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The Enterprise Costs: The Essence and Methods of Economic Analysis

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ABSTRACT

Modern economic theory is based on the scarcity of resources and their possible alternative use. Therefore, when the company decides to produce any specific product, such as wooden furniture, it thereby waives wooden cottages blocks production. Hence the conclusion that the economic, or imputed, costs of the specific resource used in the given production are equal to its cost (value), provided that the resource is used in the best possible way of using it to produce goods. The economic costs is a payment to the provider paid by the enterprise resource provider or revenues provided by the enterprise, as well as internal costs to ensure that resources were used exactly according to the company and for a specific production version. The systematic reduction of costs is the main means of improving the profitability of the enterprise. Public production costs are a combination of labor and materials, which finds expression in the cost of production. The costs of the company consist of the sum of all expenses of the enterprise for production and sale of the produce. These costs, expressed in monetary terms, are called prime cost and are part of the value of the product.

JEL Classifications: D01, D04, D21, D24.

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1. INTRODUCTION

The production of competitive products is the reason why the company invests in the factors of production. When buying equipment, tools, materials, and the like, funds to make the purchases are the company's expenses. When talking about the use of production factors, we are talking about production costs. The costs are the monetary value of the costs of production factors necessary for its industrial and commercial activities. They can be presented in terms of the cost of production, which characterizes the monetary measurement of all material costs and labor costs necessary for production and sales.

Production cost is in relation to the indicators of production efficiency. It reflects the majority of the cost of production and depends on changes in the conditions of production and sales.

Technical and economic factors of production make a significant impact on the level of costs. This effect manifests itself depending on changes in technology, technology, production organization, structure and quality of the products and on the size of its production costs. Cost analysis is usually carried out regularly throughout the year in order to identify internal reserves to reduce them.

2. MATERIALS AND METHODS

The study is based on works of domestic and foreign researchers in the field of contemporary issues in business economics, social and economic relations of the enterprise with the external environment.

Validity and reliability of the study are predetermined by the extensive use of regulatory materials of federal, regional and municipal governments of the Russian Federation as well as federal, territorial and departmental statistics data.

We have used the classical scientific methods of analysis and synthesis, generalization, comparative analysis.

3. COSTS OF THE ENTERPRISE: THE ESSENCE AND METHOD OF ANALYSIS

Getting the greatest effect at the lowest cost, saving manpower, material and financial resources depend on how the company solves the problems of reducing the cost of production (Agapov & Seregina, 2013).

The immediate objective of the analysis are: checking the validity of the plan at a cost of progressive norms of expenses; evaluation of the implementation plan and the study of the causes of deviations from it, of dynamic changes; identification of reserves to reduce costs; finding ways to mobilize them.

Identification of cost reduction resources should be based on a comprehensive technical and economic analysis of the enterprise: the study of the technical and organizational level of production, utilization and fixed assets capacity, raw materials, labor, economic relations (Zhuravlev et. al., 2014).

The costs of labor and materials in the process of production are the cost of production. In the context of commodity-money relations and economic isolation of the enterprise there inevitably remain differences between the social costs of production and costs of the enterprise. Public production costs are a combination of labor and materials, expressed in the cost of production. The costs of the company consist of the sum of all expenses of the enterprise for production and its implementation. These costs, expressed in monetary terms, are called cost and are part of the value of the product. It includes the cost of raw materials, fuel, electricity and other objects of labor, depreciation, wages of production personnel and other cash expenses. Lowering the cost of production means savings materialized and living labor, which is the most important factor in increasing the efficiency of production, savings growth (Anosova, Kim & Seregina, 2013).

The largest share of the cost of industrial production consists of raw materials and main materials, followed by salaries and depreciation.

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economic factors of production make a significant impact on the level of costs. This effect manifests itself depending on changes in technology, technology, production organization, structure and quality of the products and on the size of its production costs. Cost analysis is usually carried out regularly throughout the year in order to identify internal factors to reduce them.

For the analysis of the level and dynamics of changes in the cost of production, a number of indicators is used. These include estimates of the cost of production, the cost price of the commodity and the products sold, reduction of the cost of a comparable commodity output and costs per ruble of commodity (sold) products.

An estimate of the cost of production is the most common indicator which reflects the amount of costs of the enterprise for its production activities in the context of economic elements. It reflects, firstly, the costs of the main and auxiliary production, associated with the release of product and gross output; secondly, the cost of works and services of non-industrial (construction and installation, transportation, research and design, and others.), and thirdly, the cost of production of new products, regardless of their source of compensation. These costs are calculated, as a rule, without taking intra-trade into account.

The cost of commodity products include all expenses of the enterprise for the production and marketing of commercial products in the context of calculation of expenditure. The cost of products sold is equal to the cost of the commodity minus the high cost of the first year of mass production of new products, compensated by the development of new technology fund, plus the cost of production of products sold from the remnants of last year. Expenses reimbursed by the Fund of development of new technology are included in the cost of the commodity, but are not included in the cost of products sold (Maximova, 2013). They are defined as the difference between the planned cost of the first year of mass production of products and the cost adopted when approving the prices:

$$C_S = C_C - C_O + (M_{C2} - M_{C1}), \quad (1)$$

where, C_S is the cost of products sold,

C_C is the cost of commercial products,

C_O is the capital outlays of the first year of mass production of new products reimbursed from the fund the development of new technology,

M_{C1} , M_{C2} is manufacturing cost of commodities unrealized (in warehouses and shipped) products, respectively at the beginning and end of the year.

To analyze the cost level in various enterprises or the dynamics of the different periods of time, the cost of production should be reduced to the same volume. Unit costs (estimate) shows the costs of the enterprise for production and sales of a particular type of product per standard unit. The cost calculation is widely used in pricing and comparative analysis.

Costs per ruble of the commodity of (sold) products are the most practically known general indicator which non-specifically reflects the unit cost in terms of value. It is widely used in the analysis of the cost reduction and allows, in particular, characterizing the dynamics and the level of production costs for the industry in general.

4. CLASSIFICATION OF THE ECONOMIC COSTS OF THE ENTERPRISE

Products cost is one of the most important economic indicators of industrial enterprises and associations, expressing in monetary terms all the costs of the enterprise associated with the production and sale of products. The cost price shows how much it costs for the company to produce its products. The cost price includes the costs borne for the products of past labor (depreciation of fixed assets, the cost of raw materials, fuel and other material resources) and the cost of labor payments to employees (wages).

The cost management is an important feature of a unified classification of costs for all sectors of the economy. For accounting purposes, the analysis and planning (Gorbachenko, Kuznetsova & Silnov, 2016) costs included in production costs are classified according to various criteria. Classification of costs allows more reasonable identifying the solutions to reduce costs and to design measures to reduce the cost of production and sales.

For planning, accounting and calculation, in the national cost management practices there is costs classification. For analysis and planning purposes The costs included in the cost of products are grouped according to various classification criteria (Table 1).

Table 1
Classification of production costs

Classification attribute	Absorption (according to classification attribute)	Maintenance costs
Economic content	Estimate of expenditures	The total amount of resources consumed
	Calculation	For a certain type of product
The degree of participation in the manufacturing process	General	Connected with the implementation of the technological process of manufacturing of products (materials, wages, etc.).
	Overhead	Connected with the production process control (works general, plant-wide costs, etc.).
The method of reference to the cost of certain types of products	Direct	Directly and indirectly related to the manufacture of products (raw material costs, wages, and other key workers.)
	Indirect	Contact now work as a whole; relate to the cost of indirectly
Part of the costs	Simple	They consist of one economic element (raw materials, wages)
	Complex	It consists of several elements with the same economic production value
Depending on the volume of production	Related Variables	Is directly dependent on changes in the volume of production
	Conditional permanent	It is slightly or not at all depend on the change in output

The practice has shown that the level of costs depends on the volume of products. In this regard, there is a division of costs and not dependent on the magnitude dependent production.

Features of the Costs, Depending on the Volume of Production

Fixed costs do not depend on the volume of production. They are determined by the fact that the cost of the equipment must be paid even in the event of production halt. Fixed costs include charges on bonds, rental payments, buildings and facilities depreciation, insurance premiums, a certain part of which is obligatory,

as well as higher management personnel and specialists of the company wages, payment protection, etc.

Variable costs depend directly on the number of products. They consist of the costs of raw materials, energy, wages to employees, and transport.

The amount of fixed and variable costs make up total costs. To control the production it is important to know the variable of costs per unit of output. In this regard, the average cost is calculated by dividing the value of the cost by the number of units produced now. In the same way, the average fixed and variable costs are calculated.

The ratio of individual economic elements in the total cost determines the structure of production costs. In a variety of industries the production cost structure is not the same; it depends on the specific conditions of each industry.

Grouping expenses into economic elements shows the material and monetary costs of the enterprise, without distributing them to individual products and other household needs. Economic elements usually do not allow determining the unit cost. Therefore, along with the expenses grouping by economic elements, production costs are taken into account and expenditures are planned (accounting articles).

Calculating the Cost of Production

Grouping of costs by calculation items reflects their composition depending on the flow direction (on the production or service) and the place of occurrence (primary production, support services, serving the economy). This group of costs is used in the calculation of the cost of production.

Grouping of costs of expenditure makes it possible to see the cost of their location and purpose, to know what it costs for the company to produce and sell certain products. Planning and taking into account of expenditure costs is needed to determine which factors influenced the cost level, in which direction you need to work to reduce it.

The industry uses the following nomenclature of the main calculation articles of (Table 2):

1. Raw materials;
2. Fuel and energy for technological purposes;
3. The basic wages of production workers;
4. The costs of maintenance and operation of equipment;
5. Shop costs;
6. Works general costs;
7. Loss from reject (faulty produce);
8. Nonmanufacturing costs.

The first seven items of expenditure form factory costs. The total cost is made up of the factory and the cost of nonmanufacturing costs.

Table 2
Classification of expenses on economic elements and calculation items

<i>Grouping of the cost of production by economic elements</i>	<i>Grouping of production costs by the calculation of expenditure</i>
1. Raw materials and basic materials (excluding returnable waste)	1. Raw materials
2. Purchased components and materials	2. Purchased component products, semi-finished products, and services of co-operative enterprises
3. Auxiliary materials	3. Return waste (minus)
4. Fuel side	4. Fuel for technological purposes
5. Electricity from outside	5. The energy for technological purposes
6. Salary primary and secondary	6. The basic wage of production workers
7. Social contributions	7. Additional wages of production workers
8. Depreciation of fixed assets	8. Social insurance contributions
9. Other financial expenses	9. Expenditure on training and development of production
	10. The costs of maintenance and operation of equipment
	11. The guild costs
	12. Offsite costs
	13. Losses from faulty produce (only industry where losses are allowed within the established norms)
	14. Other operating expenses
	15. Total production cost
	16. Non-production costs
	17. Total full cost of

The costs of enterprises, included into production costs, are divided into direct and indirect costs. The direct costs include costs directly related to the manufacture of products and accounted directly according to separate types: the cost of basic materials, fuel, and energy for technological purposes, wages are fixed production costs, etc. The indirect costs include costs that are impossible or impractical to be directly related to the cost of certain types of products: shop costs, general costs, maintenance and operation of equipment costs (Ragulina & Zavalko, 2013).

The shop and general costs in most industries are included in the cost of certain types of products by distributing them proportionally to the amount of wages in production costs (without surcharges according to progressive bonus system) and expenditure on the maintenance and operation of the equipment.

According to the article “Non-production expenses” mainly the costs of sales of finished products (the costs of packaging, packaging products, etc.) are accounted as well as expenditure on research and development, the costs of training, the cost of delivery of products in the station of departure, etc. Generally, non-manufacturing costs are included in the cost of certain types of products in proportion to their factory cost.

The list of articles costing, their composition and methods of distribution by types of products, works and services are determined by branch methodological recommendations on planning, accounting, and calculation of the cost of goods (works, services), taking into account the nature and the structure of production (Arzhakov & Silnov, 2016). Thus, grouping of the costs by cost items reflects the place

of occurrence of these costs and is used for planning, accounting, and calculation of the cost per unit of production and sale, concerning all commodity products.

Thus, the target cost classification will provide for the rational organization of cost control and management system.

Items of calculation of expenditures are divided into simple, consisting of a single economic element (raw materials, the basic wages, social contributions, etc.) and complex (the cost of maintenance and operation of the equipment, the craft and works general expenses and so on. d.), which consist of several economically dissimilar, but having the same destination element production.

Organizational-Economic Factors and Resources of Cost Reduction

At present, the analysis of the actual cost of the products, the identification of reserves and the economic effects of its reduction is used for calculation of economic factors.

Economic factors more fully cover all elements of the production process - the means, objects of labor and labor itself (Sofina, 2013; Silnov, 2106). They reflect the main areas of work of collective bodies of enterprises in order to reduce production costs: increase in labor productivity, the introduction of advanced equipment and technology, the best use of equipment, reduction of procurement and better use of the objects of labor, reduction of management and administrative and other overhead costs, waste reduction and elimination of non-productive costs and losses.

The economy to guarantee the actual cost savings is calculated according to the following composition (standard specifications) factors:

1. Improving the technical level of production. This means the introduction of a new, progressive technology, mechanization and automation of production processes; improving the use and application of new types of raw materials; changes in design and product specifications; other factors that increase the technical level of production.

In this group, the impact on the cost of scientific and technical achievements and advanced experience is analyzed. For each event, the economic effect expressed in the reduction of production costs is calculated. The savings from the implementation of the activities is determined by comparing the value of the cost per unit of output before and after the implementation of measures and multiplying this difference by the volume of production in the planned year:

$$SE = (D_{C1} - D_{C2}) \times A_N, \quad (2)$$

where, SE is saving of direct current expenses,

D_{C1} is direct operating costs per unit of output to the introduction of measures,

D_{C2} is direct operating costs after the introduction of measures,

A_N is production volume in physical units from the beginning of the implementation of the planned activities until the end of the year.

At the same also the savings on those activities that were carried out in the previous year should be taken into account. It can be defined as the difference between the estimated annual savings

and a part of it, measured in the planning calculations of the previous year. According to the activities that are planned for a number of years, the savings are calculated proceeding from the amount of work carried out with the help of new technology, only during the year, without taking into account the scale of the introduction before the beginning of this year.

Cost savings can occur when creating automated control systems, use of personal computers, improvement, and modernization of the existing equipment and technology. Costs are reduced as a result of the complex use of raw materials, the use of economic surrogates, full utilization of waste (Borisov, Petrov & Berezkina, 2013). A large resource is also product development, reducing its consumption of materials and labor, weight reduction of machinery and equipment, reducing the overall dimensions and others.

2. Improving the organization of production and labor. Cost reduction can occur as a result of changes in the organization of production, the forms and methods of work in the development of specialization of production; improving the management of production and reducing its costs; improving the use of fixed assets; improving logistics; reduction of transport costs; other factors that increase the level of production.

Specific resources to reduce the cost inherent in eliminating or reducing the costs that are not necessary for normal production process (excessive consumption of raw materials, fuel, energy surcharges working for a departure from the normal working conditions and overtime payments for regressive claims and so on). Identifying these unnecessary costs requires specific methods and focus of the enterprise. They can be identified by conducting special surveys and one-time accounting, when analyzing the data of regulatory accounting in production costs, through a thorough analysis of the planned and actual costs of production.

3. Changes in the volume and structure of production, which may lead to a relative reduction of fixed costs (excluding depreciation), a relative decrease in depreciation, changes in the range and variety of products, improve its quality. Fixed costs do not depend directly on the number of products. With an increase in the number of output their number per unit of product decreases, which reduces its cost. Relative savings on fixed costs is expressed by the formula:

$$S_C = (R \times A_F) / 100, \quad (3)$$

where, S_C is fixed costs savings,

A_F is the amount of fixed costs in the base year,

R is the rate of growth of marketable products in comparison with the base year.

The relative change in depreciation is calculated separately. Part of the depreciation (as well as other costs of production) is not included in the cost and is compensated by other sources (special funds, payment services on the side, not included in the commodity products, etc.). So the total amount of depreciation may be reduced. The reduction is determined by the actual data for the period. The total savings on depreciation is calculated using the formula:

$$S_R = (A_O C / U_P - A_I C / D_1) \times D_1, \quad (4)$$

where, SR is savings due to the relative decrease in depreciation;

A_0, A_1 is the amount of depreciation in the baseline and the reporting year;

C is the coefficient taking into account the amount of depreciation attributable to the cost of production in the base year;

D_0, D_1 are production volume in baseline and reporting year.

To avoid double counting, the total amount of savings is decreased (increased) by the part that is taken into account according to other factors.

Changing of the nomenclature and the range of products is one of the most important factors affecting the level of production costs. With different profitability of individual products (in relation to the cost), changes in products related to the improvement of their structure and to the growth of production efficiency can lead to reduction as well as an increase in production costs. The effect of changes in the production structure on the cost is analyzed according to the variable costs for items of a standard nomenclature. The calculation of the structure of production to the cost should be linked to performance increase productivity (Zhuravlev et. al., 2014).

4. Improvement of the use of natural resources. This takes into account: changes in the composition and quality of raw materials; changing fields of productivity, the amount of preparation during production, ways of extraction of natural resources; changes in other natural conditions (Gruzkov, 2014). These factors include the effect of natural conditions on the value of the variable costs. An analysis of their impact on the reduction of production costs is based on industry practices of extractive industries.
5. Industry and other relevant factors. These include input and the development of new plants and production units, preparation and development of production in the existing associations and enterprises as well as other factors. It is necessary to analyze the resources to reduce the cost as a result of the elimination of obsolete ones and commissioning of new plants and production units at a higher technical basis, with the best economic performance.

Significant resources are to be found in the reduction of expenses on preparation and development of new products and new processes to reduce the cost of starting a period of newly introduced into operation the shops and facilities. The calculation of the amount of expenditure changes is done by the following formula:

$$C_c = (S_1/D_1 - S_0/D_0) \times D_1, \quad (5)$$

where, C_c is a change of the cost of training and development of production,

S_0, S_1 are the sum of the base and the reporting year costs,

D_0, D_1 are production volume in baseline and reporting years.

The impact of changes in the location of production on the cost of commodity production is analyzed when the same type of product is produced at several enterprises with unequal costs as a result of various processes (Rodionova, 2013). In this case, it is advisable to calculate the optimal placement of certain products of the enterprises of association based on the use of

existing capacity, production costs reduction, and to reveal reserves on the basis of comparison of the optimal variant with the actual one.

If the changes in the value of the costs in the period under review are not reflected in the above-mentioned factors, then they are referred to other things. These include, for example, resizing or termination of all sorts of compulsory payments, the change in the costs included in the cost of production, and others.

5. CONCLUSION

The problem of distribution costs is one of the most urgent and important problems of an enterprise policy, as the level, dynamics, and cost structure are closely related to all aspects of economic activity of the enterprise, with all the planning and organization of the process, with the movement of goods from the production to the sphere of consumption.

Proper organization of the costs accounting makes it possible to reveal the reserves to reduce them. Accounting allows time to reflect production costs and monitor the progress of implementation of the plan on the costs of circulation, consumption of material, labor and financial resources. It contributes to the strictest observance of estimate and financial discipline and austerity, implementation and management of economic calculation.

To strengthen the control over distribution costs of commercial enterprise it is necessary to analyze each article of distribution costs. Such analysis helps to more fully reveal the reserves reduction of distribution costs, contributes to a more efficient use of all resources, labor, capital assets, fuel, energy, and materials. Improving the accounting treatment of costs leads to a correct reflection and, in turn, finding additional resources to reduce them.

Distribution costs are the most important and qualitative indicators of activity of the commercial enterprise.

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