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FACTORS INFLUENCING THE CHOICE OF TRANSPORT IN SUPPLY CHAIN MANAGEMENT

Successful supply chain management in the face of excessive market volatility and demand has become a top priority at the current stage of global economic development. The processes of balancing supply and demand for goods and services have gone out of control, calling into question the reliability of cross-cutting supply chains and the planning of demand for products. In addition, the financial and economic impact of natural disasters has increased supply chain volatility, which in turn creates the need to choose the type of transportation that best meets the requirements of profitability and freight transportation costs, supply chain flexibility, and customer satisfaction.

The following factors must be taken into account when planning the shipment and selecting the mode of transport in supply chain management:

1. Type of cargo being transported. Yes, perishable goods are subject to carriage by air. At the same time, the participation of air transport is inadmissible for the carriage of flammable and explosive goods. It should be noted that the majority of freight transportation by rail is the transportation of bulk and bulk cargo, while road transport is mainly bulk and tare-piece cargo.

2. Distance and route of freight traffic. The place of departure and the final point of transport in the supply chain are also determinants of the choice of mode of transport. Yes, rail, sea and air are used in international and global supply chains.

3. The factor of time of freight transportation. Obviously, the fastest mode of transport in the supply chain is air transport, at the same time such transportation is quite expensive, and air transport is used only in cases where the delivery of cargo in the shortest possible time is necessary. Therefore, supply chain management requires the development of supply programs for freight, taking into account the plans of freight transportation carried out by transport companies.

4. The cost of freight. Considering freight transport by sea from the point of cost of such transportations, it is possible to assert about the low cost of freight transportations by sea transport, in comparison with other modes of transport which is formed due to the carrying capacity of sea transport. Therefore, the cost of transportation per unit of cargo is as low as possible.

It follows that each mode of transport has its own advantages and disadvantages, which must be taken into account in the process of supply chain management. Thus, rail transport is characterized by high transport capacity and throughput, independence from climatic conditions, seasons and days, relatively low freight rates, and high long-distance freight delivery. At the same time, rail transport is also characterized by a limited number of carriers, high material and energy intensity of freight traffic, low accessibility to end consumers, and a low level of cargo storage.

In turn, maritime transport is used in supply chains because of the possibility of intercontinental freight transportation, low cost of long-distance freight transport, high capacity and capacity, as well as the low capital consumption of freight. In addition, the main advantages of using maritime transport in supply chain management in the territory of Ukraine is the high export potential of maritime transport of individual bulk and tare-piece cargo (ferrous metals, coal, iron ore concentrate and grain), convenient location of the seaport network from the position of seaports freight transport, as well as availability of highly qualified personnel in the field of maritime transport and its maintenance. At the same time, maritime transport is also characterized by low speed of cargo transportation, dependence on geographical and weather conditions, as well as conditions of navigation of sea vessels, necessity of creation of complex port infrastructure, strict requirements for packing of cargoes, as well as low frequency of their departure.

In its turn, road transport is characterized by high accessibility to end users, high maneuverability and flexibility, high speed of freight transportation, the ability to use different routes and delivery schemes, a high level of cargo storage, as well as the ability to send the latter in small batches. In the management of supply chains with the participation of road transport should take into account such disadvantages, which include the low productivity of the latter, the dependence of road transport on road and natural and climatic conditions, relatively high cost of freight and long-distance freight, and operational road transport.

In addition, in the future, it will be possible to operate unmanned road transport in the field of freight. It is assumed that the need to hire drivers for freight will disappear. At the same time, technical problems have not been resolved yet, and there is no legal basis. Most likely, the use of autonomous truck transport is possible only in the long run, because due to the complexity of the negotiation procedures and the high risks, their widespread use is not expected in the near future.