Logistic Supply Chain Management and Economic Security of the Enterprise

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***Abstract*- In recent years, the interdisciplinary research of supply chains and economic security has received extensive, yet gradual, attention; when compared to the rapid economic growth of the service industry, however, sustainable supply chain management has not been systematically explored yet. The security issue in supply chains is among the most pressing concerns that firms are currently facing. So the purpose of this article is to formalize the process of interaction between an enterprise and suppliers of components necessary for the production of products. The process is considered from the point of view of determining the best conditions for the operation of the enterprise under which the production of all planned products is ensured and the costs of the enterprise for the acquisition of components necessary for the production are minimized. The model reflects the unambiguous dependence of purchases on the range and volume of output. Typically, when simulating supply chain processes, the emphasis is on managing the inventory of components of one item on the one hand or on minimizing the cost of shipping only one component. With this approach, the costs of the enterprise as a whole usually fall out of consideration. The proposed economic and mathematical model establishes a close interdependence between the proceeds from the sale of products and the costs of acquiring the components necessary for the production, between the capabilities of suppliers and the needs of the enterprise, in a supply chain model. In this model, emphasis is placed on ensuring the reliability of supplies, their magnitude and timeliness, which should be stipulated in contracts for the supply of necessary components. The model implicitly takes into account the presence of accounts payable, which may affect the amount of funds allocated for the purchase of components necessary for the production. The advantages of the model should also include accounting for the availability of components at the time of procurement. As an additional effect of the application of the model, the possibility of minimizing working capital through the implementation of a sound logistics policy based on existing working capital and their use to ensure timely delivery in the required volumes of components is considered. The supply chain ensures the economic security of the enterprise. The effective use of working capital contributes to an increase in the profitability of the enterprise and, as a result, to an increase in the income of the owner.**

Keywords; *logistics, supply chain management, production program, economic and mathematical model.*

1. Introduction

Production and operations management continues to change with market conditions, which prompts enterprises to adjust their business strategies, as well as Supply Chain Management (SCM). With the intensification of the supply chain globalization process, the role of economic security has increased significantly. The global financial crisis has shown the need to form a well-functioning system in this area, which could ensure the development of business and the economy as a whole with effective methods.

Economic security is considered at two levels: at the macro level, that is, as the security of the state, and the micro level as the safety of the enterprise. Let us consider the latter in more detail, but before proceeding to the term “economic security of an enterprise”, we consider such concepts as “enterprise” and “security” [13].

The generally accepted interpretation of the term “enterprise” is as follows: an enterprise is an economic unit that carries out direct production. This definition does not take into account such a factor as cooperation based on the division of labor in the production process. It is cooperation that allows us to represent the enterprise as an organizational and technological unity, it fixes the enterprise as a business entity.

Thus, a more complete definition of this term can be given: “an enterprise is an economically isolated business entity acting as a link in social production in the form of a complex of productive forces representing cooperation based on the internal division of labor” [15].

We can list many definitions of the term in question. There is still no consensus in the economic literature on the nature and content of this concept, however, there are three main approaches to determining economic security.

What is the essence of economic security? For an entrepreneurial structure, it consists in creating a state of the best use of resources to prevent threats to entrepreneurship and to ensure conditions for stable, efficient functioning and profit.

Moreover, among the main tasks of the economic security system of an enterprise, the following can be distinguished:

- protection of the legitimate rights and interests of the enterprise and its employees;
- data analysis and forecasting the development of the organization;
- timely identification of possible external security threats to the enterprise and its employees;
- Prevention of penetration of competitors' economic intelligence structures into the enterprise;
- counteraction to technical penetration for criminal purposes;
- protection of information constituting a trade secret;
- physical and technical protection of buildings and structures. Territory and vehicles, etc.

Factors of economic security of an enterprise will directly depend on the type of its economic

activity, on the goals and objectives of a particular enterprise.

Among the main factors of economic security, exogenous and endogenous are most often distinguished. The former includes the economic and political environment, fiscal policy of the state, the saturation of the financial market, labor resources, means of production, sales markets [21, 20, 23]. Examples of endogenous factors are the personnel policy of the enterprise and personnel, the economic policy of the enterprise, ensuring financial independence and sustainability, enterprise competitiveness management, marketing, innovation, unforeseen circumstances, etc. [14].

According to another classification, the following factors of economic security of an enterprise can be distinguished [25]:

- organizational structure of the enterprise;
- staff;
- technology;
- innovation;
- information environment;
- management;
- property of the enterprise;
- enterprise finance, etc.

These factors are not only elements of ensuring the economic security of the enterprise, but also sources of potential threats. Therefore, there is a need to work in the organization of top managers who would pay attention to both aspects of this problem. In this case, it is important to determine the specific weight of each of the factors in the general level of enterprise risks and their participation in the process of ensuring economic security [22].

Achieving effective enterprise management and ensuring economic security is possible only by creating an integrated system for managing the above factors and ranking them (30). For example, with regard to such a factor as personnel, the organization's management needs to distribute powers and levels of responsibility among employees [28].

An important role in ensuring economic security is played by work with the personnel of the enterprise and its potential employees. The prospects for the development of the enterprise largely depend on the consciousness and qualifications of employees.

Thus, the factors of ensuring the economic security of the enterprise are a set of environmental conditions (both external and internal) that affect the security parameters.

Security should be understood as a state of the subject in which the probability of a change in the qualities and parameters of its external environment inherent in this subject is small, less than a certain interval.

To analyze the level of economic security of an organization, it is necessary to monitor the activities of the enterprise and compare the obtained indicators with threshold values [15]. Below are the main tasks of monitoring an economic entity:

- assessment of the state and dynamics of the enterprise;
- determination of external and internal factors that affect the potential of the enterprise;
- identification of risk-generating factors;
- modeling the impact of threatening factors on the viability of the enterprise;
- development and implementation of measures to eliminate identified threats.

Regardless of industry affiliation, the state of economic security of an enterprise goes through several stages: stable, pre-crisis, crisis, critical [16, 17].

The economic security of the enterprise depends not only on the efficiency of the production processes used, but also on the interaction with partners supplying the necessary components, including materials, components, energy, information [2]. Interest in the joint activities of the enterprise and partners is based on economic interests, which, being realized, are a necessary condition for the economic security of each of the parties. Therefore, the creation of a logistic structure of an enterprise that creates the necessary conditions for its effective and safe operation always remains an urgent task [9, 10].

In order for the enterprise architecture, including its logistic system, to be effective, it must satisfy a number of requirements [8]:

1. It is necessary to ensure interaction between the production and logistics systems of the enterprise in order to produce products in accordance with the concluded contracts for its delivery with the agreed work of all production links according to a single schedule. This is, first of all, the coordinated activity of the production and logistics systems of the enterprise, involving the efficient use of available resources.

2. Ensuring the continuity of production and the continuity of the involvement of the main business processes of the enterprise in the implementation of the production program. These requirements are contradictory, since there is either incomplete use of capacities due to insufficient front of work, or interruption of the production period due to lack of capacities, or due to the other at the same time due to the unbalanced structure and capacity values relative to the structure and volume of output under contracts. The task is that it is preferable, simple or incomplete use of capacities on the one hand, or an extension of the contract execution period on the other. The duration of production of a product is determined by the timing of the implementation of contracts for its supply. Therefore, a compromise between the continuity of production and the use of capacities is achieved while meeting the deadlines for the implementation of contracts.

3. Ensuring the reliability and reliability of planning the implementation of the production program of the enterprise, which is represented by a set of concluded contracts for the supply of products. The subject of the contract is an agreement on the timing and volume of supply of products [1].

The problem is to agree on the terms and volumes of the supply in accordance with the capabilities of the enterprise, its capacity structure and the structure of the production program, which represents the totality of the contracts concluded. When planning the implementation of the production program, you have to face in separate planned periods with:

- deficit of production capacities due to a shortage of labor and equipment in a given period. This leads to additional overtime work, violation of the terms of delivery of finished products, decrease in product quality;
- downtime of production capacities due to the lack of a front of work on the implementation of the production program, since a deficit of some capacities leads to downtime of others, which go further along the technological chain;
- operational changes in the order of execution of certain orders under the contracts. Result: interruption of the production cycle of work under one contract, which unexpectedly but further becomes priority, which directly affects the performance of work under other contracts;
- premature receipt of the necessary components necessary for the implementation of the production program, which is an inefficient use of working capital and leads to the appearance of surplus and sinking reserves;
- shortage of components necessary for the implementation of the current production program due to their late order or lack thereof.

Ultimately, failure to comply with the above requirements leads to:

- ineffective inventory management, which can be excessively large, which does not exclude the appearance of a deficit for some necessary components in this planning period. At the same time, a high level of total component stocks results in high costs for their content, and a lack of components leads to a lag in production schedules;
- low utilization of equipment due to inefficient scheduling (switching from the production of one type of product to another, interruption of work, the appearance of bottlenecks in production, equipment breakdowns, reduced demand for manufactured products;
- deviation from production technology due to the replacement of permanent technological routes with specially selected sequences of operations bypassing bottlenecks. As a result: an increase in the volume of commissioning work, a lack of the necessary technological equipment, a decrease in production efficiency.

These problems are caused by an erroneous idea of the production process as a deterministic process and indicate insufficient forecasting of the state of the external environment, as well as the lack of the necessary efficiency of planned activities, which in most situations does not take into account the stochasticity of the planned processes. This situation is a consequence of used assumptions:

- the duration of the production cycle of manufacturing products is considered deterministic and fixed, although in reality it is stochastic, and its fluctuations significantly affect the timing and costs;
- all work on manufacturing products is on a critical path, since an increase in the duration of work under one contract is reflected in the timing of work under other contracts;
- the intensity of work is subject to strong changes due to differences in unit costs in different contracts, which directly affects the duration of each contract and the cost structure for its implementation, including labor input.

Ultimately, the low adaptability of planned activities in relation to production and logistics leads to:

- a constantly arising shortage of capacities and components necessary for the current production for some core business processes, and then insufficient loading and an excess of components for other core business processes;
- the occurrence of bottlenecks due to the mismatch of the capacity structure with the structure of the production program in each planning period.

The imperishable relevance of building an effective logistics system is associated with an ever-changing situation in the enterprise's product markets, which forces us to improve the product line by abandoning one product, improving existing and starting new production. As a result, suppliers are changing accordingly, the structure and volume of the supplied components (materials, components) is changing, the labor input, material consumption, capital intensity, and energy intensity of products are changing. Therefore, there is a constant need for supply planning, which includes:

- selection of suppliers who can provide the necessary components for the production of products;
- determination of the nomenclature and volume of deliveries in each planning period based on the capabilities of the enterprise.

These opportunities are associated with limiting the cost of the supplied components, which in each planning period affects the cost of production and the amount of funds that can be allocated based on the company's revenue and distribution of this revenue according to obligations, including tax deductions, remuneration for staff labor, owner's income, depreciation and other payments. Therefore, the volume of purchased components in each period is limited. It should also be borne in mind that the proceeds from the sale of products from the previous production cycle are spent, which, on the one hand, is designed to finance both the costs of the current production cycle and the purchase of necessary components for building products for the next period (Fig. 1).

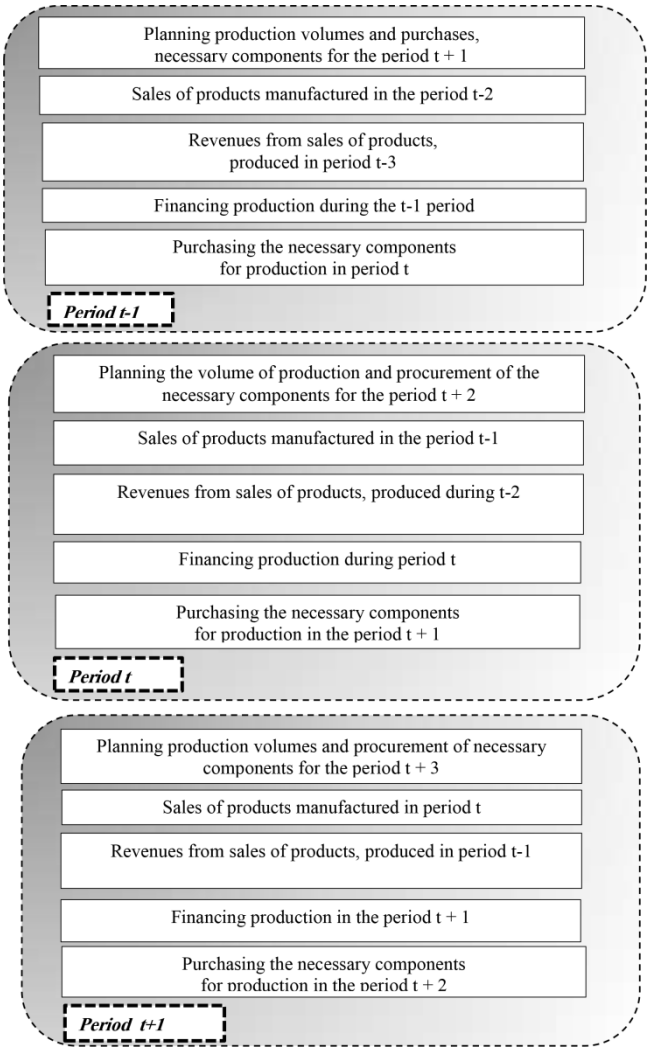

Fig. 1. The distribution of supply chain management decisions by periods.

Thus, it is necessary to take into account the (temporary) lag that inevitably arises in the process of financing the production process. Given the changes in production volumes from period to period, as well as restrictions on the supply volumes of each component necessary for the production of products, and other circumstances mentioned above, the conclusion is inevitable that the amount of funds allocated for the purchase of components necessary for the production of products is subject to wide fluctuations.

Due to the limited working capital in the enterprise, accounts payable inevitably arise, which also fluctuates widely. Repayment of accounts payable is determined by the terms of delivery, which should be fixed in contracts with each partner, who, in turn, seeks to minimize accounts receivable. In practice, it is believed that the volume of receivables should not exceed two months of production, if we are talking about mass or mass production.

On the other hand, the volume and frequency of deliveries of the components necessary for the production of products depends on the conditions of their production. If, for example, power supply to the production should be carried out continuously, then the materials and components can come in certain batches, based on the conditions of their production, the possibility of transportation. And the production of materials and components is carried out by partner suppliers periodically, since they work under supply contracts.

Due to the wide variety of components supplied, their production is carried out in series, and for the production of each component, equipment readjustment is required. Thus, the enterprise is forced to order more supplies than is required for current production. Hence the creation of reserves at the beginning of the next planning period.

2. Materials and Methods

Supply chain security management is vital to support the organization in safely achieving its business goals and objectives. Consequently, the interaction of the enterprise and supplier partners is accompanied by numerous restrictions on the one hand, and conflicting economic interests on the other. In these conditions, the management of the enterprise, ensuring its economic security turns into a problem, the solution of which requires the use of a system analysis apparatus, one of the most effective methods of which is the economic and mathematical modeling of economic systems. The analysis allows us to conclude that it is necessary to present the process of interaction between the enterprise and suppliers in the form of a conceptual model that allows you to display the relationship of all the above dependencies.

Research on a conceptual model allows you to get quantitative estimates that give the most complete picture of the enterprise's response to management decisions [7].

The model of interaction between the enterprise and suppliers is based on a number of hypotheses.

As the first hypothesis, the assumption is used that the process of functioning of the enterprise can be represented as a sequence of planning periods. In each period, regardless of the presence or absence of changes in the production program, the processes are repeated:

- planning production volumes and procurement of necessary components for subsequent periods;
- sales of products manufactured in previous periods;
- revenue from the sale of products manufactured in previous periods;
- financing of production in the current period;
- procurement of necessary components for the production of products in subsequent periods.

A repeating sequence of processes makes it possible to present the process of interaction between an enterprise and suppliers in the form of a static model.

The second hypothesis: the company has sufficient storage space to accommodate all purchased components necessary for production.

The third hypothesis: the supply of necessary components for the production of products can be

carried out each planning period in batches, the size of which is determined by the supplier.

Fourth hypothesis: each product requires the purchase of its components. From this assumption it follows that the parts repeated for a number of types of products are manufactured at the enterprise. And the purchase of the necessary components is preferable for economic reasons.

Fifth hypothesis: the unit price for all supplied components does not depend on the volume of deliveries.

And so, we assume that three sets are defined:

I - a variety of products manufactured by the enterprise;

J - many components necessary for the production of these products;

S - many partners supplying components necessary for the production of products.

Each partner can supply a specific subset of the necessary components $J_s \in J$. For each component $\forall j_s \in J_s$, the following are defined:

$n_{j,s}$- the number of components (materials, components) in the delivered batch;

$c_{j,s}$ - unit price;

$k_{j,s}^{min}$, $k_{j,s}^{max}$- the minimum and maximum number of parties that this partner s can supply. The minimum number of batches of products is determined by the economic feasibility of their production, and the maximum value is dictated by the need to maintain relations with all enterprises ordering the components they need;

$p_{j,s}$ is the reliability of the delivery of components in a given time and in a given volume ($0 < p_{j,s} \ll 1$). Reliability depends not only on the partner's ability to manufacture and ship components according to the contract, but also on the transportation options on time.

As the model variable, we use the variable $x_{i,j,s}$, which characterizes the number of batches of the component $j \in J$, supplied by the partner $s \in S$, for the products $i \in I$.

For the enterprise, a value of B is specified that limits the volume of procurement of components for a given planning period. This value is determined by the part of the proceeds that is currently available and expected to be received (according to the payment calendar), which can be used to purchase the necessary components. On the other hand, the magnitude of the procurement of the necessary components is determined based on the planned production volumes of the subsequent period. In the case of a shortage of funds allocated for the purchase of components, it is necessary to obtain a loan to increase working capital. Otherwise, accounts payable arise, the problem of repayment of which must be foreseen in subsequent periods.

Each unit of production $\forall i \epsilon I$ is characterized by the vector $a_i = \{a_{i,j}\}$,, where $a_{i,j}$is the required number of components $j \epsilon J$ (materials, components) for the production of $i \epsilon I$products. And for each product $\forall i \epsilon I$the planned output volume d_i.is set.

In addition, for each product $\forall i \epsilon I$ for each component j_i, the value of reserves at the beginning of the planning period is $m_{i,j} \geq 0$.

Then the task is to determine such a set of values $\{x_{i,j,s}\}$ that provides a minimum of costs for the purchase of components necessary for the production of the planned volume of output, i.e. functionality that takes into account the reliability of supplies, i.e.

$$F = \sum_{i \epsilon I} \sum_{j \epsilon J} \sum_{s \epsilon S} p_{j,s} c_{j,s} n_{j,s} x_{i,j,s} \rightarrow min$$

must reach a minimum when the following conditions are met:

• component purchases must not exceed a predetermined value B

$$\sum_{i \epsilon I} \sum_{j \epsilon J} \sum_{s \epsilon S} c_{j,s} n_{j,s} x_{i,j,s} \leq B \quad (1)$$

• procurement of components from each partner should be in a certain range

$$k_{j,s}^{min} \leq x_{i,j,s} \leq k_{j,s}^{max} \text{ for } \forall i \epsilon I, \ \forall j \in J, \ \forall s \in S \quad (2)$$

• procurement of components should provide output for each product of the planned output

$$\frac{1}{a_{i,j}} (m_{i,j} + \sum_{s \epsilon S} n_{i,j} x_{i,j,s}) \geq d_i \text{ for } \forall i \epsilon I \text{ и } \forall j \in J \quad (3)$$

The given model allows, depending on the options for the planned volume of production, to determine the most profitable procurement volumes from a management point of view, varying:

- the composition of suppliers and volumes of purchases from them due to changes in such parameters as unit price ($c_{j,s}$), which may depend on the volume of deliveries, or by limiting the number of delivered lots ($k_{j,s}^{min}$, $k_{j,s}^{max}$);
- the value of reserves due to changes in the parameters of reliability of supplies ($p_{j,s}$);
- volumes of purchases (B, d_i).

In general, the model allows us to evaluate the consequences of various options for decisions regarding the provision of production with the necessary components.

The first limitation takes into account the possibility of creating stocks in case of non-fulfillment of component deliveries at a specified time and in a given volume. The value of reserves in this case is equal to

$$\sum_{i \epsilon I} \sum_{j \epsilon J} \sum_{s \epsilon S} (1 - p_{j,s}) c_{j,s} n_{j,s} x_{i,j,s}$$

These stocks can play the role of insurance for future periods or can be created in case of a planned increase in production volumes of a particular product. In addition, it is possible to create stocks of necessary product components if deliveries are made over long periods. The creation of stocks may be due to seasonal fluctuations in demand for the products of the enterprise. Thus, the model takes into account the possibility of inventory management.

The second restriction allows you to vary the composition of suppliers and the volume of components purchased from them. Changing the

boundaries allows you to determine the most profitable option, where there will be more than one supplier of certain components, which reduces the dependence on the behavior of this partner.

The third limitation is directly related to the estimated volumes of output and allows you to closely link production planning and its provision with the necessary components.

3. Results

Service supply chains and manufacturing supply chains both belong to the field of supply chains. However, in the existing literature, supply chain management in the manufacturing industry is far more studied than supply chain management in the service supply chain. The model presented above is a linear programming problem and there are no problems when solving it, but its use has a wide range of applications. The proposed model is designed to assess the reliability of the logistics system of the enterprise and the risks associated with this activity, which are primarily associated with the volume and timeliness of deliveries of components necessary for the production. As a result of the practical use of the model, both the choice of the composition of suppliers and various options for supply volumes are estimated based on reliability.

The presented model allows you to cover a wide range of logistic activities of the enterprise, covering:

- selection of suppliers;
- analysis of assessing the reliability of suppliers;
- possible supply volumes of each supplier;
- assessment of the adequacy of working capital.

In this model, the emphasis is on ensuring the reliability of deliveries, their size and timeliness, which should be stipulated in contracts for the supply of necessary components. The model implicitly takes into account the presence of accounts payable, which may affect the amount of funds allocated for the purchase of components necessary for the production. The advantages of the model should also include accounting for the availability of components at the time of procurement**.**

As an additional effect of the application of the model, the possibility of minimizing working capital through the implementation of a sound logistics policy based on existing working capital and their use to ensure timely delivery in the required volumes of components is considered. This ensures the economic security of the enterprise. The effective use of working capital contributes to an increase in the profitability of the enterprise and, as a result, to an increase in the income of the owner.

A sufficient variety of model parameters allows us to analyze different options for the logistics and production policy of the enterprise based on various scenarios. These scenarios involve a change in the product range, output, prices of supplied components, as well as the composition of suppliers depending on the current pricing policy and possible payables.

The limitation of funds allocated from the proceeds to the timely provision of the necessary components contributes to the fulfillment of the obligations of the enterprise on remuneration, repayment of payables, tax payments and income of the owner. At the same time, it is assumed that the volumes of output of products that are in demand are sufficient to fulfill the above obligations.

In this case, the timing of receipt of the necessary components for the planned production is the factor that is called upon to fulfill the listed obligations of the enterprise and, thus, ensure its economic security. The proposed model is the manager's tool that allows not only to justify the logistics policy of the enterprise, but also to verify the effectiveness of the product strategy [12].

In entrepreneurial activity, there are a large number of different risks, since each of its types has peculiar (specific) risks [18, 19]. For example, for banking, typical risks are: currency, credit and interest. For commercial activities, the following are typical: insolvency risk, economic and price risks [18, 24, 26].

Risks differ in the place and time of occurrence, the set of external and internal conditions, the type of entrepreneurial activity, the nature of accounting, and many factors, which allows them to be qualified according to various group characteristics [27, 29].

4. Discussion

The proposed logistical supply chain and mathematical model structures management objectives, which are the timely provision of the production process with the necessary components. The model provides for the limited financial resources allocated for these purposes, which compares favorably with the proposed mathematical models [3, 8].

Despite the fact that logistics is considered as a process of managing material, and related information and financial flows in the areas of production and circulation, many scientists cite in their works long-known economic and mathematical models, without specifying their purpose and the use of [1, 5, 3, 6]. Usually, the consideration of logistics begins with the well-known stock management formulas [4, 11].

At the same time, the processes of inventory planning, transportation of storage, costs, and timely provision of the current production program are considered separately. And if we talk about economic security, it all comes down to ensuring the safety of property, without affecting the efficiency of its use. Thus, such key issues of interest to the owner as profit, profitability completely fall out of consideration when modeling logistic processes. It is only natural that in control models, reserves tend to take into account the effects of various external random factors for which the probability of occurrence is unknown.

Therefore, to improve the efficiency of the enterprise, it is necessary to ensure the continuity of management of both production and logistics in each planning period. This will ensure timely execution of contracts for the supply of products and minimize costs.

As a result of this approach to logistics processes, the formation of optimization models of inventory management is becoming more and more popular with methods of the theory of decision-making under uncertainty, which suggests formalizing the scenario approach in the form of a target tree. Optimization in this case consists in determining the optimal parameters that maximize the final economic result. Such problems of optimizing inventory control systems under conditions of uncertainty use many traditional formulas of the theory of inventory management. The proposed economic and mathematical model is free from the above limitations. It takes into account the capabilities of the enterprise to implement the production program from the perspective of logistics. This compares it favorably with existing economic and mathematical models.

5. Conclusion

This study aims to investigate the effect of supply chain security practices on security operational performance by considering security culture as a moderator. The result of this article is the formalization of the process of interaction between the enterprise and suppliers of components necessary for the production of products. The process is considered from the point of view of determining the best conditions for the operation of the enterprise under which the production of all planned products is ensured and the costs of the enterprise for the acquisition of components necessary for the production are minimized. The model reflects the unambiguous dependence of purchases on the range and volume of output. Typically, when simulating such processes, the emphasis is on managing the inventory of components of one item on the one hand or on minimizing the cost of shipping only one component. With this approach, the costs of the enterprise as a whole usually fall out of consideration. The proposed economic and mathematical model establishes a close interdependence between the proceeds from the sale of products and the costs of acquiring the components necessary for the production, between the capabilities of suppliers and the needs of the enterprise. In this model, emphasis is placed on ensuring the reliability of supplies, their magnitude and timeliness, which should be stipulated in contracts for the supply of necessary components. The model implicitly takes into account the presence of accounts payable, which may affect the amount of funds allocated for the purchase of components necessary for the production. The advantages of the model should also include accounting for the availability of components at the time of procurement.

As an additional effect of the application of the model, the possibility of minimizing working capital through the implementation of a sound logistics policy based on existing working capital and their use to ensure timely delivery in the required volumes of components is considered. This ensures the economic security of the enterprise. The effective use of working capital contributes to an increase in the profitability of the enterprise and, as a result, to an increase in the income of the owner.

In addition, the proposed model allows us to consistently clarify both the need for components necessary for production and their order in supply chain system, which in itself allows minimizing the costs of producing a given volume of products, avoiding the creation of surplus stocks. The proposed model can be used both for evaluating the working capital involved for the implementation of the annual production program, and for planning the receipt of the necessary components for the implementation of operational production plans. This allows us to consider supply chain production and logistics processes in systemic unity.

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