

## **MODELS TO DETERMINE ACCOUNTING OF EXPENSES AND PRIME COST OF PRODUCTS**

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**Abstract:** *This article is devoted to the consideration of expenses on the manufactured products from the scientific point of view. Modern models of determining prime cost of products have been analyzed and recommendations to apply these models at enterprises of the light industry have been developed.*

**Key words.** *Accounting of expenses, prime cost of products, International Financial Reporting Standards (IFRS), prime cost reduction.*

**Introduction.** Establishing accounting in our country on the basis of International Financial Reporting Standards requires revision of methodological issues of the accounting. The composition and accounting of production costs are considered to be a significant issue among methodological aspects of management accounting because the formation of the prime cost of the product is connected with the classification and composition of production costs. One of the requirements of economic reforms in our country is the reduction of production prime costs. In this regard the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan as of December 29, 2015 № 374 “On Additional Measures to Reduce Production Costs and Lower Prime Costs of Products” was adopted [4]. According to this resolution, in 2016 it was planned to reduce production costs and prime costs of products by average 10%. This resolution was also aimed at reduction of production costs and prime costs of products for large industrial enterprises. In particular, at National Holding Company “Uzbekneftegaz” – by 13,7 per cent; at

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State JSC “Uzbekenergo” –by 13,8 per cent; at JSC “Uzavtosanoat” – by 6,9 per cent; at State JSC “Uzbekengilsanoat” – by 10,0 per cent and etc. With the aim of undertaking certain measures intended to reduction of production costs and prime costs of products it will be necessary to re-consider the composition of costs. It should be noted that the cost reduction should be carried out without making a negative impact on the product quality. Thus costs as expenses are considered to be one of the main indicators characterizing the financial condition of the business entities and generating profits.

At the same time, “expense” is an object of accounting. Article 7 of the Law of the Republic of Uzbekistan “On Accounting” (as of April 13, 2016) is called “Objects of Accounting”, where the object is recognized as follows: “Assets, liabilities, equity, reserves, revenues, expenses, profits, losses, and economic operations related to their movements are objects of accounting. The objects of accounting are reflected in synthetic and analytical accounts” (Law, 2016). Costs of the enterprise are firstly involved in determining its financial results, and, secondly, in determining the taxable base. Participation in the definition of the taxable base reflects the concept of tax expenses. Study of scientific literary sources and regulatory documents illustrates that they provide different definitions to the concept of “costs”.

**Literature review.** B.A.Khasanov and A.A.Khoshimov give the following definition to the term “cost”: “Costs are monetary expressions of expenditures related to the production of goods, sale of products, accomplishment of works and rendering services” (Khasanov, 2011). By the opinion of O.N.Volkova: “Costs are the value of resources that businesses use in their operations” (Volkova, 2006). According to the Regulation “On the order of formulating the composition of production and sale costs of products (works, services) and financial results” approved by the Resolution of the Cabinet of Ministers as of February 5, 1999, № 54, costs are divided into expenditures added to the prime cost and recurrent expenses (Regulation, 1999). The main reason for it is the following:

- formation of complete and accurate information in accounting books on all expenses incurred by the business entity during manufacture and sale of products (works, services) for determination of profitability and market competitiveness;

- correct determination of the taxable base.

According to the Regulation all costs are classified into the following groups:

- costs included in the production prime cost of products:

a) direct and indirect material costs;

b) direct and indirect labour costs;

c) other direct and indirect costs, namely, incurred costs possessing production peculiarities;

- costs which are not included in the production prime cost, but received from the main activity as well as **recurrent expenses**:

a) sale costs;

b) management expenses (administrative expenses);

c) other operational expenses and losses.

Costs of production (works, services) are included in cost of production directly connected to production (works, services), production technology and the costs associated with its organization.

Expenses on production technology and the costs associated with its organization are included in the prime cost of products (works, services) directly connected to products (works, services). They include: direct and indirect material costs, direct and indirect labor costs, other direct and indirect costs including incurred expenses possessing production peculiarities.

Taking into account their economic essence the costs generating the prime cost of the products (works, services) are classified into the following groups:

- production material costs;

- labour costs possessing production peculiarities;

- social insurance deductions related to the production;

- fixed assets and amortization of intangible assets having production essence;

- other expenses which have a production essence.

International Financial Reporting Standards (IFRS) have no separate standard for accounting and distribution of costs. Therefore these costs are accounted in several international accounting standards such as: 2-“Inventories”, 16- “Fixed assets”, 19-“Revenues of employees”. According to IFRS -“Inventories” while accounting production costs and calculating prime cost of products costs are divided into two groups: production costs and period expenses<sup>1</sup>. According to this

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<sup>1</sup> IFRS 2- “*Inventories*”

standard, accounting and recognition of costs are not based on initial documents, but based on expert accountancy in terms of economic benefits. In our country accounting and recognition of costs are based on properly formalized documents.

According to IFRS - “Inventories”, cost of inventories are considered all costs incurred in bringing the inventories to their present location and condition, including the costs of purchase and conversion. Costs of purchase of inventories comprise the purchase price (less trade discounts, rebates and similar items), irrecoverable taxes, and transport, handling and other costs directly attributable to their acquisition. Costs of conversion include costs directly related to the units of production, such as direct labour and systematically allocated fixed and variable production overheads incurred in producing finished goods.

This standard requires that those assets that are considered inventory should be recorded at the lower of cost or net realisable value. Cost not only includes the purchase cost but also the conversion costs, which are the costs involved in bringing inventory to its present condition and location, such as direct labour. IAS 2 also allows for the capitalisation of variable overheads and fixed overheads so long as the fixed overheads are allocated on a systematic basis and in relation to usual output levels. Where output is lower than expected the resultant excessive overhead should be considered an expense and not capitalised but when output is considerably high the fixed overhead allocated to each unit must be reduced so as not to overvalue the inventory.

According to Article 141 of the Tax Code of the Republic of Uzbekistan “Expenses grouping” Expenses of the taxpayer are well-founded and documented expenses, and in cases provided for by this Code, losses incurred in accordance with the legislation and (or) the accounting policy of the taxpayer. The taxpayer’s expenses are deductible in the tax period in which they are actually incurred. If the same expenses are provided for in several items of expenditure, then in the calculation of taxable profits these expenses are deducted only once.

The taxpayer’s expenses are subdivided into deductible and non-deductible.

The deductible expenses are:

- 1) material expenses in accordance with Article 142 of this Code;
- 2) expenses for labour payment in accordance with Article 143 of this Code;

- 3) expenses for depreciation in accordance with Article 144 of this Code;
- 4) other expenses in accordance with Article 145 of this Code (Tax Code, 2017).

On February 5, 1999 the Cabinet of Ministers of the Republic of Uzbekistan by the Resolution №54 adopted the Regulation “On the structure of expenses for manufacturing and sale of products (works, services) and formulation of financial results”. According to this Regulation the term “Periodic expenses” imply the costs which are not directly connected with the production process such as administrative expenses, expenses for sale and expenses of the general economic essence”(Regulation, 1999).

The amendments made in the Tax Code of the Republic of Uzbekistan required introducing the amendments into the Regulation “On the structure of expenses for manufacturing and sale of products (works, services) and formulation of financial results”. The fact that necessary amendments have been made in this Regulation in 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, and 2015, there appeared the necessity to adopt this Regulation in the new edition. In turn, this will bring the accounting of costs closer to international standards and lead to the correct cost determination of the products and to the accurate financial results. The main purpose of the cost accounting is to identify and reflect actual production costs that are required to manage the costs in accordance with a large number of account areas and brands. In the opinion of V.F. Paliy production costs represent the object of accounting and with the aim of determining prime cost production costs are grouped according to various criteria (Paliy, 2010). With the regard of significance of the managerial accounting of costs we will consider the prime cost and the ways of its determination. The concept of prime cost was differently considered at scientific papers of various economists - scientists who have presented different definitions to this concept.

For example, B.A. Khasanov and A.A. Khoshimov gave the following definition to the term “prime cost”. According to their opinion prime cost is the consolidation of all expenses made directly on the cost of the product. (Khasanov, 2011). From the point of view of O.N. Volkova “The term “prime cost” refers to the direct costs of manufacturing an item. It is calculated by adding the cost of raw materials to the cost of labor directly associated with the production process. Calculating a product’s prime cost is an important part of business finance because it

can be used to determine the item's minimum sales price. If the sales price does not exceed the prime cost, then the business loses money on each unit produced” (Volkova, 2006).

According to Article 22 of the Tax Code of the Republic of Uzbekistan, prime cost - the valuation of material resources, fixed assets, labor resources used in the production of products, the performance of work, the provision of services, as well as other types of costs necessary for the process of production of goods, performance of work, provision of services. The cost price is determined in accordance with the legislation on accounting”(Code, 2017).

R.I. Sleznova and A.F. Ionova defined the prime-cost as it follows: “The prime cost of products, works and services are monetary expression of all resources spent in the process of production and expenses made on maintaining production conditions and their improvements”(Sleznova, 2001). In our opinion, the prime cost concept cannot be interpreted in this way because expenses on the maintaining production conditions are not suitable for accounting methodology.

A.Alikulov believes that: “The prime cost of product is the direct production costs spent on the product manufacturing and the monetary expression of all expenses on the manufacturing of this product” (Alikulov, 2012).

**Discussion.** Summarizing the above-stated definitions of the prime cost category we can make the following conclusion: Prime cost is an economic category which represents the amount of costs for all resources consumed for production and the sum of total cost of production.

We have acknowledged the nature of the prime cost category and we will discuss the models of its calculation. There are several models for determining prime cost in the managerial accounting throughout the world such as normative, “Standard cost”, “Direct costing” “JIT”(Just in Time), ABC (“Activity-Based Costing”), “Absorption Costing” and others. In foreign countries under current conditions the processes of accepting management decisions which have strategic and tactical peculiarities rely on company’s expenses and financial results. Thus “Standard cost” accounting system is considered an efficient tool to manage company’s expenses.

“Standard cost” accounting uses ratios called efficiencies that compare the labor and materials actually used to produce a good with those that the same goods would have required under “standard” conditions. Standard cost accounting can hurt managers, workers, and firms in several ways. For example, a policy decision to increase inventory can harm a manufacturing manager’s performance evaluation. Increasing inventory requires increased production, which means that processes must operate at higher rates. When (not if) something goes wrong, the process takes longer and uses more than the standard labor time. The manager appears responsible for the excess even though he has no control over the production requirement or the problem.

“Standard cost” composition comprises the following points:

- fixed assets;
- labour cost of workers involved in the main production;
- production distributed expenses (labour cost of assistants, supplementary materials, expenses on rent, depreciation cost, etc.);
- sale costs (expenses on sales of products).

“Direct costing” system is widely used in foreign developed countries. In Germany and Australia this method is called “accounting of partial expenses”. In Great Britain this method is called “marginal accounting. In Uzbekistan this method implies “limited, not completed or reduced prime cost accounting”. The use of this model, in turn, requires division into direct and indirect, main and additional, permanent and variable costs and solution of managerial strategic issues on their basis. The direct costing method is a practical tool in which the cost calculation is used for making decisions aimed at production and sales planning. This concerns direct costing (of materials and labour) that quickly provide an insight so that a cost calculation or cost indication can be made. This direct calculation of direct costing method can be useful for the management of an organization when decisions have to be made with respect to cost control.

Organization of managerial accounting in compliance with the “JIT” system provides an efficient effect. The “JIT (Just in Time)” system was first applied in Japan in “Toyota” company in the 70-th of the XX century and is being used now. At the same time, this system is currently being successfully used in many industrialized countries of the world. An important feature of the “JIT” system is the ability to refuse the production of large quantities of products instead of

continuous production, production from the date of order receipt. “Just-in-time” (JIT) is an inventory strategy companies employ to increase efficiency and decrease waste by receiving goods only as they are needed in the production process, thereby reducing inventory costs. This method requires producers to forecast demand accurately.

Activity-Based Costing (ABC) is an accounting method that identifies the activities that a firm performs and then assigns indirect costs to products. An activity-based costing (ABC) system recognizes the relationship between costs, activities and products, and through this relationship, it assigns indirect costs to products less arbitrarily than traditional methods. Like “Direct costing” method

Activity-Based Costing considers fixed costing and variable costing, but the major attention is paid to the types of activities and functional services. This system is widely applied in the countries with advanced economies like Europe and America (Khasanov, 2011).

Absorption costing is a managerial accounting cost method of expensing all costs associated with manufacturing a particular product and is required for generally accepted accounting principles (GAAP) external reporting. Some of the direct costs associated with manufacturing a product include wages for workers physically manufacturing a product, the raw materials used in producing a product, and all of the overhead costs, such as all utility costs, used in producing a good. Absorption costing includes anything that is a direct cost in producing a good as the cost base (Lojkina, 2015).

Above-considered methods used in managerial accounting are demonstrated in Table 1 with the account of their essence. On the basis of the research conducted by CIMA-(The Chartered Institute of Management Accountants) it should be noted that the most widely used methods for calculating prime cost of organizing managerial accounting in foreign practice are the followings: expenses distribution of Overhead allocation, Variance analysis as well as Standard costing and Full (absorption) costing (CIMA, 2009).

**Analysis.** With the account of practical data, the technique of calculating prime cost at garment factory with the application of a simple method of determining prime cost, Direct-Costing method and ABC “Activity Based Costing” method (Table 1)



**Table 1****Calculations of production costs with the application of complete calculation method**

<b>Indicators</b>	<b>A product</b>	<b>B product</b>	<b>Total</b>
Receipts from the production sale, UZS	2808180	1872120	4680300
Volume of production, units	500	500	1000
Direct costs, UZS	1722300	1148200	2870500
Including:	1276660	752781	2029440
- direct material costs,			
- direct labour costs	445640	395420	841060
Constant general production costs	164520	145981	310501
Variable general production costs	271710	241091	512800
Total costs, UZS	2158530	1535270	3693800
Prime cost of one unit of production, UZS	4317,06	3070,54	-
Profit, UZS	649650	336850	986500
Profitability indicator (in relation to the sale receipts), %	23,13	18	21,08

This factory is manufacturing A and B products, the receipt from the sale of “A” product accounts for 2808180 UZS, and the receipt from the sale of “B” product amounts to 1872120 UZS so the total amount of receipt equals to 4680300 UZS.

Expenses made on the manufacturing of these products and the method of the complete calculation of prime cost of these products are given in Table 2. Expenses on manufacturing of “A” product total to 2158530 UZS while expenses on manufacturing of “B” product account for 1535270 UZS. Prime cost of “A” product is 4317 UZS and prime cost of “B” product amounts to 3071 UZS. Profitability ratio of “A” product accounts for 649650 UZS or 23,13 per cent, and this indicator for “B” product equals to 336850 UZS or 18,00 per cent. Total profitability ratio

for these indicators makes 21,08 per cent.

Applying “Direct-costing method” for calculating production prime cost we have obtained the following results: prime cost of “A” product accounts for 3988 UZS, and for “B” product this indicator amounted to 2 779 UZS. Due to the reduction of the prime cost of the production, the amount of operational profit has increased and as a result the profitability ratio of these products increased to 29,00 and 25,71 per cent correspondingly. Production prime cost calculated with the use of «ABC» (“Activity-Based Costing”) method has shown the following results: prime cost of “A” product totals 4164 UZS and prime cost of “B” product accounts for 3024 UZS. As a result a profit amount and profitability indicator (26,87 and 19,24 per cent) reduced in relation to “Direct-costing” method.

**Table 2**

**Comparative analysis of the techniques used to determine prime cost of products**

<b>Indicators</b>	<b>Method for calculating complete prime cost</b>	<b>“Direct costing” method</b>	<b>ABC-method</b>
Prime cost of one unit of production, UZS			
A product	4 317,06	3 988,02	4 163,62
B product	3 070,54	2 778,58	3 023,98
Total expenses, UZS	3 693 800	3 383 300	3 593 800
Operational profit, UZS	986 500	1 297 000	1 086 500
Profitability indicator (in relation to the sale receipts), %	21,08	27,71	23,21

**Conclusion and recommendation.** In the process of our research we have calculated prime cost of production with the use of simple method, “Direct-Costing” and “ABC”method (“Activity-Based Costing”). Having compared the data we have obtained the following results which are illustrated in Table 3.

From the information presented in the Table it is obvious that “Direct-costing: and “ABC” methods are considered to be more efficient for calculating prime-cost of economic entities because when “Direct-costing” method was applied the total profitability ratio accounted for 27,71 per cent, and as for “ABC” method this indicator amounted to 23,21 per cent.

In conclusion it should be noted that while determining prime cost of products in our country such modern techniques as “Direct-costing” method and “ABC” method should be applied.

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