

IMPROVEMENT OF THE MANAGEMENT STRATEGY MATERIAL INVENTORIES AT INDUSTRIAL ENTERPRISE

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Analyzed the management system of material inventories in warehouses of an industrial enterprise. Are revealed the main problems that hamper effective management of inventories of material values, on the basis of which the proposed recommendations for improvement of their management strategy. Is determined the scientific novelty which consists in the use of a joint matrix of ABC- and XYZ-analysis, which links the grouping of material values to their importance in the production process and the selection of their management strategy.

The level of inventories and the costs of their storage should be optimal and ensure the uniform operation of the transport, production and warehouse systems of the enterprise. The material inventory management policy at the enterprise is aimed at solving the problems concerning what to order, when and in what volumes, where to place the inventories. The process of making decision on the management of material inventories at the enterprise involves the sequential solution of such problems as planning the demand for stocks for a certain period (usually per year), determining the total costs for inventory management for a given period, structuring and controlling stocks, regulating them, the size of the order and the time interval between orders, the choice of the optimal inventory management system.

The main method of inventory regulation is their rationing, i.e. the establishment of inventory norms for a certain period (quarter, year). The problem of inventory regulation is associated with a malfunction of the normal operation of the management system due to changes in the volume of consumption, delay or acceleration of delivery, incomplete delivery, delivery of an overstated volume, an error in accounting for the actual amount of the stock, leading to an increase or underestimation of the order size. These disturbing effects lead either to an inventory deficit or to a deficit in warehouse space. In the first case, it is necessary to regulate the level of the guarantee inventory, and in the second – the level of the maximum desired inventory. To calculate these parameters, the specialist must know the size or size of the optimal order [1; 2].

The objective of creating material inventories at the enterprise is to ensure the rhythmic functioning of the production process. The calculation of inventories at the enterprise is carried out by comparing the main indicators for their movement for the previous reporting periods, as well as taking into account the production plan for the coming year. Thus, the calculation of the optimal level of inventories is not carried out.

At the enterprise there is a department of management of warehouse stocks, which monitors the level of material inventories for maintenance of a continuous production process. However, a certain strategy and system of inventory management at the enterprise are not currently formed.

Having studied the theoretical aspects of the strategy of the management of material inventories at the enterprise, it is possible to single out the general features of an additional reserve strategy, in which the guarantee of needs is provided by creating an additional reserve of material values. At the same time, the enterprise does not have a specific methodology for calculating the reserve number of storage units in warehouses.

In its turn, the strategy of material inventories management should be based on the implementation of a specific management system and control over their condition. Control over the state of material inventories and the formation of an order at the enterprise is carried out periodically through the operational management system – after a certain period of time, an operative decision is made to "order" or "not to order". If you order, the question is how many units of material resources. This system works well in conditions where it is possible to foresee with sufficient confidence the size of the demand for material resources. Otherwise, the unexpectedly increased demand in the period between orders can lead the logistics system of the enterprise into a scarce state [3].

The development of measures to optimize the strategy of material inventories management in an enterprise must begin with a procedure for forecasting the demand for purchased material resources. Then, based on the obtained forecast value of demand, they can be differentiated into groups using the ABC-analysis and XYZ-analysis methods. To manage the material inventories of the obtained resource groups, it is necessary to choose an effective system for regulating (controlling) the level of inventories of the latter in the warehouses of the enterprise, to calculate and perform an analysis of its main parameters.

Finally, depending on the prevailing conditions on a particular market segment, one should choose one of the above strategies of material inventories management at an enterprise whose ultimate objective is the continuous provision of some kind of material resource. Realization of this objective is achieved by solving such primary tasks as calculating the size of the order, determining the time interval between orders, calculating and recording the current level of material inventories in warehouses of different levels, determining the size of the guarantee (insurance) stock, calculating the maximum (extreme) value of the stock, which is characteristic for an additional reserve strategy [4].

Analysis of the management system of material inventories in the enterprise activities allowed to distinguish the following two of its main problems:

1) the lack of uniformity in the names of material values, as a result of which it is impossible to accurately determine the consumption of a certain type of material values for a specific period of time, and accordingly, calculate the corresponding reserve norms;

2) the lack of a single optimal strategy and, accordingly, a system for material inventories management at the enterprise and the correct calculation of its parameters, taking into account unforeseen changes in the market.

In order to solve the above problems, we propose an effective chain of actions to improve the strategy for material inventories management in the activities of the enterprise, which is presented in the form of a tree of objectives.

Therefore, the improvement of the strategy for material inventories management should be carried out in the following sequence:

1. Systematization of items of inventories of material assets:

- introduction to the enterprise of a bureau of normative and reference information;
- creation of an expert group for the analysis of the existing nomenclature of material assets;
- development of a classifier and a directory of material assets.

2. Development of an effective inventory management strategy for inventories of material assets:

- grouping of material assets on the basis of drawing up a joint matrix of ABC- and XYZ-analysis;
- calculation of reserve norms of inventories and forecasting of demand for material values;
- selection of the inventory management system for each received group of inventory items;
- determination of the methodology for calculating the key parameters for each group of inventories material assets with regard to the selected management system: the calculation of the norms of inventories, the annual purchase demand, the margin of safety, the threshold level of inventories in the warehouse, the maximum desired level of inventories and the size of the order.

3. Implementation of a strategy for material inventories management in the operation of an enterprise.

The development of measures to improve the strategy for material inventories management at the enterprise must begin with the systematization of the names of inventories of material assets, then an effective strategy for managing them is developed. As a result, the process of implementing the developed strategy for managing inventories in the activities of the enterprise is carried out.

Therefore, it is necessary to select an effective inventory management system for the received groups of material resources in warehouses and to analyze its main parameters.

Depending on the prevailing conditions on this or that segment of the market, one should take into account that strategy of inventory management, the ultimate goal of which is the continuous supply of the enterprise with specific types of material resources [5].

The analysis of constraints to achieve the set objectives is given in the form of taking into account risks, uncertainty and safety of the implementation of the proposed measures to improve the strategy of material inventories management in the enterprise.

As a matter of recommendations, material inventories in the category "pressure gauges" are considered, management of which is recommended to be implemented on the basis of systems with a specified periodicity of replenishment of reserves to the established level and "minimum-maximum" depending on the particular group of manometers in accordance with the joint matrix ABC- and XYZ- analysis. The process of using the selected system of material inventories management includes calculating the maximum inventory value, which is typical for the additional reserve strategy. The guarantee of requirements is ensured by creating an additional reserve of material resources. The size of the additional reserve in our case corresponds to the size of the guarantee (insurance) inventory, which meets the enterprise's need for the necessary material resources in the event of an alleged delay in delivery.

Economics

Proposed measures to improve the strategy of material inventories management in terms of their impact on the final financial result will reduce logistics costs, but do not affect the volume of produced and sold products by the enterprise. The qualitative nature of the implementation of the proposed activities includes the introduction of changes in the organizational structure of enterprise management, as well as the development of a classifier and a directory of material assets, the responsibility for escorting them will be assigned to the bureau of normative and reference information.

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