UDC 658.78

# WAREHOUSE IN THE LOGISTICS SYSTEM: FEATURES OF EFFECTIVE MANAGEMENT

# СКЛАД В ЛОГИСТИЧЕСКОЙ СИСТЕМЕ: ОСОБЕННОСТИ ЭФФЕКТИВНОГО УПРАВЛЕНИЯ

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ABSTRACT

*WAREHOUSE, LOGISTICS, LOGISTICS SYSTEM, OPERATION, EFFICIENCY, MANAGEMENT, COMPETITIVE ADVANTAGE*

*The importance and place of warehouses in the logistics system are considered. The features of warehouse management in the micro-logistics system are analyzed, the main problems are identified, and the directions for improvement are determined.*

АННОТАЦИЯ

*СКЛАД, ЛОГИСТИКА, ЛОГИСТИЧЕСКАЯ СИСТЕМА, ОПЕРАЦИЯ, ЭФФЕКТИВНОСТЬ, УПРАВЛЕНИЕ, КОНКУРЕНТНОЕ ПРЕИМУЩЕСТВО*

*Рассмотрены значение и место складов в логистической системе. Проанализированы особенности управления складом в микрологистической системе, выявлены основные проблемы и определены направления совершенствования.*

For a long time the management of warehouse facilities was not given much importance, since in the production structure of most economic entities, the warehouse does not belong to the main divisions, and it is considered as a service facility. The only exception was the sphere of wholesale trade, where the attention was always paid to the organization of warehousing due to the peculiarities of the trade functioning. With the development of logistics, the understanding came that a warehouse is an integral link in the supply chain of a logistics system, without the effective functioning of which it is impossible to organize commodity movement. This is connected with the fact that warehousing takes place on different stages

of commodity movement, starting from the warehouse of raw materials of the manufacturer and ending the warehouses of retail trade organizations (Fig.1).

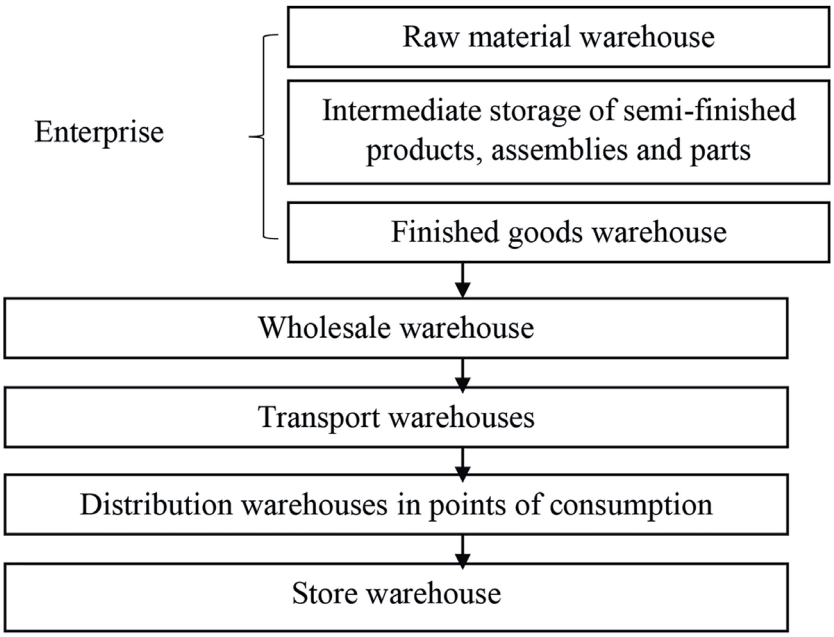


**Figure 1 – Warehouses in the logistics system**

Since a warehouse in logistics is viewed as the main logistic activity, it is important to introduce effective warehouse management methods, which allows it to be considered as a source of the company's competitive advantages. The warehouse becomes a significant competitive advantage of the organization on the following conditions:

- a high level of synchronization of warehouse operations with the work of other divisions of the enterprise;
- flexibility, accuracy and timeliness of order fulfillment;
- optimal logistics costs [1].

Improving the efficiency of warehouse management requires the allocation of strategic, tactical, and operational management levels.

Strategic warehouse management supposes:

- substantiation of the capacity of the warehouse system and the possibilities of changing it in accordance with the strategic objectives of the enterprise: entering new markets, significantly expanding the scope of activities, organizing interaction with strategically important partners.
- ensuring the commodity specialization of the warehouse and its changes, taking into account the expansion (renewal) of the range, which is associated with

the peculiarities of the interaction of the enterprise with suppliers and buyers, in which a significant change in the warehouse technological process is possible.

- improvement of technical equipment and increasing the level of information service of warehouse processes; the solution of these problems is associated with additional costs, and, therefore, with the need to agree on the sources of financial resources and areas of investment.

The tactical level of decision-making involves the coordination of the parameters of procurement and shipment, methods of transportation, as well as the specifics of the implementation of planned activities in the short term. The solution of these issues is often associated with the elimination of various kinds of conflicts of the logistics system: inter-functional, inter-operational, interspecific, etc. For example, the delivery of goods in large batches allows to reduce delivery costs but significantly increases the cost of storing warehouse stocks; transportation using air transport requires increased costs but allows to fulfill urgent orders; expanding the range of services attracts customers, but can significantly increase costs, etc. The effectiveness of management at this level is ensured by the quality of agreements with partners and the accuracy of analytical assessments.

At the operational level, coordination of actions requires solving current problems when accepting or shipping goods, providing conditions for fulfilling urgent orders, organizing the release of inventory items into production. It is important to specify the composition and sequence of actions of certain categories of personnel. In other words, we are talking about the formalization of business processes, that is, the development of a set of standard procedures for specific employees. It allows, on the one hand, to more clearly represent individual operations and to perform them better, and, on the other hand, to optimize the composition of operations and accelerate the degree of their development.

Optimization of operations can be carried out on the basis of their combination, elimination and improvement [1].

Combination takes place, for example, when there are combining operations of acceptance and control of goods arriving in the warehouse; selection of assortment according to customer orders in the storage area without moving them to the picking area; picking several orders at the same time; exclusion of empty movements in the warehouse, etc.

Elimination of operations is possible due to efficiency of interaction with partners: work with reliable suppliers, which allows to exclude control operations at the acceptance stage; coordination of packing parameters and formation of cargo units on standard commodity carriers, which reduces the number of operations; accounting of the forecast demand indicators for more accurate formation of

warehouse stock and exclusion of additional movements in the storage area, etc.

At the present stage, the improvement of existing operations is associated with the use of more advanced information technologies, progressive types of equipment, as well as the reorganization of planning solutions, optimization of warehouse space, and improvement of labor organization. Improving the efficiency of warehousing is also largely related to the quality of accounting and analytical work. With regard to warehouse accounting, it is well established at enterprises of various types of activity. However, the accounting system used does not reflect the specifics of logistics management. So, the costs in the field of warehousing are reflected in a generalized way and are based on the results of a specific time period (staff salaries, costs of maintaining buildings and equipment, electricity costs, etc.). At the same time, current costs are not kept in the context of specific areas, warehouse operations, types of activities or types of products.

There is practically no analytical work in the warehouse. Among indicators of the warehouse, as a rule, the cargo turnover and the utilization rate of the warehouse area are determined. At the same time, neither in the warehouses of material and technical supply nor in the sales area, other indicators of the warehouse premises use, equipment and personnel efficiency are calculated. Moreover, the amount of material flow and the cost of cargo handling, which are the main indicators of warehousing logistics, are not analyzed.

In such a situation it is impossible to identify the most costly operations, to evaluate the performance of individual sections and performers, to determine the time and costs of storing specific types of goods, to analyze the effectiveness of various types of services and to ultimately reveal the reasons for ineffective work and to develop measures to optimize warehouse activities.

The question of assessing the effectiveness of the work of the personnel is also not worked out. The time-based wage system prevails, and the bonus system is based, as a rule, on the general performance of the organization, without taking into account the specifics of the functioning of the warehouse facility. The practice of many organizations that successfully apply logistics management shows that the most effective tool here is the system of key performance indicators (KPI). Their main characteristics are:

- completeness, that is, the presentation in the KPI system of all significant parameters of the warehouse operation;
- relevance – implies the provision of reports no later than the next day;
- objectivity, that is, an assessment of the real quality of work [1].

Depending on the type of work, it is advisable to refer to such indicators as productivity, accuracy and speed of execution, coefficient of time use, work

efficiency. At the same time, the objectivity and accuracy of the assessment depend on the degree of development of business processes and the quality of the accounting system used.

Thus, the improvement of management in the field of warehousing should be carried out in the following areas:

- specification of management decisions depending on the level of management: strategic, tactical, operational;
- standardization of business processes;
- accounting of costs by type of activity, areas, operations, types of goods or services;
- improving the current accounting and improving the quality of analytical work;
- development of a system of indicators for assessing the quality of personnel work.

Such development of management, together with the using of modern automated information systems for warehouse management, provides concretization of management decisions, streamlining warehouse operations, increasing employee motivation and, as a result, increasing the efficiency of the warehouse and turning it as a source of competitive advantage.

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