

STUDY ON THE COMPLETE ACCOUNTING FLOW WITHIN A PRODUCTION ACTIVITY

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Abstract: *The production activity involves the longest exploitation cycle, taking into consideration the steps needed to be followed, namely the supply with materials and raw materials, their consumption, the obtaining of finished products, semi-finished products and residual products and, finally, their sale. Many productive companies have their own purchasing cost standards for materials and raw materials and their own obtaining cost standards for finished products, semi-finished products and residual products. It is obvious the fact that, during the daily activity, the effective costs could be sometimes superior, sometimes inferior comparative to this standards. Thus, cost differences appear and they can be either favorable or unfavorable for the company, affecting the financial accounting registration. In the same time, different types of production involve different methods of cost calculation within the managerial accounting. This study aims to emphasize less theoretically and more practically a complete accounting flow within a bakery, that uses cost standards and sells both as a producer and a trader. In order to put this paper into practice, there are used various research methods such as the brainstorming, the case study, the analysis, the synthesis, the induction or the deduction.*

Key words: *production activity, accounting flow, cost standards, differences, cost calculation methods*

INTRODUCTION

Stocks are assets held for sale within the normal course of the business, in the course of production, for such sale or in the form of raw materials and materials to be consumed within the process of production or service provision [1].

The raw materials represent goods of the nature of stocks that participate directly in the manufacture of the products and which are found within the finite product, in whole or in part, either in their initial state or transformed [9]. Consumables are goods of a stock nature (auxiliary materials, fuels, packing materials, spare parts, seeds and planting materials, fodder and other consumables), which participate or help in the manufacturing or exploitation process without being found, usually, within the finite product [15].

The products include semi-finite goods, finite products, scrap, recoverable materials and waste [6]. The semi-finite goods cover products whose technological process has been completed in one section and which continue to be passed in the technological process of another section or delivered to third parties [3]. The finite products include products that have undergone the entire stages of the manufacturing process and no longer require further processing within the entity, which can be stored for delivery or shipped directly to customers [8].

MATERIALS AND METHODS

Accounting of raw materials, materials and price differences is organized using the accounts 301 "Raw materials", 302 "Consumables", having the asset accounting function and 308 "Price differences on raw materials and consumables", being a bifunctional account. Account 302 "Consumables" is developed on several synthetic of the 2nd degree [4]:

- 3021 - auxiliary materials;
- 3022 - fuels;
- 3023 - packing materials;

- 3024 - spare parts;
- 3025 - seeds and planting materials;
- 3026 - feed;
- 3028 - other consumables.

As it follows, we will present the main accounting records generated by the movement of the stocks of raw materials and materials [2].

The raw materials and the consumables purchased from suppliers generate the following changes in the patrimony of the company:

	%	=	401	„Suppliers”
„Raw materials”	301			
„Consumables”	302			
„Deductible VAT”	4426			

The consumption of raw materials and consumables determines:

„Expenses regarding the raw materials”	601	=	301	„Raw materials”
„Expenses regarding the consumables”	602	=	302	„Consumables”

The account 308 ”Price differences on raw materials and consumables” is used if the record of the raw materials and consumables is kept at the standard price. In this situation, within the stock accounts, the inputs or outputs of raw materials and consumables are highlighted at the standard price [13]. The differences between the actual prices and the standard prices are recorded on the debit, respectively on the credit of the account 308 ”Price differences on raw materials and consumables”, as the case may be [7].

The product accounting is organized with the help of the group 34 ”Products”. This group includes the accounts [10]:

- 341 - semi-finite goods;
- 345 - finite products;
- 346 - residual products;
- 348 - price differences on products.

The main accounting records generated by the movements of the products are the following:

The obtaining of the finite products determines the following changes in the level of the patrimony and the results of the company [5]:

„Products”	345	=	711	„Revenues regarding the products stock cost”
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The sale of the finite products generates two categories of changes:

- those determined by the actual sale operation, which involves [6]:

„Customers”	4111	=	%	
			701	„Revenues from the sales of products”
			4427	„Collected VAT”

-the ones generated by the download of the finite products from the management:

„Revenues regarding the products stock cost”	711	=	345	„Products”
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The process of figures (equivalence coefficients) is used for sort-dimensional (on assortments) or type-dimensional (on types) production.

In order to accomplish the present study, there are used various research methods, among which the case study is the most important [11].

RESEARCH RESULTS

Table 1.

The complete accounting flow within the production activity

FINANCIAL ACCOUNTING	MANAGEMENT ACCOUNTING	FINANCIAL ACCOUNTING
SUPPLIER	COMPANY	CUSTOMER
<p>- Supply of raw materials and consumables from the supplier 401, 5311, 5121 - effective price 301, 302 - standard price 308 - favorable difference (minus D) 308 - unfavorable difference (plus D)</p> <p>- Consumption of raw materials and consumables K - the share of price differences $K = (Si\ 308 + Rd\ 308)/(Si\ 301, 302 + Rd\ 301, 302)$</p>	<p>- Calculation of cost per unit of work or service product</p> <p>The process of equivalence figures !!! It is used for sort-dimensional production (on assortments) or type-dimensional production (on types) !!!</p> <p>Steps:</p> <ol style="list-style-type: none"> 1. Choosing the standard assortment or type (most representative) 2. Calculation of the equivalence coefficients for each assortment or type $K_i = \frac{P_i}{P_{etalon}}$ <p>i - assortment or type</p> <p>K_i - coefficient of equivalence on each assortment or type</p> <p>P_i - parameter on each assortment or type</p> <p>P_{etalon} - parameter on the standard assortment or type</p> <ol style="list-style-type: none"> 3. Calculation of the total production in equivalent units $Q_{ue} = \sum_{i=1}^n Q_i \times K_i$ <p>Q_{ue} - total production in equivalent units</p> <p>Q_i - the specific amount for each assortment or type</p> <ol style="list-style-type: none"> 4. Calculation of the equivalent unit cost $C_{ue} = \frac{C}{Q_{ue}}$ <p>C_{ue} - the cost of the equivalent unit</p> <p>C - total cost</p> <ol style="list-style-type: none"> 5. Calculation of the unit cost of each assortment or type $C_{ui} = K_i \times C_{ue}$ <p>C_{ui} - the unit cost for each assortment or type</p>	<p>- Obtaining finished products 711 - full cost effective 345 - full standard cost 348 - favorable difference (minus D) 348 - unfavorable difference (plus D)</p> <p>- Own sale/ Registration of finished products revenues</p> <p>- Downloading from management/ Removing finished products K - the share of price differences $K = (Si\ 348 + Rd\ 348)/(Si\ 345 + Rd\ 345)$</p>

Source: own elaboration

Schematically, the complete accounting flow in the production activity is presented in Table 1.

In order to exemplify the complete accounting flow within the financial and the management accounting, the following example is considered [14]:

A bakery company has an initial stock of raw material (flour) evaluated at the actual cost of 100.000 lei, standard cost 105.000 lei, favorable difference – 5.000 lei. It acquires flour at the actual purchase cost of 50.000 lei, standard purchase cost 40.000 lei, 19% VAT. Raw material (flour) is consumed at an effective cost of 80.000 lei. We have to record in the financial accounting the purchase of raw material (flour) and its consumption.

The company obtains the following products: bread (A), croissants (B) and bagels (C) in the following quantities: $Q_A = 100.000$ pcs, $Q_B = 500.000$ pcs, $Q_C = 300.000$ pcs. The total cost required to obtain these quantities is 300.000 lei. The amount of flour incorporated in each product is 0,3 kg / pcs for bread (A), 0,1 kg / pcs for croissants (B) and 0,05 kg / pcs for bagels (C). The chosen parameter is the quantity of raw material (flour) incorporated in each product, and the standard product is A (bread). Determine the unit cost for each product and the total cost for each assortment in the management accounting.

The company has finite products (bread) on stock, valued at a complete cost of 200.000 lei, standard cost 195.000 lei, unfavorable difference 5.000 lei. It obtains a finished product (bread) at the full cost actually determined previously, having a standard full cost of 100.000 lei. It sells the finite product (bread) at a sale price of 150.000 lei, 19% VAT; full effective cost of the finite product (bread) sold 120.000 lei. We have to record in the financial accounting the obtaining of finite product (bread) and its sale.

The operations generated by the entry of raw material and its consumption within the financial accounting are the following:

1. Purchasing the raw material (flour)					
40.000		%	=	401	„Suppliers” 59.500
	„Raw materials”	301			
10.000	”Price differences on raw materials and consumables”	308			
9.500	„Deductible VAT”	4426			
2. Consumption of the raw material (flour)					
80.000	„Expenses regarding the raw materials”	601	=	%	
				301	„Raw materials” 77.600
				308	„Price differences on raw materials and consumables” 2.400

$$K = \frac{Si_{308} + Rd_{308}}{Si_{301} + Rd_{301}} = \frac{-5.000 + 10.000}{105.000 + 40.000} = \frac{5.000}{145.000} = 3\%$$

The operations generated by the calculation of the costs of obtaining the finite product bread within the management accounting:

The bread = A → standard assortment

- $P_A = 0,3$ kg/pcs
- $P_B = 0,1$ kg/pcs
- $P_C = 0,05$ kg/pcs

$$K_A = \frac{P_A}{P_A} = \frac{0,3}{0,3} = 1$$

$$K_B = \frac{P_B}{P_A} = \frac{0,1}{0,3} = 0,333$$

$$K_C = \frac{P_C}{P_A} = \frac{0,05}{0,3} = 0,167$$

2. $Q_A = 100.000$ pcs
 $Q_B = 500.000$ pcs
 $Q_C = 300.000$ pcs

$$\begin{aligned} Q_{ue} &= Q_A \times K_A + Q_B \times K_B + Q_C \times K_C = \\ &= 100.000 \times 1 + 500.000 \times 0,333 + 300.000 \times 0,167 = \\ &= 100.000 + 166.500 + 50.100 = \\ &= 316.600 \text{ pcs} \end{aligned}$$

3. $C = 300.000$ LEI

$$C_{ue} = \frac{C}{Q_{ue}} = \frac{300.000 \text{ LEI}}{316.600 \text{ pcs}} = 0,95 \text{ LEI/pcs}$$

4. $C_{uA} = K_A \times C_{ue} = 1 \times 0,95 = 0,95 \text{ LEI/pcs}$
 $C_{uB} = K_B \times C_{ue} = 0,333 \times 0,95 = 0,32 \text{ LEI/pcs}$
 $C_{uC} = K_C \times C_{ue} = 0,167 \times 0,95 = 0,16 \text{ LEI/pcs}$
 $C_{tA} = C_{uA} \times Q_A = 0,95 \times 100.000 = 95.000 \text{ LEI}$
 $C_{tB} = C_{uB} \times Q_B = 0,32 \times 500.000 = 160.000 \text{ LEI}$
 $C_{tC} = C_{uC} \times Q_C = 0,16 \times 300.000 = \underline{48.000 \text{ LEI}}$
 300.000 LEI

The operations generated by the reception of the finite product and its sale within the financial accounting are the following:

1. Obtaining the finite product (bread)

		%	=	711	„Revenues regarding the products stock cost”	95.000
100.000	„Products”	345				
-5.000	„Price differences on products”	348				

2. Selling the finite product (bread)

a) Revenues recording

178.500	„Customers”	4111	=	%		
				701	„Revenues from the sales of products”	150.000
				4427	„Collected VAT”	28.500

b) Downloading from the management

120.000	„Revenues regarding the products stock cost”	711	=	%		
				345	„Products”	120.000
				348	„Price differences on products”	0

$$K = \frac{Si_{348} + Rd_{348}}{Si_{345} + Rd_{345}} = \frac{5.000 + (-5.000)}{195.000 + 100.000} = \frac{0}{295.000} = 0\%$$

CONCLUSIONS

The accounting in double circuit is characterized in principle by the creation of two types of accounting with a relative independence. It is about the financial accounting and the management accounting [2].

The criterion of differentiation of the two accounting types is the one that considers the recipients of the accounting information [2]:

- ✓ financial accounting provides information to the internal users (the management of the company) but also to the external users (associates, banks, tax bodies, suppliers, customers, creditors, etc.);

- ✓ management accounting provides accounting information exclusively for the management of the company.

The organization of the management accounting is mandatory. It is very useful to organize the management accounting, being an absolutely necessary tool for the management of the company, but we should also take into account the fact that by imposing its obligation on all companies, there is a risk that certain factors have access to data and information which are nonetheless confidential and belong exclusively to the heritage holder. However motivated is the organization of the management accounting, there are certain situations in which it does not find its justification. In this regard, we could refer to some small businesses within the commercial network such as kiosks, tobacco shops, some small shops in the food sector, etc., in order to observe that the objectives of the management accounting, in this case, can be achieved through the financial accounting [6].

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