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THE POSITION OF DISTRIBUTION LOGISTICS IN THE LOGISTIC SYSTEM OF AN ENTERPRISE

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Abstract: Article deals with the focus on branch of logistics and special with focus on distribution logistics, theory, definition and position of distribution logistics in micrologistics model of an enterprise. Distribution logistics, of its range of solutions, is focused on the proposal of distribution systems for enterprises and companies, allocation and placement of companies, warehouses and distribution centres, storing and technical equipment, optimization and dimensioning of the elements of distribution systems, optimization and development of distribution plans, the selection and optimization of modern information and expert systems in the area of distribution, defining the distribution circuits.

1 Introduction

During the reign of the Byzantine Emperor Leontos VI (886 – 911) the term of logistics began to be used for the first time. The Swiss general H. Jomini (1799 – 1869) used the term of logistics as a specific military terminology. He understood logistics as the science of movement, supplying and accommodating of soldiers. At the beginning of the twentieth century, the term logistics started to be in use in the economic field and in the economic literature. At the beginning of the seventies, experts have started to apply the theory of logistics in a practical use. According to some authors logistics can be understood as a branch of science, which deals with comprehensive planning, management, implementation and controlling of material flows, creating of the necessary material flows and information systems for material processing. Logistics is a summary of all

activities for comprehensive management and implementation of material flow in the manufacturing processes and circulations of goods [1], [2].

To achieve the highest performance with maximizing production efficiency, logistics, from the levels of strategic, tactical and operational, defines respectively proposes actions that lead to achieve the required results by using all available means of science and technology, economics and computer science.

The aim of logistics is to create a united, integrated, optimized material flow, which is arisen from different parts of the system in the way to ensure a continuous exchange of goods and services. Logistics is gradually developed and many definitions were developed as well together with it (Table 1), while there are still formed new perspectives on its scope and its level of activity.

Table 1 Definitions of logistics from different point of view from many authors

The author	Year	Views of logistics
Council of Logistics Management [3]	1961	Logistics is the process of planning, management and implementation of effective, powerful flow and storage of goods and related information from point of origin to point of consumption, which aim is to satisfy customer requirements.
J.L. Heskett, N.A. Glaskowsky, R.M. Ivie [4]	1973	Logistics is the management of all activities that facilitate the movement and coordination of offer and demand in creating of time and place benefits.
Ch. Schulte [5]	1991	Logistics is an integrated, market-oriented planning, creation, implementation and control of flows of material, goods, information from suppliers to enterprises, in enterprises and from enterprises to clients at optimal costs.
I. Gross [6]	1995	Logistics is an organization, planning, management and execution of flows of goods, starting at development and purchasing through production and distribution according to the final customer so that all market requirements are fulfilled at minimum cost and minimum capital expenditures.
D. Malindžák [7]	1996	Logistics is the way, philosophy of flows management (material, information and financial), at which there are applied a systematic approach, methods of planning, algorithmic thinking and coordination in order to achieve the global optimization.
P. Pernica [8]	1998	Logistics is the discipline that deals with the overall optimization, coordination and synchronization of all activities in the self-organizing systems, their concatenation is essential to achieve flexible and cost effective final (synergistic) effect.

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Council of Supply Chain Management Professionals [9]	2005	Logistics is the process of planning, implementing and monitoring the efficiency and effectiveness of direct and reverse flow and storage of raw materials, materials in process, products and services, and related information between the point of origin and point of consumption in order to satisfy customer requirements.
M. Straka [1]	2013	Logistics is a system in which there is an affect to elements in order to set coordinated material, information and finance flow, resulting in, respectively, which aims to satisfy customer requirements and respective economic effect.

2 Logistic divisions

In terms of logistics development in a time, there were created and are still created various streams that Logistics and Supply Chain Management (SCM) understand from their point of view [10].

From “traditionalists” point of view (Figure 1a) the logistics is considered as the system which part or a special function is the Supply Chain Management. SCM provides the link between suppliers and customers to ensure a business performance.

From “identicalists” point of view (Figure 1b) the logistics is identical to the SCM. This direction perceives SCM as well as the logistics and it tends to cancel the term of logistics and it fully replaces with SCM.

From “unionists” point of view (Figure 1c) the logistics is a part of Supply Chain Management. SCM provides raw materials purchasing for a company, logistic activities in manufacturing process, sales, which includes marketing and advertising, product development and order fulfilment.

From protagonists of philosophy of “conjunction” point of view (Figure 1d) where logistics and SCM are understood as two separate units, which complement each other and they have separate as well as common parts.

The monograph, you have available, is written in the spirit of traditional philosophy, because the author himself is inclined to this direction. In terms of market and enterprise it can be said that it does not mind what philosophy is applied, important is to help to enterprises and companies to gain a competitive advantage in the market, to reduce costs, to ensure resources for running various enterprises, to ensure consumers and adequate increase of profits.

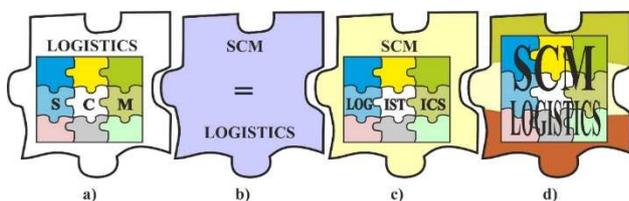


Figure 1 The perception of “philosophical currents” of logistics and SCM [1]

In terms of hierarchical levels and systems theory logistics can be classified as (Figure 2):

- macrologistics (an enterprise is an item in the logistic network, logistic chain),

- metalogistics (the logistics in the level of a region),
- micrologistics (the logistics of an enterprise),
- nanologistics (logistics of a technological process).

Under the term of macrologistics it is possible to understand the distinctive logistics at the supply chain level, where the elements are enterprises, companies and government and the links between them provide materials, information and financial flows (Figure 2).

Under the term of metalogistics it can be understood cooperation at different levels among micrologistic systems and regional specialized objects.

Under the term of micrologistics it is possible to understand the distinctive logistics at the level of an enterprise or a company, whose elements are the basic and supporting subsystems of an enterprise (Figure 3).

Under the term of nanologistics it is possible to understand the logistics of specific technological processes.

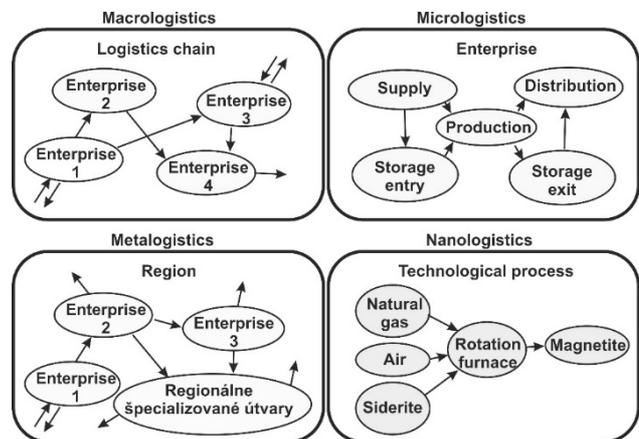


Figure 2 Hierarchic level of the logistics [1]

If assuming the micrologistic model of an enterprise and accounting systemic approach, then the logistics of a company can be divided in terms of sub-processes (Figure 3) [11]:

- logistics of purchasing,
- logistics of service processes,
- logistics of supplying,
- logistics of orders,

- logistics of manufacturing,
- logistics of information,
- logistics of sale,
- logistics of finance,
- logistics of distribution,
- logistics of personnel,
- strategy logistics,
- business service,
- reverse logistics.

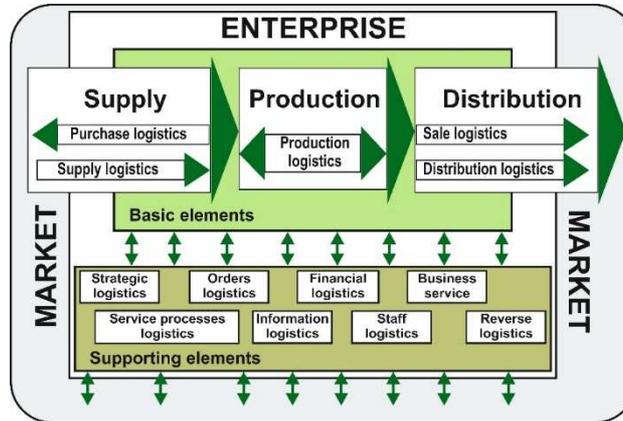


Figure 3 Basic and supporting parts of the micrologistic model of an enterprise [11]

3 The distribution logistics

The distribution logistics provides physical, organizational and information links between the source (output store of manufacturing enterprise) and consumers, the input store or point of acceptance [11].

Logistics of distribution (Table 2) can be understood as the subsystem of the logistics, where elements are the means of storing and packaging, product, service personnel and the links among the elements provide management of means of transport, information and financial flows related to distribution.

Table 2 Definitions of logistics from different point of view from many authors

The author	Year	Views of logistics of distribution
G.B. Ihde [12]	1978	Logistics of distribution deals with problems relating to time and spatial bridged transfers of real goods and among the systems of labour division.
Ch. Schulte [5]	1991	Logistics of distribution is responsible for all storing and transport movements of goods to consumers and related information, management and control activities.
M. Straka [13]	2004	Logistics of distribution has to ensure the most appropriate way, selection and analysis of transport, which is most suitable for transfer of products manufactured by enterprises to achieve failure-free performance of the market.
DHL Logbook [14]	2008	Logistics of distribution includes all activities related to the provision of finished goods and products to the customer. These products may be shipped directly from the manufacturing process or dispatch warehouse to a space of further processing or, where appropriate, through other regional distribution warehouses.
M. Straka [1]	2013	Logistics of distribution has to ensure the most appropriate way of analysis, selection and implementation of all activities and strategic and other decisions related to the provision of products to a customer in a way to achieve failure-free performance of the market.

Logistics of distribution provides a summary of logistical tasks and steps related to the preparation and implementation of distribution. The use of logistics of distribution in an enterprise depends on factors such as manufacturing program, the spatial distribution of production, on the largest cities to demand, on the structure of distribution centres, on the transport available (transport

fleet, quality of transport network), on the time of a distribution [13].

Logistics of distribution deals with the solution of problems in the following areas:

- the choice of location of distribution warehouses (storage allocation),
- storage of goods,
- packaging management of products,

- output of goods and provision of a loading,
- goods transportation.

4 Conclusion

At the strategic level, the logistics of distribution solves how to determine the topology of the distribution system of an enterprise, the system of distribution networks, selecting of the location of the distribution elements, proposal of distribution region, topology of distribution system, proposal of distribution policy. These decisions have long-term validity and high importance. At the strategic level, there are executed decisions about the composition of the entire distribution system. Here are provided decisions about the location of warehouses, choice transport means, definitions how to process orders. The strategic level gives a form for the entire distribution system.

At the tactical level, there are implemented decisions about the use of resources, the construction of warehouses, the equipment, the necessary equipment for materials handling, the specific type of vehicles. This level determines the effective use of the facilities that are available.

In the functional, operational level, it ensures the implementation of distribution in a defined distribution network in a distribution region, distribution management, storage, management of packaging, the output of goods and their loading, transportation.

Logistics of distribution, in terms of macrologistics, ensures physical links between subjects of logistic network and logistic chains.

Logistics of distributions answers the following questions [13]:

Where are resources? Where are customers? Where are warehouses and what kind of them are there? What kind of warehousing and distribution systems will be used? What means of transport should be for distribution? What will be the criteria for the distribution evaluation? Where are stocks and what kind of them? Where to place a distribution centres, an enterprise, a plant? Etc.

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