

Article

Improvement of The Net Cost Calculation of Recycled Products in A Global Economic Environment

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Abstract: The article covers the strategic issues that are important for the perspective of the activities of enterprises producing and processing raw materials in the global competitive environment. Also, attention was paid to the current main problems, and scientific conclusions and proposals were developed through the analytical results of the cost and expected income indicators for each product obtained in the processing enterprises.

Keywords: costs, revenues, cost, processing enterprises, products, financial results, business prospects, strategic issues

1. Introduction

Sharp economic changes in the world community have their influence on the development of countries, indicating the relevance of strategic issues for the prospect. Therefore, attention is also paid to the modern development of raw material resource processing enterprises in order to solve the problematic issues that are expected in the future. The global economy is taking its toll today, and the development of sectors necessary for the development of countries is becoming strategic issues. This, in turn, assumes that it is necessary to improve the calculations so that economic entities in this area can operate economically and financially sustainably.

For the development of all countries, the effective use of the available resources owned by processing enterprises is one of the main requirements of today's economy. At the same time, it is permissible to focus on the priority accounting and analysis of expenses in order for the activities on the cost and income received at the enterprise to achieve a positive final financial result. In addition, one of the main tasks set before the accounting and analysis of expenses in processing enterprises is to provide the enterprise management system with real data. Through this information, enterprises have their own importance in developing the necessary strategic decisions on the solution of problems that need to be solved for economic prosperity, as well as in determining important tasks.

In the economic global environment, it is necessary to effectively use all processing and product manufacturing enterprises to properly manage the movement of its owned financial, material and labor resources. It is also an important and main issue is the rational use of raw material resources, the perfect formation of cost, as well as the improvement of cost calculations.

According to the world cotton market report, "the world market volume is projected to grow to \$ 128.81 billion by 2030, with a growth rate of 7.5 percent in 2022, at an estimated \$ 80.43 billion in 2030," according to the world cotton market report. These cases, in turn, lead to a sharp increase in demand for cotton raw materials and processing volumes. In its place, it indicates the need to pay special attention to the indicators of the final positive financial result in terms of cost and expected income.

According to the strategic approach in the world global competitive environment, cotton raw materials are also of high importance. One of the most important problems of its production and processing is the necessary resource supply for the creation of many types of innovational products for the next stages of the industry. Therefore, the effective

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organization of the processing of cotton raw materials determines the need for rational use of available resources.

2. Materials and Methods

Literature Review

The following attention is paid to the issues of net cost and expenses in the works of economists:

Economist scientist A. Shoalimov believes that “product’s net cost is understood as the monetary representation of all costs of production, sales and financial activities of an enterprise”¹.

A. Vahabov, N.A. Guliyev and A. Ibrahimov in their research give the definition of expenses as follows: “Expenses are the outflow of economic profit during the reporting period or a decrease in the form of their use, as well as the occurrence of obligations between participants that lead to a decrease in capital”².

Foreign scientist S.P. Polenova believes that “The accounting of production expenses serves to determine the internal needs and net cost of economic entities”³.

As economist scientist D.M. Akbasheva believes that “To manage expenses efficiently, it is necessary to take into account production and choose the right way to calculate expenses and production costs”⁴.

According to the author B. Qlichev, achieving the optimal volume of product production (Qlichev Baxtiyor Pardayevich, (2023)) and ensuring a positive ratio between cost-volume-profit reduces the cost of the product (Pardayevich, K. B. (2024)).

Methodology of the research.

Observation, logical and abstract thinking, a systematic approach, hypothesis and grouping methods were used. Through observation, the indicators of expenses, income and profit related to the activities of the enterprise are studied and their continuity is determined. Through logical and abstract thinking, it seeks opportunities to achieve positive financial performance from expected income performance through targeted cost implementation. Based on a systematic approach, it determines for what purposes expenses are spent and ways to increase profits by forming indicators of income. Through the methods of the hypothesis, it is aimed at making the expected result positive in terms of cost and income accounting and analysis. By purposefully carrying out costs in processing enterprises through the above methods, the result of each spent in the activities of the enterprise will be effective, and the analysis will serve to determine the capabilities of the enterprise.

3. Results

For the economic development of activities at processing enterprises, the continuous supply of raw materials with resources, their effective use, controlling the expenses, the establishment of an optimal level of net cost and price for the production and sale of products is an important issue. It is known that without expense, income cannot be achieved. The problem is that in processing enterprises, in combination with the receipt of the main finished product from raw materials, additional products are also created, and auxiliary production expenses are carried out. They must also have a certain value. Because even buying them, the enterprise can have a certain income. The excellent formation of the cost of additional products, which are secondary, also leads to a positive final financial result of the enterprise's activities (Pardayevich, K. B. (2023)). This requires the correct distribution of all costs in processing and activities.

¹ Shoalimov A.X. et al. Economic analyze. Teaching Manual. – T.: “Lesson-press”, 2016.

² Vahabov A., Ishonqulov N., Ibrohimov A. Manual. Financial and management analyze. – T.: “Economy-finance”, 2013.

³ Polenova S.P. Interrelation of production costs in managerial and financial accounting. Management accounting. 8(224) 2008.

⁴ Akbasheva D.M. Features of cost accounting and net cost calculation // Bulletin of Eurasian Science / The Eurasian Scientific Journal <https://esj.today> 2020, №6, Vol. 12 / 2020.

For example: an enterprise engaged in the processing of cotton raw materials. In the production balance of the enterprise, we will see the amounts of types of products obtained from processing by varieties of cotton raw materials in the Table 1 data below.

Table 1. Production balance of the enterprise⁵

№	Obtained products		Cotton given for processing					Total	
			1-growth	2-growth	3-growth	4-growth	5-growth		
			7315	591	243	107	119		8375
			Burn before Processing						
			29	4	3	3	3		42
			Processed raw material of cotton						
1	Fiber	Planned	kg	2426	185	69	28	30	2738
			%	33,3	31,6	28,9	26,8	25,8	32,9
		Actually	kg	2427	188	72	29	31	2747
			%	33,3	32,0	30,0	27,9	26,7	33,0
2	Seed	Planned	kg	3803	299	118	50	54	4324
			%	52,2	50,9	49,2	47,9	47,3	51,9
		Actually	kg	3697	291	113	49	53	4203
			%	50,7	49,6	47,1	47,1	45,7	50,4
3	Lint	Planned	kg	146	14	6	3	4	173
			%	2,0	2,3	2,7	3,1	3,2	2,1
		Actually	kg	256	19	8	3	4	290
			%	3,5	3,2	3,3	2,9	3,4	3,5
4	Ulyuk	Planned	kg	29	2	3	1	2	37
			%	0,4	0,4	1,1	1,4	1,6	0,4
		Actually	kg	51	2	3	1	2	59
			%	0,7	0,3	1,3	1,0	1,7	0,7
5	Pooh	Planned	kg	328	27	15	7	8	385
			%	4,5	4,6	6,1	6,4	6,5	4,6
		Actually	kg	247	27	15	7	8	304
			%	3,4	4,6	6,3	6,7	6,9	3,6
6	Burn	Planned	kg	554	60	29	15	18	676
			%	7,6	10,2	12	14,4	15,6	8,1
		Actually	kg	608	60	29	15	18	730
			%	8,3	10,2	12,1	14,4	15,5	8,8

In the data of Table 1: 8375 kg of cotton raw materials given for processing, 42 kg of KTS burn, 8333 kg of processed cotton raw materials, and as a result of its processing: fiber, which is the main product, amounted to 2747 kg, secondary products: seeds 4203 kg, lint 290 kg, ulyuk 59 kg, pooh 304 kg, as well as burn 730 kg. The following costs have been incurred to obtain these products:

- 1) PPCM - purchase price of cotton raw materials -27258924 soums;
- 2) PTC – preparation transport costs -701747 soums;
- 3) ACOP – auxiliary costs of preparation -5308356 soums;
- 4) TCCP - the total cost of cotton processing -3725495 soums;

Based on the expenses incurred on the five types of products in this example, it is necessary to calculate how to perfectly divide the procedure for establishing their net cost on the formation or sale to them. If the issue of reimbursement of expenses is focused on fiber, which is the main product, how is it necessary to formulate the expenses and sales

⁵ Author's development obtained on the result of the study.

estimates of seeds, lint, ulyuk and Pooh, which are the next secondary products left? Other similar processing enterprises: in oil-fat and oil processing enterprises, the acquisition of joint-stock products in addition to the main product for processing raw materials also makes many controversial cases inappropriate.

The author has developed the following method for determining the weight of each product and distributing expenses to it. In this case, the total expense is distributed according to the balance of each product obtained from production.

$$\text{TOTAL EXPENSE (TE)} = \text{PPCM} + \text{PTC} + \text{ACOP} + \text{TCCP};$$

$$\text{NET COST} = \text{UNIT WEIGHT} * \text{TOTAL EXPENSE} / 100$$

The procedure for calculating this is calculated as follows, depending on the table data and expense values above:

$$\text{TE} = \text{PPCM} + \text{PTC} + \text{ACOP} + \text{TCCP} = 27258924 + 701747 + 5308356 + 3725495 = 36994522 \text{ soum.}$$

$$\text{a) Fiber weight} = \frac{\text{Product weight}}{\text{Total weight}} * 100 = \frac{2747}{7603} * 100 = 36,13\%$$

$$\text{Total net cost} = \text{PRODUCT WEIGHT} * \text{TOTAL EXPENSE} / 100 = 36,13 * 36994522 / 100 = 13366296.4 \text{ soum};$$

$$\text{b) Seed weight} = \frac{\text{Product weight}}{\text{Total weight}} * 100 = \frac{4203}{7603} * 100 = 55,28\%;$$

$$\text{Total net cost} = \text{PRODUCT WEIGHT} * \text{TOTAL EXPENSE} / 100 = 55,28 * 36994522 / 100 = 20450871.5 \text{ soum};$$

$$\text{c) Lint weight} = \frac{\text{Product weight}}{\text{Total weight}} * 100 = \frac{290}{7603} * 100 = 3,81\%;$$

$$\text{Total net cost} = \text{PRODUCT WEIGHT} * \text{TOTAL EXPENSE} / 100 = 3,81 * 36994522 / 100 = 1411076.07 \text{ soum};$$

$$\text{d) Ulyuk weight} = \frac{\text{Product weight}}{\text{Total weight}} * 100 = \frac{59}{7603} * 100 = 0,77\%;$$

$$\text{Total net cost} = \text{PRODUCT WEIGHT} * \text{TOTAL EXPENSE} / 100 = 0,77 * 36994522 / 100 = 287080.99 \text{ soum};$$

$$\text{e) Pooh weight} = \frac{\text{Product weight}}{\text{Total weight}} * 100 = \frac{304}{7603} * 100 = 3,99\%;$$

$$\text{Total net cost} = \text{PRODUCT WEIGHT} * \text{TOTAL EXPENSE} / 100 = 3,99 * 36994522 / 100 = 1479196.99 \text{ soum};$$

The result of this method showed that the distribution of expenses based on their percentage share in terms of weight of the product manufactured serves to perfectly set the net cost. As a result, it forms objective data on the types, quantities and shares of products obtained from the processing of cotton raw materials. This serves to make strategically effective decisions for activity analysis and management under Table 2 below.

Table 2. Expenses distribution per product before processing⁶

No.	Product type	Product quantity		Product value (in 1000 soum)
		kg	%	
1	Fiber	2747	36.13	13366296.4
2	Seed	4203	55.3	20450871.5
3	Lint	290	3.81	1411076.07
4	Ulyuk	59	0.77	287080.99
5	Pooh	304	3.99	1479196.99
	Total:	7603	100	36994522

From Table 2, it can be seen that the finished product in the total expense spent in cotton processing enterprises is fiber 36.13 percent, seeds 55.3 percent, lint 3.81 percent, ulyuk 0.77 percent and pooh 3.99 percent, the products from cotton processing are made up of five manifestations, and their quantity, value differ greatly from each other. It can be seen from this that it has a certain amount of value in relation to the share of products obtained from production. Depending on its role in the economy of the enterprise, its

⁶ Source: Developed by the author based on the results of the research.

share in income, products obtained other than fiber cannot be viewed as waste. Because they are sold to other business entities or local residents. Will have an income of a certain value. For this reason, it is of great importance that we form a separate cost for each of the types of products derived from cotton processing.

4. Discussion

The findings of this study underscore the critical role that cost management plays in enhancing the economic sustainability of processing enterprises within a global competitive environment. The improved method for calculating the net cost of recycled products provides a more accurate allocation of expenses based on the weight and value of each product obtained from cotton processing. This methodological advancement ensures that both primary and secondary products, such as fiber, seeds, lint, ulyuk, and pooh, are assigned costs reflective of their economic contributions. As a result, enterprises can achieve a more transparent and equitable financial overview, which supports strategic decision-making and resource optimization.

Furthermore, the study highlights the necessity of comprehensive cost accounting practices that go beyond focusing solely on the main product. The inclusion of secondary products in the cost calculation not only reveals their potential economic value but also prevents the misclassification of these products as waste. By recognizing the revenue-generating capabilities of secondary products, enterprises can diversify their income streams and improve overall profitability. This holistic approach to cost management aligns with the principles of sustainable development, where maximizing resource efficiency is paramount.

Lastly, the empirical data presented in the case study of cotton processing enterprises validate the effectiveness of the proposed cost calculation method. The distribution of expenses based on product weight percentages results in a balanced cost structure that accurately reflects production realities. This approach facilitates better financial planning, cost control, and performance evaluation within processing enterprises. In the broader context of global economic fluctuations, such robust cost management strategies are indispensable for maintaining competitiveness and fostering long-term economic growth.

5. Conclusion

Based on the scientific views of the above economists and the opinions recognized by the author, in solving these issues of global importance, it was concluded: "Improving the net cost calculation of products obtained from processing in the global economic environment" deserves the main attention. When calculating the cost per unit of products obtained from processing, only by the type of main product, the objective is to properly organize the accounting of additional products that occur as a result of the production of the main product. Because, expenses, income and profit are one of the most important indicators in the activities of the enterprise. Their analysis directly serves to form economic opportunities for the economic development of the enterprise.

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