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## LOGISTICS AUDIT OF AN ORGANIZATION

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*Logistics audit as the instrument of efficiency increase of enterprise activity is an integral part of an enterprise for definition of changes in the general structure of material, informational streams and inventory items movement. Development and approach realization to the logistics audit of the enterprise will allow to optimize stream processes occurring in it.*

The requirements of customers in the field of logistics are constantly growing. There are new technologies in the organization of business. Consequently, today many companies are forced to rethink their logistics strategy in order to determine the reserves for competition in this situation, the logist faces the following important questions:

1. How many distribution centers do they need and where should they be located?
2. What should be the ratio between the volume of stocks and the level of service for each center?
3. What types of vehicles should be used and how to choose routes?
4. Should the distribution centers be equipped with new technologies of cargo handling?

In order to answer these questions, it is necessary to conduct a logistics audit of the company.

There are many definitions of the concept of logistics audit, below are some of them, the most common:

Logistic audit - an independent assessment by the independent party of the entire supply chain of the company [1].

Logistic audit - a comprehensive audit of the performance of logistic subsystems of the enterprise [3].

Audit (verification) is a systematic, independent and documented process of obtaining audit evidence and objective assessment to determine the extent to which the agreed audit criteria are met [2].

Classical (financial) audit is a type of activity that consists in the collection and evaluation of facts relating to the functioning and position of an economic entity carried out by a competent independent person who issues a conclusion on compliance with accepted standards and rules [3].

These definitions are correct, but from our point of view, they are insufficiently complete and accurate, therefore we offer our own definition:

Logistic audit is a system process of obtaining and evaluating objective data on economic activities and events, on the operation of the logistics chain, establishing the level of compliance of the data obtained with the established criterion and presenting the results to interested users.

Table 1 – Goals and objectives of logistics audit

Goal of logistics audit	Objectives of logistics audit
Providing a detailed objective assessment of the state of the company's logistics system and its individual elements (supply, transportation, warehousing, information flows, accounting, etc.)	<ol style="list-style-type: none"> <li>1. Identifying the strengths and weaknesses of the logistics system of an enterprise</li> <li>2. Determination of positive and negative trends</li> <li>3. Identification of opportunities for development and optimization of activities</li> <li>4. Clarifying cases of inefficient use of resources</li> <li>5. Assessment of the level of competitiveness of the enterprise's products (services)</li> </ol>

As logistics systems of different organizations differ, logistics audit develops individual programs. It can be focused on any kind of management of distribution and warehousing, labor, resources, transportation, supply chain management, logistics function management, accounting and analysis of logistics data, or it can inspect all operational activities within the supply chain. In table 2 the sequence of logistics audit is presented.

## Economics

Table 2 – The sequence of logistics audit

Stages	Content
1 Previous familiarization with the logistics service	Inspection of operational activities and interviewing of responsible employees in the program of logistics audit.
2. Correlation of logistics strategies with general strategies of the company	2.1 Evaluation of the conformity of logistics strategies with the company's general strategies and the definition of existing parameters and metrics of the logistic function. 2.2 Localization of logistics functions in the structure of the company, assessment of the relationship of related units in the supply chain. 2.3 Measuring the performance indicators of the main functional areas of the logistics system. 2.4 Development of a proposal for the introduction of auditors in the management of the company's logistics system
3. Conducting logistics audit	3.1 Management of operations in the part determined by the Program on conducting a logistics audit. 3.2 Formation, implementation of the logistic function measurement system. 3.3 Information support of logistics processes - construction of a system for operational monitoring. 3.4 Collection and analysis of logistic data, management of internal and external documents. 3.5 Structuring of relations between departments, establishment of information relationships. 3.6 Analysis of current activities and identification of potential for improvement. 3.7 Introduction of minor evolutionary improvements.
4. Audit report	4.1 Analysis of the logistics function of the company and a report on the work of auditors 4.2 A detailed analysis of the main sources of hidden costs that can be reduced by changing processes and technologies 4.3 Development of a project for improving the logistics function, calculating the effectiveness of investment or outsourcing
5. Performing improvements	Reengineering of logistics business processes. Training. Initial support and adaptation of personnel to changes.
6. Audit of implemented improvements	Carrying out a second audit to identify bottlenecks and correct implementation of the measures recommended by specialists.

Table 3 – Indicators for the assessment of the logistics system of the enterprise in the areas of logistics

Area of logistics	Indicators
1	2
Transport logistics	Total duration of one logistics cycle Productivity of the logistics cycle Quality of service The magnitude of the irrational mileage, idle time Efficiency of vehicles use Efficiency of using cargo space
Warehouse logistics	Warehouse capacity Contents of 1 m <sup>2</sup> warehouse per month Cost of processing 1 ton of marketable products that has arrived at the warehouse during a month Rhythm of warehouse processes and operations Sufficient and effective use of warehouse equipment Sufficiency and efficiency of organization of work of warehouse staff Planning of receipts and shipments of marketable products from the warehouses of the enterprise

Continued

1	2
istribution logistics	Efficiency of processing orders of customers for the supply of commercial products Organization of rational shipment Control over the performance of transportation and delivery management Inventory management Term and quality of preparation of marketable products for distribution Number of orders completed per unit of time Focus on the consumer market
Purchasing logistics	Reliability of relations with suppliers of raw materials Optimality of the size of insurance stocks Time of the procurement cycle Degree of structuring of suppliers Availability of a cost and purchase cost analysis system The correspondence between the quantity of supplies and the need for them Rhythmical supply
Information logistics	Evaluation of methods for calculating KPIs Degree of structuring of data flows accompanying the material flow Presence of a unified corporate information system Presence of discontinuities in information flows Provision of employees with operational information that contributes to an effective work process Information and communication reliability Operativeness of obtaining information
Production logistics	Efficiency of use of current assets Time of production-technological cycle Volume of loss of resources in the production process Degree of technological flexibility Efficiency of use of production areas Share of auxiliary workers Level of coordination of production plans with sales and procurement plans
Financial logistics	Coefficient of current liquidity Provision of own circulating assets Assurance of financial liabilities by assets Period of turnover of circulating assets Rationality of the formation of financial flows Efficiency of investments use Degree of financial independence

The developed system of criteria for assessing the logistics of the company allows you to quickly analyze logistics processes and create the most optimal logistics strategy in order to minimize costs and ensure uninterrupted supply, correctly and accurately calculate the necessary inventory, calculate the optimal area of storage space and more.

## REFERENCES

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