

Економіка та управління підприємствами

UDC 338.585

Ostrianko Mariia

*Student of Faculty of Management and Marketing
National Technical University of Ukraine
«Igor Sikorsky Kyiv Polytechnic Institute»*

Krush Petro

*PhD in Economics,
Head of Department of Economics and Entrepreneurship
National Technical University of Ukraine
«Igor Sikorsky Kyiv Polytechnic Institute»*

FORMATION OF COSTS AT THE ENTERPRISES OF CONSTRUCTION MATERIALS

***Summary.** This article is devoted to the analysis of the process of formation of costs at industrial enterprises. Particular emphasis was made on the analysis of the process of cost formation in the enterprises that operate in the industry of building materials production. The article covered the concept of cost management process of an industrial enterprise and defined the importance of this process. In addition, the article was devoted to finding, analyzing and defining traditional methods of cost formation in industrial enterprises. Among the traditional methods were identified such basic ones as standard-cost method,*

Job order cost system, process cost system and method based on production area. In addition to traditional methods, modern methods of managing the process of cost formation at producing enterprises have been identified. The article defines such modern costing methods as ABC method, direct-costing, standard-cost, target-costing and kaizen-costing methods. The

purpose of the article was also to determine the feasibility of using each of the methods, both modern and traditional, in enterprises, depending on the specifics of the industry in which they operate. Also, the writing of the article was focused on identifying the characteristics of the industry of building materials production, as well as the impact of these features on the method of cost formation in the enterprises of the industry. One of the goals of this article was to identify the most cost-effective methods of cost management in the industry of construction materials and to show the ability of its combination in order to achieve better results, taking into account the specific features of the industry. At the end of the article there were offered some recommendations of more efficient usage of cost formation methods at enterprises operating in the field of construction materials production in Ukraine.

Key words: *costs, features of the industry, cost management, methods of costs` formation, industry of building materials.*

Formulation of the problem. The amount of enterprise`s costs directly influences the process of its profit formation. Profit is the result of company`s financial and economic activity. Therefore, cost management and process of cost formation, as well as its improvement, play an important role in the aspect of enterprise`s profit management, and in the structure of financial management in general. Especially it is important for developing and rather promising industry today – industry of construction materials, according to increasing the number of constructions of residential buildings, intensification of construction of roads in Ukraine over the last 5 years as well. All this makes the chosen topic of research relevant in terms of solving the problems of entrepreneurship development in Ukraine.

Analysis of recent researches and publications. Considerable contribution to the research and analysis of the methods of cost management at the enterprises of the construction materials industry made such Ukrainian

scientists-economists as Adamenko T. [1], Manukhin G. [2], Nezhentseva O. [3], Pogorelov Y. [2], Kulikovska A [4].

The purpose of the study is to analyze the methods of cost management and their application in the process of cost formation of enterprises operating in the field of building materials production.

Objectives of the article:

- to define the concept of "cost management";
- to determine the characteristic features of the building materials industry in Ukraine;
- to analyze traditional and modern methods of cost formation at industrial enterprises;
- to determine the methods of cost formation at enterprises of building materials production.

Exposition of results. Industrial enterprises of Ukraine have problems in a well-grounded and balanced cost management process. Thus, in comparison with foreign enterprises, the level of production costs of producing enterprises in Ukraine occupies bigger share in sales revenues indicator. This is especially true for enterprises specializing in the production of building materials, whose activity is characterized by high material capacity. These factors are negatively reflected on the level of competitiveness of Ukrainian products.

Cost management in industrial enterprises includes such basic elements as cost planning, organization of cost management, coordination and regulation of costs, stimulation and motivation of economical usage of resources and cost control. In other words, cost management is a dynamic process that includes all management actions in order to achieve a high economic result of the enterprise in the end [5, p. 108].

Cost formation of enterprise depends on many factors, such as the price of material resources, sales figures, tax system etc. Particular attention should be

paid to the industry factor, since the principles of economic activity can vary significantly depending on the industry in which the enterprise operates.

Enterprises specializing in the production of construction materials are characterized by a number of features. These features include:

- large amounts of material costs that can sometimes reach the level up to 80% of the cost of production;
- seasonality of production, which is related to the seasonal nature of construction work and the large volumes of work in progress;
- dependence on the volume of construction work;
- significant impact on the results of capital construction;
- proximity to raw material bases and more.

Taking it into account, defining the right, scientifically based method for cost management of construction materials manufacturing enterprises will allow to make a cost of production of the enterprise comparable to the production results, and will also reduce the amount of economic losses.

The main traditional methods (systems) of cost formation at enterprises include:

- standard-cost method – applied at enterprises where it is possible to determine production cost standards, where operations are constantly repeated;
- job order cost system – costs are calculated on the order basis;
- process cost system – costing is carried out within the unit, stage of production or process;
- method based on production area – the formation and calculation of costs occurs at each redistribution, which means the stages of production, on which technological process is divided [6, p. 40-41].

The usage of described methods depends on features of each production process at the enterprise, the industry in which it operates etc. It is recommended to use the standard-cost method in industrial enterprises with mass production of

one or more types of products. For example, in the field of mechanical engineering, leather, furniture industry, etc.

Job order cost system applicable in the fields of construction, shipbuilding, aircraft design and more.

Method of cost formation based on production area is preferable at the enterprises of the chemical and textile industry, and also at the oil refining enterprises [7].

If we talk about industrial enterprises that specialize in the production of construction materials, the most appropriate method or system of cost formation, according to features of this industry, is the process cost system. In this case, every separate process becomes an object of cost accounting and finished product becomes an object of calculation. It is also possible to use a standard-cost method of cost formation in this type of enterprise. In this case, during the process of the planned cost calculation, the company should take into account not only the deviations that were identified during the reporting period, but also company should to lay down the risks associated with the climate conditions.

One of the problems that appears in the process of cost management at industrial enterprises in Ukraine is the neglect of foreign experience in this sphere. Although the construction industry and industry of building materials are well developed in Ukraine, it is important to say, that products of the Ukrainian manufacturer do not always meet international standards. That is why it is worth to pay attention to the foreign practice of cost management at enterprises in industry of construction materials. Therefore, it is recommended to add and apply the latest foreign methods in addition to traditional methods of cost formation in industrial enterprises in Ukraine.

There are such modern methods of cost formation at industrial enterprises: "direct-costing", "standard-cost", ABC method, "target-costing" and "kaizen-costing".

Brief description of modern methods of cost management at the enterprises are shown in table 1.

Table 1

Characteristics of modern cost management methods

Method's name	Brief description
Direct-costing	The principle is that fixed overhead costs are not included in the cost of production, but are directly attributed to those income and expenses that occurred in that period. Applicable if costs are divided into fixed and variable
Standard-cost	For each type of costs (material, labor, financial) its reasonable standard per unit of output is fixed. Application is possible at enterprises where system of standards, such as norms and regulations exists
ABC method	Considers the enterprise in the form of processes and work operations, the cost of which is the cost of the enterprise as a whole or cost of certain types of products. It is possible when the company clearly identifies the activities and operations that accompany them
Target-costing	Based on fact that the enterprise on the basis of the set value of the sale price and the desired value of profit, sets the target cost. All units of the enterprise should provide the given cost. It is a strategic cost management tool. It is possible with constant control of the level of expenses
Kaizen-costing	Is opposite to the "target-costing" method. It is based on achieving not a fixed level of costs, but on the contrary, a constant and comprehensive reduction of costs, instead of achieving its fixed amount. Helps to ensure the target cost in the production process. It is generally used in operational planning

Source: made by author with information from [8, p. 131-134]

The usage of modern methods of cost formation at enterprises in the field of production of construction materials is applicable according to dynamics to a constant increase of indirect costs, automated production processes, rising costs of maintenance of production activity in this industry as well. For enterprises that operate in industry of building materials it is possible to apply such modern methods of cost formation, such as ABC method, taking into account that the production process at such enterprises is divided into sub-processes [9].

It is also necessary to pay attention to complex application and mixed costing methods of enterprises both in the field of production of building materials and in industrial enterprises in general. The combination of traditional

process cost system or standard-cost method with the modern ABC method in the cost formation of the enterprise in the field of production of building materials will allow to achieve high economic results [6].

Conclusions. Thus, the basis for improving the cost management process is the continuous search, identification and development of reserves of reducing the costs of industrial enterprise's resources, its planning and regulation, operational cost accounting and their classification analysis. There is also important to stimulate saving of resources and reducing of costs, which aims to improve the efficiency of financial and economic activity of the enterprise in the field of production of building materials.

As it was mentioned earlier, the production of construction materials is related to high material costs and the need for its constant accounting and control. For companies of this industry, it is worth paying attention to the traditional process cost system or standard-cost method of cost formation, as well as to consider the possibility of combining it with the modern foreign ABC method to achieve better results.

Taking into account the constant development of the industry and the emergence of new materials, businesses in the industry should respond on all of these changes quickly. In addition, it is worth to pay attention to the continuous improvement of technological processes of production of construction materials and to apply new effective methods of formation and cost accounting of the enterprise, which will allow to produce competitive products.

References

1. Adamenko T. M. Upravlinnja zatratamy pidpryjemstva: syntezy funkcionaljnogho ta procesno-orijentovanogho pidkhodiv / Adamenko Tetjana. Poltava: Naukovyj visnyk Poltavskogho universytetu ekonomiky i torghivli, 2011. 205 s.

2. Upravlinnja zatratamy pidprijemstva: monohrafija; za red. Gh. V. Kozachenko, Ju. S. Poghorelov, L. Ju. Khlapjonov, Gh. A. Makukhin. Kyjiv: Libra. 2007. 320 s.
3. Njezhenceva O. K. Zastosuvannja strateghichnogho pidkhodu upravlinnja vytratamy pidprijemstva / O. K. Njezhenceva. Zaporizhzhja. 2007. 320 s.
4. Kulikovsjka A. Ju. Osoblyvosti upravlinsjkogho obliku vytrat budiveljnogho vyrobnyctva // Arkhiv III Mizhnarodnoji naukovoji internet-konferenciji. Data onovlennja: 14.03.2020. URL: <http://intkonf.org> (data zvernennja: 14.03.2020)
5. Baskakova O. Ekonomyka predprijatyja (orghanyzacyy) / Baskakova O., Sejko L. Moskva: Dashkov y K, 2017. 372 s.
6. Marchenko V. M. Upravlinnja vytratamy: konspekt lekcij / Valentyna Marchenko Kyjiv: Vydavnycho-polighrafichnyj kompleks «Politekhnika». 2015. 131 s.
7. Myermanova S. Tradycyonne metody ucheta zatrat v systeme upravlencheskogho ucheta // Zhurnal «Ekonomyka, upravlenye y uchet na predprijatyjy». URL: <https://cyberleninka.ru/article/n/traditsionnye-metody-ucheta-zatrat> (data zvernennja: 14.03.2020).
8. Jakupov Y. Osnovnye pryncypy y metody upravlenija zatratamy na proyzvodstvo produkcyy / Jakupov Y. Cheljabynsk: Dva komsomoljca. 2012. 134 s.
9. Tolmacheva O., Beznoshhenko M. Osobennosty orghanyzacyy y postroenyja systemy ucheta zatrat na predprijatyjakh, proyzvodjashhykh stroyteljnye materyaly // Zhurnal «Ekonomyka y byznes. Teoryja y praktyka». URL: <https://cyberleninka.ru/article/n/osobennosti-organizatsii-i-postroeniya-sistemy-ucheta-zatrat-na-predpriyatiyah-proizvodyaschih-stroitelnye-materialy> (data zvernennja: 16.03.2020).

Література

1. Адаменко Т. М. Управління затратами підприємства: синтез функціонального та процесно-орієнтованого підходів / Адаменко Тетяна. Полтава: Науковий вісник Полтавського університету економіки і торгівлі. 2011. 205 с.
2. Управління затратами підприємства: монографія; за ред. Г. В. Козаченко, Ю. С. Погорелов, Л. Ю. Хлапьянов, Г. А. Макухін. Київ: Лібра. 2007. 320 с.
3. Неженцева О. К. Застосування стратегічного підходу управління витратами підприємства / О. К. Неженцева. Запоріжжя. 2007. 320 с.
4. Куліковська А. Ю. Особливості управлінського обліку витрат будівельного виробництва // Архів III Міжнародної наукової інтернет-конференції. URL: <http://intkonf.org> (дата звернення: 14.03.2020)
5. Баскакова О. Экономика предприятия (организации) / Баскакова О., Сейко Л. Москва: Дашков и К. 2017. 372 с.
6. Марченко В. М. Управління витратами: конспект лекцій / Валентина Марченко Київ: Видавничо-поліграфічний комплекс «Політехніка», 2015. 131 с.
7. Миерманова С. Традиционные методы учета затрат в системе управленческого учета // Журнал «Экономика, управление и учет на предприятии». URL: <https://cyberleninka.ru/article/n/traditsionnye-metody-ucheta-zatrat-v-sisteme-upravlencheskogo-ucheta/viewer> (дата звернення: 14.03.2020).
8. Якупов И. Основные принципы и методы управления затратами на производство продукции / Якупов И. Челябинск: Два комсомольца. 2012. С. 131-134.
9. Толмачева О., Безнощенко М. Особенности организации и построения системы учета затрат на предприятиях, производящих

строительные материалы // Журнал «Экономика и бизнес. Теория и практика». Дата оновлення: 14.03.2020. URL: <https://cyberleninka.ru/article/n/osobennosti-organizatsii-i-postroeniya-sistemy-ucheta-zatrat-na-predpriyatiyah-proizvodyaschih-stroitelnye-materialy> (дата звернення: 16.03.2020).