METHODOLOGY FORMING STRATEGIES FOR MANAGEMENT OF COMMERCIAL RESOURCES OF TRADING ENTERPRISES

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Abstract

The purpose of the study is to develop a methodology for the formation of a strategy for managing the inventory of trading enterprises. This methodology allows us to ensure the synchronism between the processes of efficiency of formation of inventory and sales efficiency of products.

The study examined the main types of inventory management strategies. The following basic stock management strategies were highlighted as the most common: 1) “Just in time” strategy (depending on need); 2) SIC (statistical inventory control); 3) stock replenishment strategy with a period of order size. When forming a strategy for managing the inventory of a trading enterprise, the main role is played by the costs of their formation. By forming inventories, they decide the question of satisfying the various needs of consumers by providing them with the right to choose goods from a wide range. It is impossible to solve this issue without the necessary inventory. In making the choice of a method for managing the formation of inventories, a trading company seeks to ensure that they reach their optimal level. The achievement of the minimum or optimal level of inventory is presented by us through integrated inventory management strategies as part of the general direction of inventory optimization based on the relationship of management, accounting and complex classes of procedures. To determine the mechanisms and methods of managerial influence, a tool such as a strategy is used.

As a result of research, an alternative strategy was proposed, depending on the potential and type of which the type of inventory strategy was determined. The following are identified as possible alternative strategies for managing inventory: proactive, inertial, dissipative, convergent, and rehabilitation.

Thus, the determination of the type of strategy for managing the inventory of a trading enterprise is based on a certain relationship between the level of quality of inventory management, their management policy and the nature of changes in demand.

Key words: Inventory, Trading company, Inventory management, Strategy, Class procedures, Functional model, Cybernetic approach, Stratagem.

1. Introduction

Ineffective inventory management leads to two problems: the formation of illiquid assets and/or the emergence of a shortage of goods. To eliminate them, it is necessary to develop an optimal inventory management strategy.

An important step in the process of inventory management is to define strategies for managing them. Inventory management can be successful, if at any time the trading enterprise has a need for the sale of goods.

When choosing a strategy for managing inventory of commercial enterprise costs play a major role in their formation. Inventory management is usually carried out under different constraints: deadlines for orders...
and their implementation, depending on the scope of the party purchasing goods, and depending on the level of inventories.

This necessitates a strategic approach to inventory management based on the most significant and influential factors. Thereby the aim of this research is to develop a methodology for the formation of a strategy for managing the inventory of trading enterprises.

2. Materials and Methods

In order to make a reasonable choice of the basic strategy for managing inventory at trade enterprises, their main types were systematized, which were reflected in the proposed cycle of the relationship between the classes of procedures for the strategic inventory management cycle of a trading enterprise.

For a graphical representation of the influence of all factors that determine the type and direction of the inventory management strategy, a convergent cube model is proposed.

The developed model of a convergent cube is based on the scientific and methodological approach - "64 stratagems" in managing strategic changes. The "64 stratagems" model is based on a cybernetic organization model, which is formed on the basis of analogy of control processes between biological organisms and groups of people, taking into account the structure, direct and feedback.

The implementation of the proposed approach to determining the type of strategy for inventory management of a trading enterprise provided an opportunity to develop 27 alternative models of inventory management strategies.

3. Results and Discussion

3.1 Problem Solution

Theoretical aspects of inventory management of retail trade enterprises are explained by many scientists, and these theoretical and methodical studies and selection of the optimal strategy for inventory management need further depth of improvements. Studies have shown that the overall strategy during inventory management understand the set of rules by which decisions are made at the strategic and operational planning, monitoring and adjusting a set of parameters which associated with stocks [1].

However, focusing on the relationship of the various levels of government this definition, from our point of view are not clearly separates rules. The strategic goals of inventory management are dependent on overall strategic objectives of commercial enterprises, which may be an increase in the consumer market segment, increasing equity and the market value of the enterprise, increase profits and profitability, improving range, increased trade service and others.

As the strategic objectives of inventory control Mazaraki, Lihonenko, and Blank, distinguished: sustainable range and rhythmic exercise trading process, the accumulation of products of seasonal demand and purpose, the implementation of speculative trading in bulk commodities during periods of favorable trading conditions, and to prevent impairment of available free cash assets in an inflationary economy under [4].

Being in essence true, such a formulation in our view does not reflect a systematic approach to inventory management. It seems more precise definition of the strategic goal of inventory management as the organization smooth trading at the lowest cost and maximum satisfaction of consumer demand [7].

Strategies of inventory management are varied; most of them depend on the tactics of management indicators of demand, supply planning, and analytical study of the combination of a multitude of market performance. In the economic literature there are the following types of inventory management strategies [2, 3]:

1. Strategy of greatest caution. According to this strategy, the required reserve amount is calculated by multiplying the maximum consumption of inventory (under any heading) for one day for the longest period of supply. As a result, creates inventory that cannot practically be fully used until the next execution of orders for their replenishment. It should be noted that this market strategy of inventory management, generating the formation of the remaining inventory of goods movement system, so the more applicable in the form of small logistics systems.

2. Strategy of additional reserves. Warranty requirements provided in this case by creating additional reserves of material resources. The value of additional reserves is determined by one of the following methods: - Method 1. The size of the allowance is determined depending on the size of the average demand multiplied by the average of the implementation period, adjusted by a factor of safety, usually accepted value in the range of 25 - 40%. - Method 2. A reserve unit of inventory is determined as a measure of the square root of the average value of goods for the period.

It should be noted that in the economic literature there is a strategy based on the use of indicators of demand
from the consumer market [5]. Such a strategy is “Strategy percent of the demand”, which is based on a study of the frequency of demand for certain inventories in the course of a given time period. The data are taken into account on a cumulative basis, in the form of a graphical display of the demand curve and on the basis of identifying a safety stock that can be spent without disrupting the reliability of the functioning of the system under study.

Studies have shown that nowadays quite common are the following basic strategies of inventory management: strategy “Just in time” (depending on needs); SIC (statistical inventory control); and strategy to replenish inventories of the period and the size of the order (Table 1).

In determining the vector of strategic inventory management is quite important thing is also to choose the method of formation control of inventory: “lot for lot” or “a purchase order”, to a maximum replenishment of inventory, order a fixed amount of inventory or method “to order” - under order.

Through the choice of a particular method of forming inventory management trading enterprise is committed to achieve optimal levels. Consequently, the pursuit of minimum or optimal level of inventory can be represented us via integrated inventory management strategy in the general direction of optimization of inventory based relationship management, settlement procedures and complex classes (Figure 1).

Graphical representation of the impact of all factors that determine the type and direction of inventory management strategy is shown in Figure 2.

Table 1. Key characteristics of modern basic inventory management strategies of commercial enterprises

<table>
<thead>
<tr>
<th>Title basic of strategy</th>
<th>Description of strategy</th>
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<tbody>
<tr>
<td>Just in time (depending on the needs)</td>
<td>Formed a “safety stock” (Safety stock) to the extent necessary for a certain time, or determined by the “order point” (reorder point) - the critical level of inventory, which has been reached when necessary make an order to the supplier, and “replenishment rate” and balance - of inventory above which it is not recommended to raise the level of inventory warehousing particular product.</td>
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<tr>
<td>SIC (statistical inventory management)</td>
<td>Involves the application of statistical methods in modeling demand and replenishment time of inventory. Under this strategy, the need for repeated between points of order established based on the maximum level of inventory in stock that will provide the maximum satisfaction of consumer demand, and for commercial enterprises - ensuring maximum return on inventory.</td>
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<tr>
<td>“Minimum-maximum” (strategy to replenish inventory with period and size of the order)</td>
<td>This strategy of inventory management (s, S) has two governing parameters: lower (critical) stock level s and upper stock level S. If after x denote the value of stocks before deciding on their recruitment, through z - value replenishment, and because y = x + z - value stocks after updating, the inventory control strategy (s, S) is defined conditions: $$y(x) = \begin{cases} x &amp; \text{at } x &gt; s \ S &amp; \text{at } x \leq s \end{cases}$$ Thus, replenishment of inventories does not occur if the level is greater than critical, that is s; If the level that is less than or equal to s, then the decision is made to replenish the upper level S so that replenishment quantity is equal to: $$z = S - x.$$</td>
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Legend: Compiled by the author based on the generalization [5, 6].

Given the proposed approach to building strategies of inventory management to determine the mechanisms and methods of managerial influence can be used a tool like stratagem.
To meet the challenges of economic enterprise management has been used for the first time stratagem by Tarasenko for the purpose of research and evaluation processes of co-evolution of leadership and environment. According to the proposed approach the development factors are based on the model “64 stratagem,” which is based on cybernetic model of organization. This model is based on the analogy between biological processes which control organisms and groups of people based on structure, forward and backward linkages [2].

Based on the ideas of S. Bir and taking into account the proposed approach by Tarasenko [2, in the article is developed functional model of stratagem that describe the following relationship:

\[ F = \left( D^{PSG}; R^{RDI}; R^{NIV} \right) \]  

(1)

Where: \( D^{PSG} \) is forecast direction of change of public demand

\( R^{RDI}, R^{NIV} \) is quality level of inventory management: unsatisfactory, satisfactory, high;

\( P^{RDI} \) is type of inventory policy management of trade enterprise: stochastic, dominant, integrated.

In graphical form inventory stratagem of commercial enterprise can be represented as follows (Figure 3).

Submitted functional model according to the cybernetic approach demonstrates the diversity that creates conditions for \( N^k \) states in sensorium. In the developed model \( N = 3 \) and \( k = 3 \), since each of the three components of a functional model can have three possible states.

Depending on the capacity and type of strategies is determined by the type of inventory management strategy. As possible alternative strategies for inventory management, the following: proactive, inertia, dissipation, convergent, and sanitational.

Characteristics of the strategies presented in Table 2.
4. Conclusions 

- In this way, consideration of the influence of the most important factors, for which we have identified the forecasted direction of changes in the demand of the population, the level of quality of inventory management and allows us to determine private areas within the general direction of the inventory management strategy, characterizes the desire to optimize inventory in the enterprise.

- Implementation of the proposed approach to the formation of a strategy for inventory management will ensure synchronism between the processes of efficiency of formation of inventory and sales efficiency of products.

5. References 


