

in previous times, losses. Modern foreign trade cannot do without insurance, and in most cases an insurance contract is an integral part of a trade transaction.

MODES OF TRANSPORTATION IN LOGISTICS

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Logistics refers to the transportation of merchandise – raw materials or finished products – from the point of production to the point of final consumption. Different modes of transportation – road, rail, water and air – can be used for the effective management of merchandise. Every mode of transportation requires a different set of infrastructure, type of vehicles, technological solutions and regulations. All modes of transportation have different costs, service and transit times. There are the following types of cargo (freight): a) general cargo (goods packed in boxes); b) bulk cargo (large quantities of cargo, e.g. sand); c) bulky cargo (large individual items, e.g. cars). A consigner (someone who ships goods) chooses how to send the consignment (these goods) to the consignee (someone who receives these goods) by water, road, railway, air.

1) Road

Road transportation is one of the most basic and historical means of transportation. Road transport is the principal means of transport in the European Union for both passengers and goods. Today, the European Union has almost one vehicle for every two residents, and road freight traffic represents more than two thirds of the total tonnage. There are many different types of vehicles, although trucks are typically used for carrying or delivering freight. Road transportation offers a relatively lower cost compared to other logistic forms and has a widely recognizable and flexible route. However, transportation by road takes a relatively longer period of time than other means of transportation. Besides, it offers a limited capacity. Road transport is most often used for comparatively inexpensive, non-perishable items or for shorter distances.

2) Rail

Rail transport is a means of conveyance of passengers and goods by way of wheeled vehicles running on rails. It is also commonly referred to as train transport. Rail transport uses freight trains for the delivery of merchandise. Freight trains are usually powered by diesel, electricity and steam. A freight train hauls cargo using freight cars specialized for the type of goods. Freight trains are very efficient, with economy of scale and high energy efficiency. However, their use can be reduced by lack of flexibility, if there is need of trans-shipment at both ends of the trip due to lack of tracks to the points of pick-up and delivery. Container trains have become the dominant type in the US for non-bulk haulage. Containers can easily be trans-shipped to other modes, such as ships and trucks, using cranes. Passenger trains are part of

public transport; they can perform a variety of functions including long distance intercity travel and local urban transit services.

3) Water (maritime transportation)

Sea transport has been the largest carrier of freight throughout recorded history. Main maritime routes include oceans, coasts, seas, lakes, rivers and channels. Water transport uses ships and large commercial vessels that carry billions of tons of cargo every year. Sea, lake or river transport is particularly effective for significantly large quantities of goods that are non-perishable in nature and for cities or states that have water access. Moreover, transport via water is considerably less expensive than other logistics methods, which makes it one of the most widely used choices of transport for merchandise.

4) Air transportation

An airline is a company that provides air transport services for travelling passengers and freight. Airlines vary from those with a single aircraft carrying mail or cargo, to full-service international airlines operating hundreds of aircraft. Airline services can be categorized as being intercontinental, intra-continental, domestic, regional, or international, and may be operated as scheduled services or charters. Air routes are practically unlimited. Merchandise is carried in cargo compartments on passenger airplanes, or by means of aircraft designed to carry freight. Although air transport is more expensive than all other means of transportation, it is definitely most time-efficient. Perishable merchandise like fruits and vegetables are generally sent by air. More recently, air transportation has been accommodating growing quantities of high value freight and is playing a growing role in global (international) logistics.

5) Pipelines

Pipeline transport is the transportation of goods (liquids, gases, chemically stable substances) through a pipe. Pipeline routes are also practically unlimited as they can be laid on land or under water. The longest gas pipeline links Alberta to Sarnia (Canada); it is 2,911 km in length. The longest oil pipeline is the Trans-Siberian, extending over 9,344 km from the Russian arctic oilfields in eastern Siberia to Western Europe. Pipeline construction costs differ according to the diameter, and increase proportionally with the distance and with the viscosity of fluids. Pipeline terminals are very important, since they correspond to refineries and harbours.

6) Intermodal and multimodal transportation

Intermodal transportation concerns a variety of modes used in combination so that the respective advantages of each mode are better exploited. It involves the movements of passengers or freight from one mode of transport to another.

Multimodal transportation (also known as combined transport) is the transportation of goods under a single contract, but performed with at least two different means of transport; the carrier is liable for the entire carriage, even though it is performed by several different modes of transport (by rail, sea and road, for example). The carrier does not have to possess all the means of transport; the carriage is often performed by sub-carriers (actual carriers). The carrier responsible for the entire carriage is referred to as a multimodal transport operator, or MTO.