, the political successor of the national leader, huge projects are currently being implemented in parallel with the comprehensive development of Azerbaijan, in the direction of modernizing the transport and transit potential of our country. 6 international airports in Azerbaijan, Baku cargo terminal, Alat Commercial Port, the Caspian Sea cargo fleet with the most modern cargo ships, the Baku-Tbilisi-Kars railway line, which was commissioned in 2017 and provides the shortest railway connection between Europe and China are the successes achieved by our country in the field of transport and transit in a short period of time.

The management of Azerbaijan is doing serious work to achieve further improvement of its position in freight transportation in the region and in the world by effectively using the geographical position of our country and the above-mentioned transport-transit infrastructure. Of course, relations with China, which has the world's second economy, are of special importance in this regard.

China, which is the world's largest exporter and the second largest importer, creates new cooperation opportunities for Azerbaijan as well. Azerbaijan was one of the first countries to correctly assess the opportunities created by this new initiative of China for cooperation and joint development, and to support the strategy.

During the visit of President Ilham Aliyev to China in December 2015, a Memorandum of Understanding was signed on the joint promotion of the establishment of the "Silk Road Economic" pipeline, which is part of the "One Belt, One Road" strategy. Azerbaijani officials have stated at various meetings and international events that our country is not satisfied with providing political support to this initiative, but is also ready to make practical contributions to its implementation with its economic potential and transport-transit capabilities.

President Ilham Aliyev said: "The creation of modern transport infrastructure is among the priorities of Azerbaijan. Taking advantage of our geographical position, we invested in building bridges between Asia and Europe. Despite being a landlocked country, we have turned Azerbaijan into one of the international transportation centers. We have created a diversified railway network that connects us with our neighbors. Six international airports are our next contribution to the creation of modern transport infrastructure. Heydar Aliyev International Airport was awarded five stars in the category of the best regional airport by "Skytrax" International Transport Rating Agency. The Baku-Tbilisi-Kars railway line, launched in 2017, is not only a regional project connecting three countries. It also connects continents and is an important link between Asia and Europe. This railway is an important part of the East-West transport corridor.

### **CHAPTER 3**

Let us also emphasize that Azerbaijan is expanding cooperation between the countries participating in the East-West and North-South corridors projects, along with becoming an important transport center by creating a modern transport and logistics infrastructure. International transport projects serve to deepen relations between countries and peoples. "One Belt, One Road" initiative is also a new possibility in the field of transport in addition to opening up, it promotes trade, tourism, people-to-people contacts and serves to establish stability, security and peace in the Eurasian space.

# TABLES, FİGURES



Figure 1. "North-South" and "East-West" transport corridors

Measures are being continued in the direction of expanding the transport and transit facilities of our country. During different years, millions of tons of transit cargo are transported through the territory of the country. There is an increase in the volume of cargo transported through the North-South transport corridor, thousands of tons of cargo are transported. A significant increase in the volume of cargo transported along the North-West and East-West transport corridors is also seen. There is also a significant increase in the volume of non-oil products transported through the North-West transport corridor. These show that transit routes continue to expand, trade turnover increases, which ultimately leads to the prosperity of Azerbaijan as a whole, as well as the region.

It is involved in both the North-South and East-West transport corridor projects. Azerbaijan attaches great importance to the construction and reconstruction of internationally important railways. In this field, we have had a special role in the realization of a number of projects that are important for the region and the world.

The construction of the Baku-Tbilisi-Kars (BTK) railway, considered one of the 100 largest projects in the world, was carried out under the leadership of President Ilham Aliyev. BTK, which has been in use for years, has opened wide opportunities for intercontinental transportation. The favorable conditions created by this railway, which is the shortest route between China and European countries, has attracted the attention of many countries, especially Eastern countries. This railway line is the shortest route between Asia and Europe. BTK allows to reduce the time spent on cargo transportation by more than 2 times. The Baku-Tbilisi-Kars railway facilitates the access of Central Asian countries - Turkmenistan, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Afghanistan - to European and world markets.

# TABLES, FİGURES

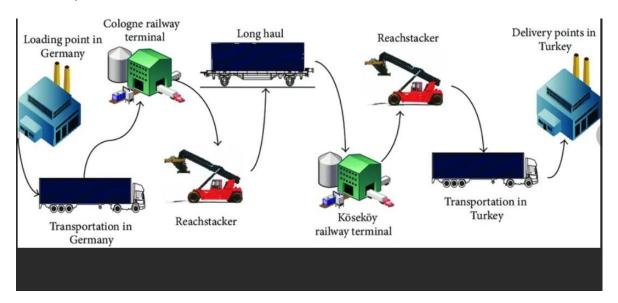


Figure 2. Freight transportation with the transport system

Due to the large financial movement created by multimodal transportation, many promoters have become affiliates of this type, which has expanded their responsibilities as transporters. This has also been seen in ocean carriers that offer delivery service to your door today. This means that thanks to multimodal transport, sea carriers can offer a transfer service that covers the capabilities of the buyer, instead of offering a traditional service that can only move goods from one port to another.

#### CONCLUSION

As a result, multimodal transport can be distinguished from intermodal transport, because the latter uses only one load dimension, despite the fact that it uses several modes of transport. Multimodal transport also differs from combined transport, which consists of the use of different types of transport within the same transport branch.

In general, multimodal transport is carried out by a professional operator who must conclude a multimodal transport contract, which assumes full responsibility for the goods and ensures that the transfer is carried out.

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