

LOGISTIC COSTS IN THE ACCOUNTING SYSTEM: THE PROBLEM OF IDENTIFICATION AND REGISTRATION

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Annotation. In the article the problem of identification and registration of logistics costs in the accounting system was studied. Objects of accounting magnets of logistics costs were defined. The peculiarities of the individual components of logistics costs and their impact on the final financial result were revealed. The approaches to the classification of logistics costs were reviewed and the author's approach to classification logistics costs, which minimize their subordinates goals and finding reserves to reduce within specific logistics system was offered.

Keywords: logistics costs, identification of logistics costs, classification of logistics costs

PREFACE

Research conducted by Herbert W. Davis, and promulgated at the annual conference of Council of Logistics Management in 2001, revealed that costs associated with logistics, make up 7–16 percent of total company revenues, or 45 percent of the general and administrative costs [1]. The share of logistics costs in the total cost of production and sales continue to increase as a result of the complexity of supply chains, changing the system of orders and increasing demand for quality of service, and therefore the management of logistics costs is becoming a key factor in increasing the competitiveness of the organization in the current economic conditions. The basis for the effective management is the information on the magnitude and causes of logistics costs, and registration system which the group may be carried out only within the framework of accounting.

However, despite the wide demand of logistics management techniques, to the collection of the information for them in the accounting system in modern economic science is not given due attention.

The object of study in this article are the logistics costs in the accounting system. The purpose of the research is to study the theoretical foundations of the formation of information space of logistics costs within a particular logistic system.

To achieve this goal it is necessary to solve the following tasks: to investigate the problem of identification and registration of logistics costs in the accounting system; to determine the objects of accounting, which are the magnets of logistics costs; to reveal features of the account the individual components of logistics costs and their impact on final financial results; to develop an approach to the classification of logistics costs, subordinate goal to minimize them and find reserves to reduce them within specific logistics system.

SUMMARISED RESEARCH RESULTS

After studying the production activities of a number of companies, it can be concluded that all the groups of logistic functions are characterized so-called integrated logistics costs which may occur repeatedly throughout the supply chain movement of material flows. This is primarily the cost of transportation, the organization of warehousing and storage processes, as well as information provision.

Many authors agree that the logistics costs is difficult enough to identify and register [1–7]. This is primarily due to their versatility, and completely different, historically developed approaches to accounting of the individual components and their influence on the final financial result. And not all of them are the current costs of the reporting period, an even smaller part of them is included in the cost of finished products, and the largest share occurs at the implementation stage and in the management of the organization. Problems arise not only for the supply chain, but also under a separate legal entity.

The complexity of the identification and registration of logistics costs in the accounting system clearly shown in Table 1.

Table 1. Logistic costs in the accounting system of organizations of the Republic of Belarus

The steps of the re-production process, the components of the logistics processes	Kind of logistics costs	Object of accounting	The inclusion in the cost of finished goods	The impact on the financial result of the reporting period
1	2	3	5	6
Supply				
The cost of the physical movement, arising during acquisition of fixed assets	Transport costs, cargo handling and others.	Investments in non-current assets, the original value of fixed assets	Through depreciation in the use of a fixed asset	Indirectly, throughout the period of depreciation
The cost of the physical movement arising on the acquisition of inventories	Transportation and procurement costs	The actual cost of inventories	As used in the production process	Indirectly, as used in the production process
Maintenance of the supply department	Staff salaries, depreciation, deductions from wages, the cost of electricity and thermal energy, etc.	Total economic costs	Not included	It is included in the costs of the accounting period in which it realized
Maintenance of the warehouse inventory	Staff salaries, depreciation, deductions from wages, the cost of electricity and thermal energy, etc.	Total economic costs	Not included	It is included in the costs of the accounting period in which it realized
Production				
The costs of promotion of physical materials between production operations	Transport costs for moving inside the enterprise of raw materials, semi-finished products between production operations and others.	The cost of the main and auxiliary production overhead costs	Infull	It is included in the costs of the accounting period in which the finished products are sold
Distribution (sale)				
Packing	Staff salaries, cost of materials and others.	Implementation costs	Not included	It is included in the costs of the accounting period in which it realized
Maintenance of the Sales Department	Staff salaries, depreciation, deductions from wages, the cost of electricity and thermal energy, stationery etc.	Implementation costs	Not included	It is included in the costs of the accounting period in which it realized
Maintenance of the finished products warehouse	Staff salaries, depreciation, deductions from wages, the cost of electricity and thermal energy, the cost of materials, etc.	Implementation costs	Not included	It is included in the costs of the accounting period in which it realized

Thus special attention merit the cost of information processes, which provides management of logistics operations. In most cases, they are represented by an object of accounting „general administrative costs“, which are included in the cost of the accounting period in which the realized. However, this raises an additional difficulty in the selection of specific information processes and the cost of their implementation, predefined by logistics needs.

Despite the fact that the need for the provision of logistics costs in the system of accounting and analytical information is recognized by scientists and practitioners, methods of collecting such data in the accounting system is still not developed. Existing proposals are mostly limited by the introduction of the plan of accounts and subaccounts additional analytical accounts to account logistics costs [8]. However, such techniques are not developed and does not tried out in specific enterprises. Thus, first of all, we need to clearly define the composition and classification of logistics costs, and secondly, we should decide what we expect to consider specifically: logistics costs incurred or logistics costs as an expense in the period.

Based on the study the classification of logistics costs in the economic literature, we can distinguish their common classification features that are present in many of the authors: the cost center, the phases of the logistics process (logistics functional areas), the main components of logistics processes. However, different authors identify different components of the cost of the specified classifications.

Classification of logistics costs in the economic literature on the general criteria presented in Table 2.

There are other more detailed approaches to the classification of logistics costs, however, as rightly indicated Polish scientists Charles Skovronek and Z.Sariush-Wolski: «From a theoretical point of view is necessary a comprehensive definition of the cost, which reflects the essence of the problem and gives the opportunity to get it comprehensive evaluation.

Table 2. Classification of logistics costs in the economic literature on the general criteria: cost center, the phases of the logistics process, the major components of logistics processes

Author	Classification attributes		
	Cost centers	the phases of the logistics process	the major components of logistics processes
1	2	3	4
Moiseeva N. K. [3]		costs relating to the supply, in production, in the field of circulation	costs of transport, storage, warehousing cargo handling, reception and processing of orders
Edelshteyn, Yu.M. [9]		costs associated with the organization of material flows within the company, the cost is in the process of realization of production	
Krikavskiy, E. V. [10]		costs relating to the supply, in production, in sales	
Oklander, M. A. [11]			costs associated with material flow; storage costs; loss of profits as a result of unused capacity
Petrosyan B.D. [15]	transport division, purchasing, warehouse, production units, sales department	supply costs, production costs, sales costs	costs associated with material flow, the cost of information processes
Bushkov, A. Yu. [16]	the relevant departments according to the phases of the logistics process	procurement, production, sale	

Note: Source: [Owndevelopment]

In practical terms, under the applicable accounting system it may be difficult or impossible ... This raises a fundamental question: Is it necessary to have such a detailed and multidimensional structuring logistics costs? It seems that it depends primarily on their level and scale of the impact of both the costs of the company as a whole and on its financial results. If such an effect is noticeable, it is advisable as closely as possible to highlight specific types of costs in the most appropriate aspects, as well as the use of these aspects for analysis, planning and regulation. Just knowing the volume, structure and factors shaping the logistics costs, effectively cutting them «[7, p. 291, 297].

Sharing the view of these authors we believe that the classification of logistics costs must be subordinated to the purpose of their minimization and search of reserves of decrease in each specific logistic system. For the identification and registration of enterprise logistics costs in the accounting system, we propose the following classification, presented in Figure 1.

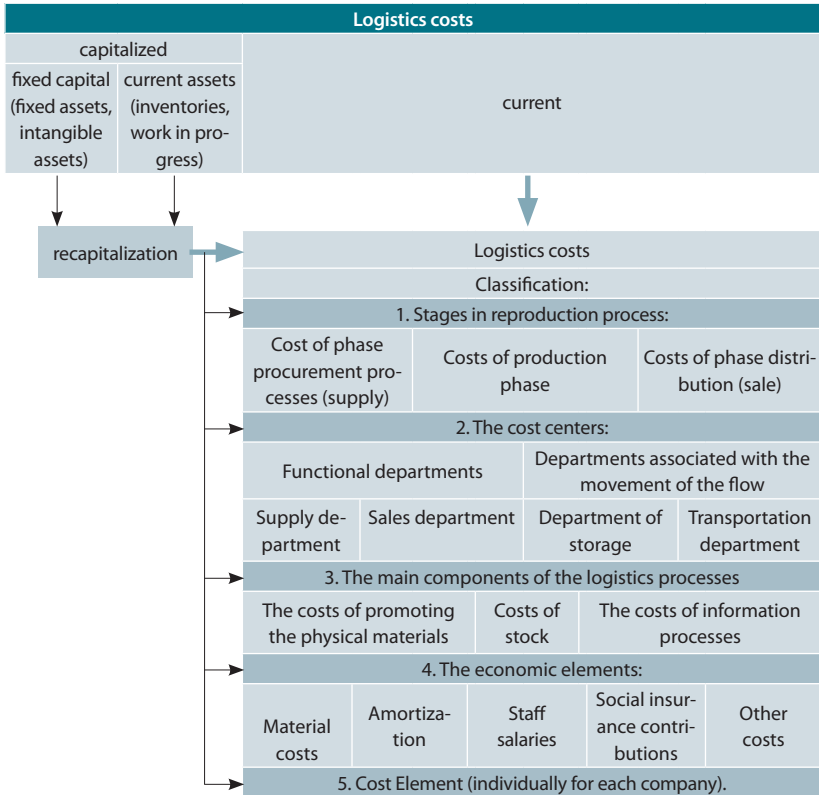


Figure 1. Interconnection and classification of logistics costs and logistics costs of the enterprise
Source: Own development [7, 10-16]

Dedicated classification criteria of logistics costs are the most generalized and versatile for use by industry. In the framework of a specific enterprise logistic system separate list of criteria for the classification of

logistics costs can be expanded depending on the degree of influence of various kinds of logistics costs on the final financial results of its activities.

CONCLUSION

The complexity and diversity of described problems determine the relevance of further research into the development of theoretical bases and methods of identification and registration of logistics costs in the accounting system, aimed at the presentation of management personnel of reliable data for decision-making to improve the competitiveness of domestic companies.

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