

**THE ROLE AND DEVELOPMENT PROSPECTS OF LOGISTICS INFRASTRUCTURE  
IN WHOLESALE TRADE**

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**Abstract:** This article scientifically analyzes the importance of logistics infrastructure in wholesale trade, its impact on efficiency, and the directions for its development. The research employs an integrated approach combining theoretical and practical methods, based on both local and international scholarly sources in the fields of logistics, marketing, and supply chain management. Within the framework of empirical research, the activities of wholesale trade enterprises, the processes of providing logistics services, and the operational mechanisms of distribution centers were studied. In addition, the interconnections between key elements of logistics infrastructure – transportation, warehouses, distribution centers, and information systems – were analyzed. The results of the study provide insights into effective mechanisms for developing logistics infrastructure in wholesale trade, identifying existing challenges, and offering practical recommendations for their resolution. The article also focuses on strategic directions for improving wholesale trade efficiency through the development of modern logistics centers, wholesale-distribution hubs, and transport-warehouse systems.

**Keywords:** logistics infrastructure, wholesale-distribution centers, central and intermediate warehouses, wholesale markets, trading houses, exchanges, transport, warehouses, distribution centers, marketing agencies, manufacturing enterprises and retail enterprises, trade logistics, procurement, inventory, order.

**Introduction.** Scholars and specialists who have conducted scientific research in the field of logistics have substantiated in their studies that the object of logistics is the material flow along the entire path of goods movement. In business practice, new methods and technologies for delivering goods are being applied. These new methods and technologies are based on the concept of logistics.

Logistics is a progressive direction of production and economic activity, associated with managing the movement of material flows in production and trade sectors, while seeking new opportunities to improve their efficiency. Its main objective is to integrate all stages of production – such as procurement of raw materials, manufacturing, distribution of finished goods, transportation, and delivery – into a unified, comprehensive technological process.

In the trade sector, logistics services are aimed at the efficient management of resource flows and perform the following key functions: selection of suppliers and consumers, inventory management, organization of transportation and cargo handling, warehouse logistics management, order processing and fulfillment, management of information flows related to goods movement, and establishing economic relations with manufacturing enterprises.

In wholesale trade, logistics includes the following operations: ordering, purchasing, delivery, storage, sorting, data analysis, and resale of goods. The main areas of logistics application in wholesale trade are as follows:

1. Technical, technological, and organizational improvement of goods movement;
2. Optimization of cargo handling systems within warehouses.

In general, logistics is considered in scientific literature from two perspectives: first, as a practical field of activity with specific functions such as storage, transportation, inventory, and raw material management; and second, as a scientific field focused on developing mechanisms to optimize costs along the movement path of material resources.

**Literature Review.** From a logistics perspective, wholesale traders ensure an optimal system of goods flow by utilizing the market mechanism of self-regulation.

S.V.Tokmanev in his scientific research examined that the development of logistics infrastructure leads to improved inventory management in wholesale intermediary activities and the development of services performed within the goods movement system [9]. In his opinion, the creation of an economically efficient logistics infrastructure contributes to reducing prices in commodity markets, increasing wholesale and retail turnover, decreasing material inventories in the supply chain, and improving the level of customer service.

D.J.Bowersox and D.J.Closs identify the main elements of logistics infrastructure as “manufacturing enterprises, warehouses, cargo handling terminals, and wholesale markets, as well as information and transport facilities” [1]. Logistics infrastructure integrates a set of interconnected objects, creating conditions for the efficient functioning of the logistics system and the rational management of flow processes.

In addition, the issues of forming logistics infrastructure have been studied by Ye.A.Golikov [3], V.V.Dybskaya [4], as well as Juan Blyde and Ricardo Sainz [7]. Their studies emphasize that under modern market conditions, logistics infrastructure serves as a tool that connects relationships among various market participants. Logistics infrastructure also has a direct impact on production and trade activities. In particular, it positively influences the development of wholesale trade and the growth of wholesale turnover.

Based on the conducted research, it can be concluded that logistics infrastructure includes technical, institutional, production and trade infrastructures, as well as information support systems. This infrastructure constitutes a necessary foundation for the stable functioning and effective management of the logistics system.

**Research Methodology.** In this study, a comprehensive scientific and methodological approach was employed to determine the role and significance of logistics infrastructure in wholesale trade activities, assess its impact on efficiency, and substantiate directions for its development. The research methodology was based on a combination of theoretical, empirical, and economic-analytical methods.

The theoretical foundation of the study was formed by the scientific works of domestic and foreign scholars in the fields of logistics, marketing, and supply chain management. In particular, scientific views related to logistics infrastructure, wholesale trade activities, and the development of distribution systems were analyzed and generalized.

Within the framework of empirical research, the activities of wholesale trade enterprises, the processes of providing logistics services, and the functioning mechanisms of distribution centers were examined. Methods such as observation, comparison, and grouping were applied. In addition, the interrelationships among the elements of logistics infrastructure in the wholesale trade system – transport, warehousing, distribution centers, and information systems – were analyzed.

During the research process, economic and statistical analysis methods were widely used, and evaluations were carried out based on indicators such as wholesale trade turnover, logistics costs, and inventory turnover rates. Based on a systems approach, the interconnections among the structural elements of logistics infrastructure and their impact on efficiency were identified.

Furthermore, general theoretical conclusions were formulated using methods of scientific abstraction, induction, and deduction. Expert evaluation and comparative analysis methods were applied to determine priority directions for the development of logistics infrastructure.

As a result, this methodological approach made it possible to identify effective mechanisms for developing logistics infrastructure in wholesale trade, systematically analyze existing problems, and develop practical recommendations.

**Analysis and Results.** Wholesale trade activities develop in direct connection with logistics functions. In wholesale trade, logistics is a method of organizing the flow of goods and information in an integrated manner, covering product procurement, preparation for resale, direct sales, and after-sales services.

The objectives of logistics in wholesale trade include the following:

- 1) Ensuring the attractiveness of goods and providing services at the right place, at the right time, and at the right price.
- 2) Responding promptly to changes in market conditions.
- 3) Delivering finished products to points of sale and selecting efficient distribution methods.
- 4) Preparing goods for sale, including packaging, sorting, and providing after-sales services.

The functions of logistics in wholesale trade are as follows:

1. Sales execution and promotion. Wholesale traders employ sales personnel who help producers reach a large number of small customers at relatively low cost. Wholesalers maintain extensive business relationships, and buyers often trust them more than producers.
2. Procurement and assortment formation. Wholesalers select products and create the necessary assortment, saving customers time and financial resources.
3. Breaking bulk (lot sizing). Goods are purchased in large quantities and divided into smaller lots, reducing costs for customers.
4. Inventory creation. By storing goods, wholesalers bridge the time gap between producers and consumers and optimize storage costs.
5. Transportation. Due to their proximity to customers, wholesalers ensure fast and convenient delivery.
6. Financial support. Wholesalers provide credit to customers by allowing deferred payments, while also supporting suppliers through stable orders and timely settlements.
7. Risk bearing. By taking ownership of goods, wholesalers assume part of the risks related to loss, damage, obsolescence, or other issues.
8. Market information provision. Wholesalers provide suppliers and customers with information on competitors' activities, new products, price dynamics, and other market-related data.
9. Management and advisory services. Wholesalers assist retailers in improving their operations by training their staff, helping design store layouts, organizing product displays, and supporting the implementation of accounting and inventory management systems.

Logistics in trade is a set of activities carried out in the physical distribution of goods through the supply chain. It is precisely logistics that ensures the supply of retail networks with goods through wholesale trade. Improving logistics in wholesale trade is achieved simultaneously with the enhancement of technologies in the areas of wholesale procurement, delivery of goods, warehousing, and the management of information and financial flows.

The objective of logistics in wholesale trade is to organize the trade process from the wholesale purchase of goods to their sale to the final consumer, taking into account all processes associated with the movement of goods. Therefore, logistics in wholesale trade is directly related to the organization of supply chain activities. In general, the stages of supply chain development have also been closely linked to trade activities. Scientific sources suggest that the development of supply chains has gone through four stages:

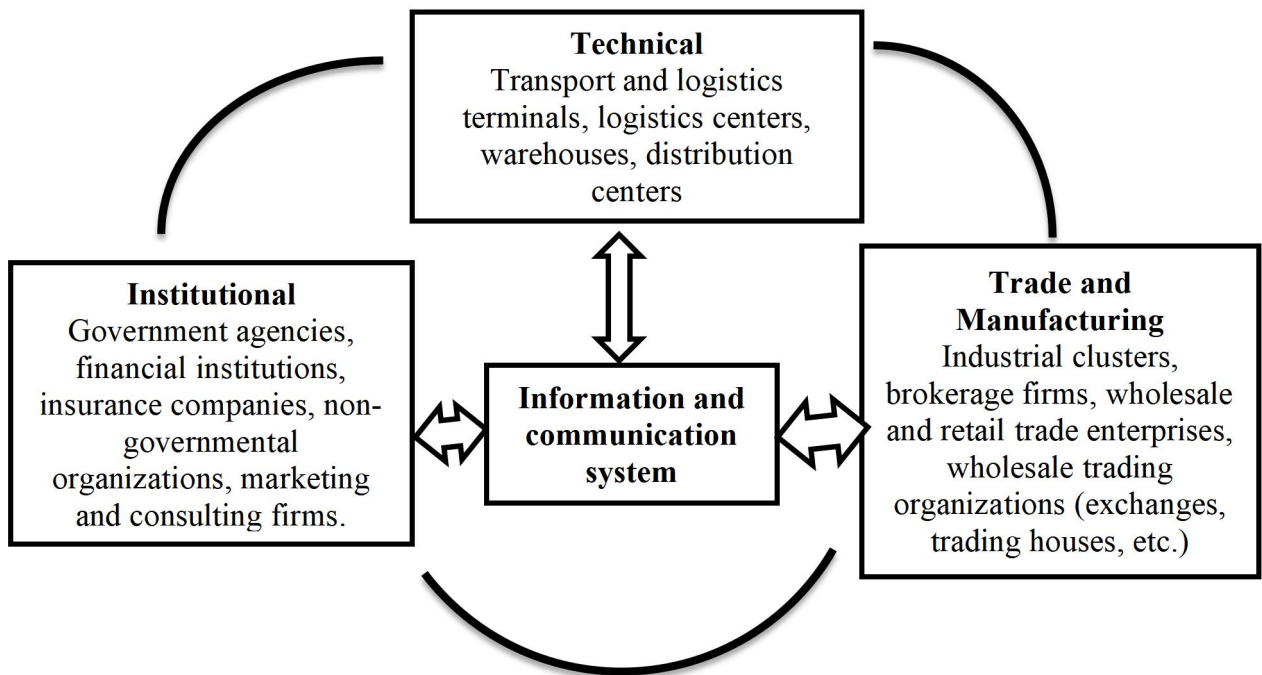
1. Supplier control stage (before the 1980s). This stage is characterized by the development of a network of warehouses across the country. Manufacturers stored their products in warehouses. Direct deliveries from warehouses to retail outlets were rare (once every 7–10

days). Therefore, retail outlets were forced to maintain their own storage facilities where product inventories were kept.

2. Centralization stage (1981–1989). This stage is associated with the establishment of regional distribution centers where products from various suppliers were delivered and prepared for shipment to specific retail outlets. It is characterized by the shift of control in the supply chain from suppliers to retailers, a reduction in auxiliary storage space near stores, and a decrease in delivery time to retail outlets to up to five days.

3. “Just-in-time” delivery stage (1990–1995). This stage is characterized by the creation of multi-temperature warehouse networks, a reduction in losses of perishable goods, and a shortening of delivery times to retail outlets to 1–3 days.

4. Relationship stage among all supply chain participants (present time). At this stage, customer needs take priority, and marketing and advertising become key tools for attracting consumers. Suppliers have come to understand that if the assortment or characteristics of products do not satisfy consumers, improving production efficiency or increasing delivery speed to retail outlets loses its significance.



**Figure 1. Logistics infrastructure and its main elements.**

A distribution center is a key link in the supply chain of all retail networks. When large retail companies work with dozens or even hundreds of suppliers, it would be extremely difficult for them to receive separate deliveries from each supplier. Likewise, for suppliers, even within a single large populated area, organizing deliveries to numerous retail outlets would be very complex. A distribution center effectively solves the problem of interaction between wholesale traders and retail enterprises. Its main functions can be divided into the following groups:

1. Breaking bulk and storage before dispatch to retail outlets. Since goods are purchased from suppliers in wholesale quantities, the distribution center divides these bulk shipments into smaller quantities according to the orders of retail outlets before dispatching them.

2. Regardless of their type of activity, wholesale enterprises perform both trade and logistics functions. They manage material flows in the sphere of goods turnover, facilitate cooperation, and organize the delivery of goods.

3. Technical infrastructure consists of a transport and warehousing system that performs the functions of moving and storing material flows. It includes various types of transport and communications, logistics terminals, bonded and consignment warehouses, logistics operators, distribution centers, as well as customs and transport-warehouse equipment.

4. Institutional infrastructure refers to the set of formal organizations necessary for the functioning of the logistics system within a particular region. Although they do not directly participate in material or information flows, they support logistics activities by providing financial, consulting, customs, marketing, and regulatory-legal services.

Production and trade infrastructure includes manufacturing enterprises and their commercial structures, intermediary organizations, as well as wholesale and retail trade enterprises, all of which are direct participants in the trade process.

A key condition for the effective functioning of logistics infrastructure is the establishment of an information and communication system that ensures efficient interaction among supply chain participants and enables a rapid response to changes in market conditions.

The development of logistics infrastructure has a significant impact on the activities of trade enterprises, especially in wholesale trade. Wholesale trade represents a key distribution link that carries out trade services such as wholesale procurement of goods, preparation of goods for resale, delivery, freight forwarding services, and after-sales support. The operations performed at this stage of distribution are directly related to the logistics infrastructure.

**Conclusion.** At present, efficiency in wholesale trade can only be achieved through the organization of high-quality logistics services. To ensure such a high level of logistics service, a well-developed logistics infrastructure is essential. Wholesale procurement and sales of goods are directly connected with key elements of logistics infrastructure, including transport, warehouses, distribution centers, marketing agencies, manufacturing enterprises, and retail trade organizations.

The most important task of marketing activities for wholesale trade organizations and enterprises is to utilize key elements of modern logistics in order to provide a high level of service under conditions of a free market economy. The effective functioning of these logistics elements is closely related to the logistics infrastructure. Therefore, the main objective of developing logistics infrastructure is to create a mechanism that ensures efficient interaction and consistency among the elements of the logistics system: “supply – production – warehousing – transportation – sales.”

Wholesale trade organizations, associations, wholesale bases, trading houses, and exchanges are important components of logistics infrastructure. The role of wholesale trade in linking production and consumption, as well as in organizing and managing the flow of material resources, is invaluable. In fact, logistics infrastructure is the most significant factor influencing the growth of wholesale trade turnover.

Most importantly, in our country, it is necessary to increase the attractiveness for attracting investments in the creation of logistics infrastructure facilities, to study and assess the demand for such infrastructure, and to develop strategies for their development and promotion.

To create and develop logistics infrastructure related to wholesale trade activities, it is advisable to implement the following measures:

1. Establish trade zones and wholesale distribution centers within newly created modern logistics centers that provide a full range of services.
2. Organize the integration of production zones, logistics zones, and trade zones within logistics centers based on the principles of “marketing – logistics – commodity science”.
3. Develop specialized transport and warehouse complexes, as well as central and intermediate warehouses, taking into account the potential of all regions of the country.

4. Introduce modern technologies into sales structures through the diversification of business processes in manufacturing enterprises.

5. Open trading houses in foreign markets and establish free trade zones in regions of the country with high border and transit potential.

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