

PECULIARITIES OF ORGANIZATION OF ACCOUNTING AT LOGISTICS COMPANIES

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Abstract: This article is devoted to the consideration of the organization of accounting in logistics companies in reliance upon advanced foreign experience and domestic practice. In addition, the article studies international experience in the efficient organization of cost tracking in logistics companies. In addition, the article presents relevant conclusions and recommendations, which have been worked out by research findings.

Keywords: logistics, costs, accounting, reporting, revenue, profit margin

Introduction.

Researches conducted on on accounting in logistics companies have demonstrated that the key challenges in such companies are the grouping of costs, their correct composition, as well as the assessment of such costs in the formation of the prime-cost of works and services.

Cost tracking in economic entities, the coherent organization of the accounting process not only ensures the accuracy of the accounting process, but also results in the changes in the future, yield, profit margin, sustainability and many other indicators of the entire company. However, in practice, there are also unreasonable and difficult to manage, uncontrollable costs, which become one of the main and current problems of many economic entities. The entity will need to constantly improve the accounting of these costs, be cautious in organizing and maintaining these costs, and make effective management decisions with a comprehensive analysis of such costs in making decisions on the company future.

Reducing costs in economic entities results in constant measures aimed at optimization. Most importantly, these measures will not be profitable without a clear operating procedure, and expensess, as noted above, will affect the various economic performance indicators of companies and enterprises. Therefore, it is essential for economic entities to keep track of costs and constantly analyze them. Herein the main focus can be kept on accurate accounting and effective analysis by dividing costs into relevant components.

Literature review.

As part of our research, we will investigate the structure of costs, in particular, focusing on the structure of logistics expenses and peculiarities of accounting costs at logistics companies. In this process, it is crucially important that first we conduct a comprehensive research the essence of the costs in logistics area. When it comes to logistics costs, a variety of literary sources and researches of scholars are taken as a basis for the analysis. Various opinions and considerations on this can issue be found in many literature and research sources.

In particular, a scholar-economist L.B. Mirotin thinks that one of the shortcomings of the already existing classifications of logistics costs is the use of mixed signs of grouping them by cost items and economic elements. This results in double counting of a single transaction and not fully reflecting actual costs (Mirotin, 2013).

In the opinion of Ye.V. Melnikova, logistics costs are the costs of performing logistics operations; include distribution costs and part of production costs. Logistics costs are the costs of labor, material, financial and information resources, due to the performance of enterprises of their functions to fulfill consumer orders. In the classification of costs included in the basic prime-cost applied in local practice, separate components of logistics costs are taken into account in different accounts, which complicates the process of identification and accounting (Melnikova, 2013).

From the point of view of Melnikova, the logistics costs are reflected in the accounting records as follows (Table 1).

Table 1

Reflecting logistics costs in the accounting

Name of costs	Cost item	Accounts applied
Costs of purchasing materials and consumables	costs of materials purchase; costs of purchasing various components	«Materials»
Costs of goods and products transportation	costs of transportation of materials from suppliers; costs of transportation and storage of goods within the company; costs of loading and shipping products to customers	«Materials» «Primary production»; «Accounts for the prime-cost of goods, works and services sold»
Costs associated with the warehouse accounting	inventory maintenance costs; warehouse maintenance costs	«Materials» «Primary production»; «Accounts for the prime-cost of goods, works and services sold»
Costs associated with logistics system management	costs associated with the salaries of employees engaged in logistics activities; advertising, marketing and other expenses; costs associated with packing, packaging and other costs	«Materials» «Primary production»; «Accounts for the prime-cost of goods, works and services sold»
Costs associated with the loss	losses resulting from impairment and decrease in values; costs associated with the detection and repair of defects; warranty repair costs	«Auxiliary production»; «Other operating expenses»

It is clear from the data in the table that logistics costs are actually accounted for in different accounting objects by cost items. In this table, the figures of accounts proposed by Melnikova have been used, and we found it necessary to reveal a general essence. As each country has its own system of accounts, in our opinion, it would be more useful not to use accounts (Melnikova, 2013).

In general, the study has demonstrated, that even in companies with foreign investment, management reporting is combined with financial reporting, as the standard chart of accounts provides for the calculation of production costs and performance indicators.

Therefore, according to Melnikova, each country, including the author of the article, emphasizes the need to modernize the current accounting system in Kazakhstan in order to solve problems in terms of logistics functions.

According to Internet sources, accountants in Western countries estimate that up to 90% of their working time and resources are spent on compiling and maintaining management reports, while the rest, only about 10% are spent on financial reporting (8).

The fundamental difference between a management report and a financial report is that the financial report is intended for users of external data (primarily tax authorities) and the management report contains information for internal users (primarily the company itself and its managers).

Research Methodology

Proceeding from the aim and objectives of the research, such methods as dialectics, abstraction, comparative analysis, induction and deduction, logical thinking and observation have been widely applied in this article.

Analysis and Results

Researches have demonstrated that the list of items to be accounted for in international practice is much broader. However, in our country it is a bit difficult to keep track of them by cost items. Applying such a system requires a lot of efforts and time from accountants. However, as mentioned above, spending adequate time on cost accounting yields its positive effects. Unfortunately, our country is not an exception and despite the fact that more time is spent on the issuance of figures, preparation of financial statements, and calculation of costs is not carried out in details.

Problems related to ensuring the competitiveness of the company and its products, works and services in the supply of logistics company, effective regulation of logistics costs in the system play a key role in the distribution and grouping of logistics costs.

In logistics companies, in order to achieve results and provide the effective organization of cost accounting it is required to ensure the continuity of the process from delivery to receipt of products. At the same time, the enterprises and entities involved in the process must organize their activities in support of each other. Only then will cost efficiencies be achieved and profit margins are formed that are commensurate with the costs incurred.

Since logistics costs are mainly related to transportation, storage, delivery, transportation, these costs will be inextricably linked. Such costs are not normally included in the prime-cost of goods, works and services, and most of them are reflected in general production, general and recurring expenses.

Logistics costs can be accounted for using a variety of methods. In this regard, various opinions and considerations have been expressed by scholars. In this case, it is recommended to use the following methods, which are mainly applied in international practice:

1. Standard costing.
2. Direct costing.
3. Absorption costing.
4. ABC (activity-based costing).

Standard costing implies that all costs are calculated in quantitative and monetary units before serving customers. The advantages and disadvantages of this method of cost accounting are described by the economist E.V. Rogatenyuk:

- formation of a database required for cost analysis and control, accuracy in reflecting deviations from the plan in the production process of costs;

- minimization of accounting activities related to the calculation of costs, provision of managers with the information about the expected costs of production in due time (Rogatenyuk, 2012).

As mentioned above, the advantages of the method are justified by the formation of the adequate information for cost analysis. Definitely, timely and adequate information leads results in the the accounting and analysis of any economic indicators of the company, as well as effective decision-making.

In addition, the above-mentioned scholar points out the following shortcomings of the method:

application of recurring expenses;

dependence on the composition and quality of the regulatory framework;

impossibility of setting standards for certain types of costs.

The use of **Direct costing** method in logistics companies has its advantages and disadvantages as well. Variable production costs are included in the cost of goods sold and final inventory estimates, and fixed costs are fully calculated based on the financial results of operations. It is based on the concept of marginal revenue, which is the income that a company receives after covering all variable costs, as well as classifying costs as variable and fixed.

As a result of research in this area, the following advantages and disadvantages are highlighted (table 2).

Table 2

Advantages and disadvantages of accounting for logistics costs in the Direct costing method (Rogatenyuk, 2012)

Advantages	Disadvantages
<p>it is possible to obtain the required information from regular financial statements without creating additional accounting procedures;</p> <p>the profit of the period does not depend on the constant additional costs when changing the inventory balance;</p> <p>the labor intensity of the distribution of additional costs will be reduced, it will be possible to determine the contribution of each type of product to the formation of the company's profit;</p> <p>enables to optimize the production program in conjunction with a non-standard calculation method, reasonably determine the price of new products, justify the need or rejection of new orders;</p> <p>enables to choose between producing or purchasing the product</p>	<p>many types of costs cannot be classified as always variable of fixed;</p> <p>insignificant attention to allowable costs;</p> <p>infringing the financial result due to a decrease or increase in the value of a previously manufactured product;</p> <p>creates the illusion of the profitability of technologically complex projects that require significant investments</p>

In the **Absorption costing** method, all direct production costs and all indirect costs are added to the product prime-cost. Costs are implemented on the basis of cost classification by the method of comparison of costs (direct and indirect). Direct costs are economically equivalent to a particular product. The total amount of indirect costs is distributed in proportion to the selected distribution factors for the product. The choice of

distribution coefficients depends on the characteristics of the industry, the size of the company, its organizational structure, product range and other factors. The higher the direct costs in the composition of the company costs, the more accurate the cost of certain types of products, the more effective application of this method is achieved.

Definitely, in reliance upon the study of this method, the authors have admitted its advantages and disadvantages. The main advantage of the absorption costing method is that it rightly recognizes the importance of including fixed production costs in product cost determination and in determining a suitable pricing policy. Supporters of absorption costing argue that fixed production costs are just as much used in the production of goods and services as the variable production costs.

The disadvantage of the cost absorption method is the possibility of choosing the wrong base for the distribution of indirect costs, which causes a violation of the fair value of the cost price and the establishment of unreasonable prices.

Therefore, it is important to choose methods in accounting and apply them correctly, because each method has its advantages and disadvantages, and their application requires in-depth study. Herewith the activities and peculiarities of the company are taken into account.

One of the next methods applied is the **ABC (activity based costing)** method, which is slightly more widely used than other methods.

Below we will consider in detail the possibility of using the ABC system to account for logistics costs. The ABC method was developed in the United States and became well-known due to the research papers by G. Bere, R. Kuper, T. Johnson, R. Known (since the late 1980s). This method is used by about 10% of large companies, including the companies located in United States, the United Kingdom, continental Europe, and Australia. It is used in Japan as well. This method is used to a lesser extent in local businesses.

In the opinion of G. Sheshukova, V. V. Lenina, K.A. Vorojtsova, the difference between functional systems and traditional systems is that they have more cost centers of different distribution bases. An increase in the number of cost centers results in an increase in the accuracy of measuring indirect costs associated with targeted costs. Traditional systems are too simplified, however, ABC systems are too complex, but the level of accuracy and cost estimation is much higher (Sheshukova et al., 2014).

J.Krajnc, K.Logozar, B.Korosec suppose, that increased logistics costs as hidden additional costs in production companies. Management of material flows through the ABC system can be significantly improved compared to the traditional cost accounting method

In 2012 the ABC method was used in supply chain environment. A conceptual framework has been developed that is able to identify opportunities for level savings (Schulze, 2012).

Thus, reviewing the current scientific publications on the application of the ABC method of logistics cost accounting, it is possible to make a conclusion that, despite methodological limitations, this method is still a powerful tool for cost accounting with high potential for implementation and contributes to making more efficient logistics decisions. In addition to net service costs, ABC also pr overall average operating costs. The average or unit costs of the activity can then be used to assess the cost-effectiveness of basic manufacturing services.

Finally, and most importantly, instead of describing the ABC statistical organization, the operating structure relies on dynamic, activity-oriented modeling, the developed cost model can be adjusted in compliance with different companies (Bokor, 2014).

The main advantage of the ABC method is that the cost of the product is calculated more accurately compared to the traditional prime-cost allocation method, which results in

making more reasonable and accurate pricing decisions. This advantage is provided by the focus on the main production and technological functions, as well as selection of indicators that fully describe them.

To summarize the studies and opinions of scholars in this regard, it is possible to make a conclusion that this system also has its own advantages and disadvantages (table 3).

Table 3

Advantages and disadvantages of accounting for logistics costs using the ABC costing method (Rogatenyuk, 2012)

ABC (activity based costing) system	
Accounting for costs incurred on transactions (accounting for functional expenses). Transactions are considered as the main objects of accounting and calculation to calculate the production prime-cost. The idea is to gradually allocate indirect costs to the product prime-cost. The ABC method assumes that any costs are incurred as a result of a particular activity and that each product type corresponds to a specific type of activity.	
Advantages	Disadvantages
a significant increase in the basis for comparing additional costs to a specific product, a more accurate prime-cost; creates a wide range of opportunities to ensure that the data received are interrelated with the cost formation process, improving its performance enables to evaluate its performance in terms of quality	requires significant changes in the accounting system and improvement of information support systems, which results in the increased management costs; the use of the system is effective under certain conditions: direct costs make up the bulk of the costs, the enterprise must manufacture 1-2 types of products at approximately the same cost

In a competitive market environment, it is becoming crucially important that transaction costs make up a large portion of value added. With the increase in the efficiency of basic and service operations, the products and services of enterprises remain competitive and attractive to consumers.

From the point of view of T.G.Sheshukova, V.V.Lenina, K.A.Vorojtsova, although the ABC accounting system is not yet widely used in Kazakhstan, despite the simplicity of the main idea of this method, “there are difficulties in implementing a cost accounting system to manage actions rather than costs. In practice, this is a very complex, expensive and time-consuming task. In addition, many executives and managers of companies and business entities do not sufficiently understand the essence and advantages of this method. The cost of implementing the ABC-system is expressed in the selection of employees with appropriate knowledge, recruitment of such employees, wages and some material costs (work materials, consumables, etc.). In general, such costs should be significantly less than the efficiency obtained.

Herewith, introduction of the ABC method will help to make significant savings not only by reducing management costs, but also by extending this system to all types of indirect costs incurred by the company.

That is, it is necessary to use the tools that are most beneficial at a given time and place and that respond quickly to changes in the environment” (Sheshukova, 2014).

There are several problems with the introduction of the ABC method in Kazakhstan:

- employees are not interested in determining the cost of operations performed and the scope of activities;

- companies and businesses often do not possess competent and current descriptions (models) of business processes that serve as the basis for the ABC implementation.
- complications arise during the cost allocation phase by category and responsibility centers (9).

Cost accounting using the ABC method is very comprehensive for businesses and professionals, as well as requires the analysis of large amounts of data, so it cannot be applied without full or partial automation. For this purpose it is recommended to use any software products.

However, there are a number of features that are specific to an ABC automation project that need to be considered both when selecting a system and when executing an implementation project.

There are five stages in building a management system based on ABC and its automation:

- in stage 1, the cost centers associated with specific processes as the drivers are identified, and their ratio is distributed to these cost centers;
- in stage 2, a system design is developed and it is determined how to automate the process;
- in stage 3, the structure of the “analytical cube” software is developed in order to record and analyze the data in the required sections, in which the data are presented, for example, in the following dimensions: product code, date, cost center, cost item and quantity. Then, the necessary revision of the standard functional capabilities of the system is performed with the account of the cost allocation requirements of the company. Analyzing data at the intersection of analytical measurements can provide complete and reliable information about a company’s cost composition.
- in stage 4, the solution methodology is characterized in the job descriptions, the system users are trained;
- in stage 5, the system is switched to test mode.

Accounting and analytical data on costs in the company are generated by the system of accounting and economic analysis. The cost accounting system can be represented, on the one hand, as a systematic system for collecting, recording and summarizing cost information, and, on the other hand, as a set of types of accounting available in the company. The data collected in the accounting system represents a database of economic analysis.

Timely and complete analysis of the cost data recorded in the accounting documents ensures that the necessary decisions are made to achieve better business results. However, economic analysis cannot work in isolation from the accounting system. The effectiveness of its output depends on the quality of the incoming accounting data.

Conclusion.

Thus, under current conditions, it becomes necessary to combine management reporting with financial reporting, as in foreign companies or companies with foreign capital. Determination, analysis and accounting of logistics costs should be systematic and coordinated.

The logistics service should be engaged in the targeted accounting of logistics costs, their calculation, monitoring the dynamics, analysis of the cost composition, as well as finding the ways to optimize and reduce these costs.

However, with the increasing complexity of production, diversification, changes in the cost composition, it is required to prefer such a system of accounting and calculation, which gives the most objective and realistic results under current conditions. Costs of a

company will be well-handled and it will be possible to find the most efficient ways to reduce them.

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