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DIRECTIONS FOR IMPROVING THE MANAGEMENT SYSTEM OF LOGISTICAL TRANSPORT FLOWS AT ENTERPRISES, FIRMS, AND COMPANIES

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All logistical components, including transport, are in close interaction and mutual influence. Therefore, their development must be carried out comprehensively, forming the basis for the creation of innovative transport systems for the collection and distribution of material flows.

To optimize the management of transport flows, the Just-in-Time (JIT) and Kanban logistical concepts are applied.

Preparation for the implementation of these logistical systems includes:

- ensuring stable and high-quality production activities of the enterprise;
- rational replanning of production areas and optimization of workflow organization, including improvements in order processing;
- guaranteeing reliable cargo transportation;
- applying modern information technologies that enable real-time management of logistical operations.

The first, second, and fourth measures are most often implemented by manufacturing enterprises; intermediary companies use them somewhat less frequently. Transportation within these systems is usually carried out by public transport companies fully or partially. This approach ensures uninterrupted functioning of logistical channels within these programs, minimizes the risk of product shortages for consumers, and prevents production line stoppages. Therefore, particular attention is focused on monitoring the movement of material assets.

Transport is a key link in the logistics system and must meet certain requirements, possess the necessary characteristics, and enable the creation of flexible, innovative cargo-collection schemes. Transport flexibility refers to its ability to respond to weekly or even daily changes in transportation planning, ensuring regular and continuous delivery to various destinations. Another important characteristic is the reliability of transport services, which helps avoid production interruptions or shortages of goods for customers.

In modern conditions, where consumer demand constantly changes and production shifts toward small-batch formats, transport systems must ensure the rapid movement of small cargo batches with minimal intervals between shipments. Regional transport companies specializing in cargo collection and distribution best meet these requirements. They deliver goods over short distances within trade zones, mainly in small batches, which significantly reduces costs.

This cost reduction is achieved through the use of their own terminals for cargo consolidation and sorting, unlike industrial enterprises that maintain large distribution centers and incur high inventory-storage costs. Before consolidation and delivery to the customer, goods remain

at transport company terminals for one to two days. Delivery is usually carried out on the next or second day after cargo arrival.

Depending on the structure of the logistics network, the activities of transport organizations, enterprises, firms, and companies can reduce the delivery time of small cargo batches from manufacturer to client by 20–50% or more. In addition, they provide clients with the ability to monitor the transportation process and flexibly respond to the need to change routes and supply channels.

The emergence of regional companies has significantly weakened the competitive position of industrial firms that relied on traditional transport schemes and distribution centers. As a result, traditional carriers were forced to switch to more differentiated services, similar to long-distance road transport companies.

To adapt to the needs of shippers, new regional operators, after determining tariffs and service standards, began offering specialized logistical solutions. This led to the emergence of various forms of logistics system organization, including:

- updated methods of cargo consolidation;
- performing specific operations at adjacent warehouses;
- introducing new types of cargo collection and distribution services;
- integrating the logistics systems of manufacturers and suppliers to reduce inventory levels

in distant segments of the supply chain while simultaneously improving service levels.

The combination of rapid cargo processing at consolidation points and prompt customer service by public transport operators enables the provision of traditional logistical services but with significantly reduced delivery times.

In most cases, responsibility for organizing the supply chain lies with the customer. If a cargo-collection enterprise receives products from several suppliers, the company forms consolidated batches.

The consolidated cargo may be sent directly to the customer or delivered to their warehouse. If necessary, it is transported to a distribution center, where it is divided into smaller batches and delivered to the final recipient within one or two days.

If regional operating conditions or customer needs change, it may be necessary to update or revise the contract. Adjusted traditional services can be provided at any stage of the supply chain. This is because transportation costs are covered by the cargo-collection enterprise and public transport companies.

The main disadvantage of this approach is the high costs associated with using public transport companies, which offer services at relatively high tariffs.

If a warehouse is located near the manufacturer or supplier, warehouse operations follow the classical scheme small cargo batches are consolidated into larger ones. A generalized description of the traditional method of organizing transport services is presented in Table 1.

Thanks to the use of specially equipped vehicles and efficient organization of loading and unloading operations, cargo owners can deliver a container to its final destination in approximately one week. For comparison, transportation exclusively by sea takes 14–17 days. Considering the costs of transferring containers from ship to rail and back, as well as the construction of small specialized berths, the combined transportation method saves time and money, reduces inventory levels, and decreases the volume of container shipments.

Among the disadvantages of mixed rail–water transportation are the dual responsibility for the cargo and the limited applicability of this method when free space in ports is unavailable.

Motor transport companies, in turn, carry out interregional cargo transportation in large batches, making maximum use of the load capacity of their vehicles. Cargo is first consolidated at collection points and then deconsolidated at distribution points for delivery to final recipients in small batches.

Table 1 – Advantages and disadvantages of the traditional approach to providing transport services

Advantages	Disadvantages
<ul style="list-style-type: none"> - the ability to promptly adjust the range of logistical services provided; - the possibility to vary the volume (weight or size) of cargo batches depending on the situation; - the capability to adapt logistical processes to the enterprise's daily supply needs. 	<ul style="list-style-type: none"> - the need to invest significant capital resources in the construction or equipping of a warehouse, which is not always used at full capacity; - limited ability to serve only one or two enterprises, regardless of the warehouse's location; - for a manufacturing firm, coordination of a large number of transport operations related to product delivery using its own fleet becomes more complicated.

The main advantage of this method is the ability to adapt material-supply channels to the specific needs of the customer. Motor transport companies monitor the movement of their vehicles using a “just-in-time” system, do not apply rigid tariffs, and are not limited to traditional contracts, which ensures high flexibility in interaction with clients.

The disadvantages of this method include the relatively small fleet size of enterprises, firms, and companies, which makes them dependent on large customers. In addition, most of them limit their activities to one or two regions, focusing transportation on major highways and rarely operating across the entire country.

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