

IMPROVING MANAGEMENT ACCOUNTING AND COST CALCULATION IN DAIRY INDUSTRY USING STANDARD COST METHOD

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Abstract

This paper aims to discuss issues related to the improvement of management accounting in the dairy industry by implementing standard cost method. The methods used today do not provide informational satisfaction to managers in order to conduct effectively production activities, which is why we attempted the standard cost method, it responding to the managers needs to obtain the efficiency of production, and all economic entities. The method allows an operative control of how they consume manpower and material resources by pursuing distinct, permanent and complete deviations during the activity and not at the end of the reporting period. Successful implementation of the standard method depends on the accuracy by which standards are developed and promotes consistently anticipated calculation of production costs as well as determination, tracking and controlling deviations from them, leads to increased practical value of accounting information and business improvement.

Key words: standard cost method, calculation, deviations, effective costs, standard costs.

JEL Classification: M40, M41

Introduction

The main objective of the development and diversification of the costing methods in the dairy industry is to make them more operational and effective in providing the necessary information for management decision making. Actual costing method practiced in dairy industry enterprises, does not provide to management fully satisfaction of needs for information

The need to improve management accounting and cost calculation methods of dairy industry cost, necessitates the adoption of some methods and techniques of budgeting, collection and allocation of production costs and cost calculation, enabling efficiency, simplicity, economy, foresight and so on, all together in the end to improve the obtained results. These new methods and techniques of cost calculation must be the result analyze of the current real situation and having in prospect the future requirements on the objectives which must be achieved, so as to improve functional position held by financial accounting, generally, and management accounting and cost calculation especially, in the management activity of the dairy industry enterprises.

Among all these methods, standard cost method is most responsive to the needs of operative management of the value side of the production process and increase economic efficiency.

2. Standard cost method – application in dairy industry

By applying it, standard cost method is a workable system for tracking and cost control through integration of standard cost pre-calculation with post-calculation. Based on pre-calculated costs is achieved observance standard costs, determining, if is necessary, the corresponding deviations. Standard costs are costs grounded on scientific basis according to the requirements of production processes, as they are standards of measurement and comparison of actual production costs.

The main feature of the standard cost method is that spending standards are not only pre-calculated costs but also production costs considered normal or real. Standard costs represent the only calculation of the costs of product used in setting selling prices. Differences in plus or in minus appeared at the manufacture of products compared to standard costs are considered deviations from normal activity conditions. To address the needs of management in the control activity, standard cost should be based on knowledge of actual conditions in the entity, to be accepted by the managers of responsibility centers and present a motivational character.

Standard costs represent the predetermined costs, making it possible to assess the performance of the enterprise for a given period. These costs are used in determining the selling price and any deviation from them

is considered deviation from normal manufacturing conditions. Deviation does not affect the product price but are reflected on the result of the activity.

Simplifications and advantages brought in calculation by this method caused it widespread and rapidly evolving towards higher forms. Standard cost method offers undeniable advantages in studying and analyzing the operational efficiency of the production of food companies of manufacturing dairy products, becoming an important tool for investigation and prediction.

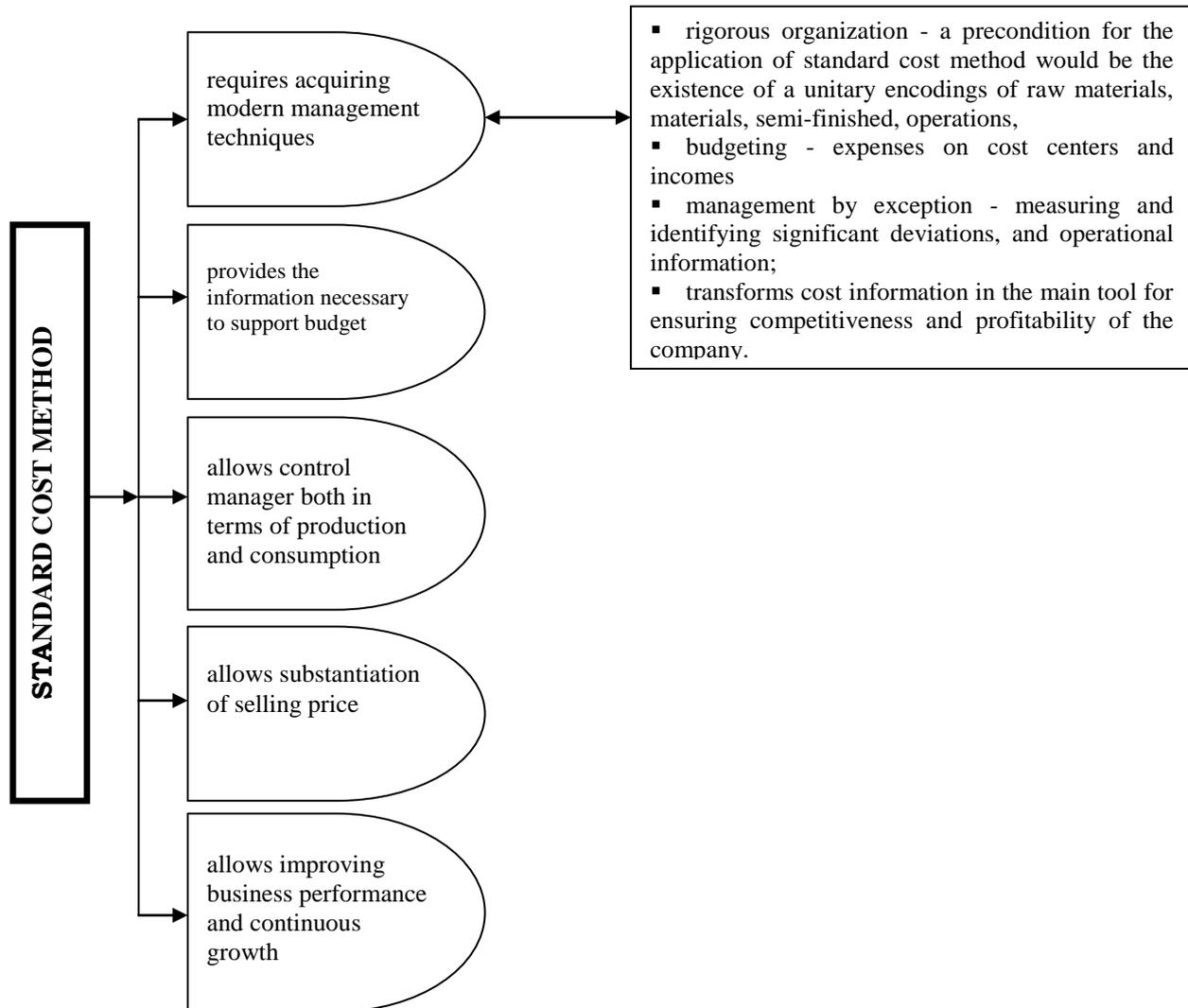


Figure no. 1. Advantages of Standard Cost method

In order for management bodies within the food industry of manufacturing dairy to know the action of relevant factors which lead to savings or cost overruns from the pre-calculated, it takes some information about respective deviations, which requires necessarily the existence of post calculation, which can provide information allowing to verify the framing of actual expenditure within normal limits provided in regularly of deviations from the pre-calculated actual costs.

By applying the standard cost method aims the increasing of production costs role to achieve the established objectives by the preparation and decision making process for the establishment of corrective action.

The main work posed by standard cost method [3] are:



Figure no 2. Stages of applying Standard Cost method

Stage of drafting the standard calculation on product is required in developing quantitative standards of materials and manpower, value standards regarding standard procurement prices and standard wage tariffs, as well as standard for overheads. Elaboration of standard calculation on product occurs before manufacturing and requires the establishment of standard production varieties to determine the optimal use of production capacity of enterprises in food manufacturing dairy products. Through this is allowed to know the volume of material and labor costs required to manufacture each product, under natural technical and organizational conditions, to determine the involvement degree of different areas of activity to form production cost and share of expense returns per unit of obtained product

Calculation, monitoring, control and track deviations from standard costs operatively performed during the manufacturing process, on places costs, generating places and causes, for making decisions and cost control on the management value side of production process.

Deviations analysis enables the establishment and assessment of factors that deviate actual cost from standard cost and allows triggering corrective necessary actions.

Deviations from standard costs for raw materials and materials are aimed both value and physically and represents more or less differences as a result of exceeding the specific consumption, changing prices or making omitted additional work in developing standards and are determined as the difference between actual cost of consumed materials for obtained effective production and standard cost of raw materials for the production standard.

These types of deviations are of two kinds, namely: quantity or consumption deviations, and value deviations from price differences.

In this case, deviations from standard or quantitative consumption for raw materials and supplies are calculated according to the mathematical relation (1), and deviations from price differences according to the mathematical relation (2).

$$Ac = (Ce - Cs) \cdot Ps \cdot q \quad (1)$$

$$Ap = (Pe - Ps) \cdot Ce \cdot q \quad (2)$$

where: Ac – deviation of quantity
 Ap – deviation of price
 Ce – effective quantitative consumption
 Cs – standard quantitative consumption
 Pe – effective unit price
 Ps – standard unit price
 q – production volume

For operative tracking of raw materials and materials deviations of the actual costs from standard costs is proposed that at established intervals of time to prepare the *Report on deviations from standard costs for raw materials, materials and utilities* which are part of findings made during the analysis.

This report is based on information concerning the name of raw materials, materials and utilities, units, quantities consumed (actual and standard), unit purchase price (actual and standard), value of materials (actual cost and standard cost).

For December of 2012, for product X, we know the following data: output, consumption of raw materials and materials, the purchase price according to Table. 1.

Table no 1.

Report on the cost of raw materials and materials

SC Y SA
 Period: December 2012
 Production volume: 1500 kg
 Product X

Name	UM	Consumed quantity		Unit price		Material value	
		Effective	Standard	Effective	Standard	Effective	Standard
Raw material 1	l	126	125,475	1,20	1,20	151,20	150,57
Raw material 2	l	15.000	15.000	0,05	0,05	750	750
Consumable material 1	g	375	373,5	0,45	0,50	168,75	186,75
Consumable material 2	g	450	450	1,35	1,30	607,5	585
Consumable material 3	l	0,375	0,375	13	13	4,875	4,875
Consumable material 4	pc	60	60	0,8	0,8	48	48
Consumable material 5	pc	60	60	0,2	0,2	12	12
Total				17,05	17,05	1742,325	1737,195

From calculations it is observed that value of consumed raw materials and materials at actual costs was £ 1.742,325, and the total value of consumed raw materials and materials at standard costs was £ 1737,195.

Deviations from standard consumption were calculated by applying the data from table 2 relating to raw material 1 in mathematical relation (1).

$$Ac_1 = (126 - 125,475) \cdot 1,20 = 0,63\text{£}$$

Analog is done for the rest of raw materials and consumable materials.

Deviations from price differences were calculated by applying data from Table 2 in mathematical relation (2).

$$Ap_2 = (1,20 - 1,20) \cdot 126 = 0\text{£}$$

Same calculation applies to other directly consumed raw materials and materials.

Table no. 2.

Report on deviations from standard costs for raw materials and materials

SC Y SA
 Period: December 2012
 Production volume: 1500 kg
 Product X

Name	UM	Consumed quantity		Deviation		
		Effective	Standard	Standard consumption	Price differences	Total
Raw material 1	l	151,20	150,57	0,63	0	0,63
Raw material 2	l	750	750	0	0	
Consumable material 1	g	168,75	186,75	-18	-0,05	-18,05
Consumable material 2	g	607,5	585	22,5	0,05	22,55
Consumable material 3	l	4,875	4,875	0	0	
Consumable material 4	pc	48	48	0	0	
Consumable material 5	pc	12	12	0	0	
Total		1742,325	1737,195	5,13	0	5,13

Deviations analysis is much easier because recording technique used in this method that allows systematic analysis at different times of the activity of the economic entity. However, deviation analysis allows establishing responsibilities for each deviation separately, integrating relevant factors in assessing the company's performance, updating the database. Upon completion of the analysis, findings are part of reports or statements for deviations.

Analyzing all the obtained results can be given an explanation of all causes deviations from standard costs for raw materials and materials. Thus, purchased raw material 1 which had a density lower than the normal range, leading to increased specific consumption and also increase consumption of consumables 1, decreased / increased the purchase price to some consumables.

According to the scope of cost calculation, can be seen that deviations affect gross profit of the company. (Figure no. 3).

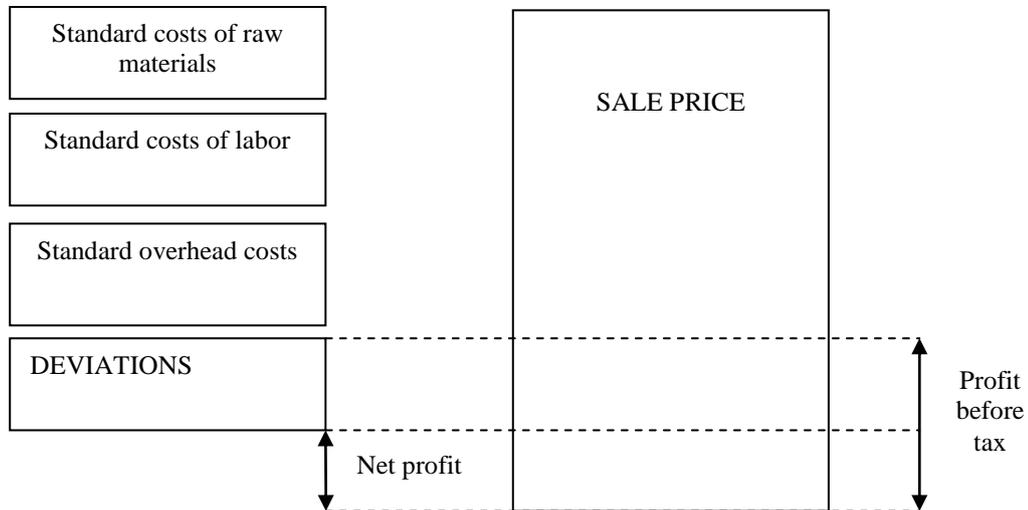


Figure no. 3. Costing according Standard Cost method

Source: Budugan Dorina ș.a., 2007, Contabilitate de gestiune, Editura CECCAR, București, pag. 342

The limits of standard Cost methods are as follows (figure no.4):

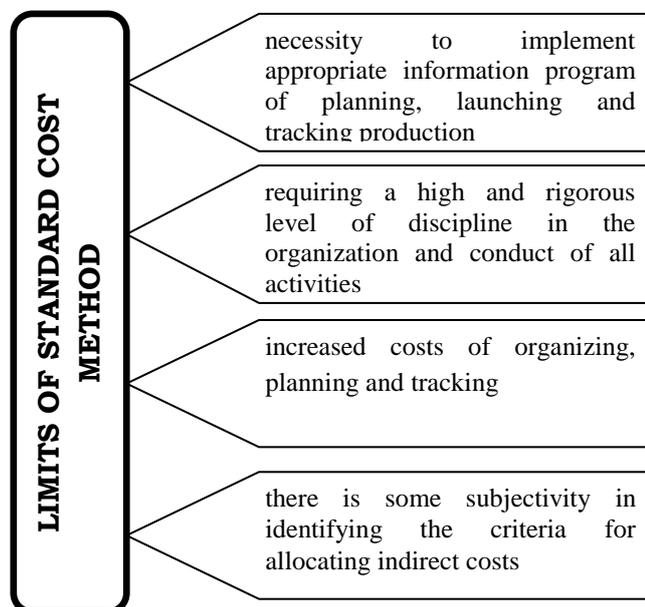


Figure no. 4. Limits of Standard Cost Method

Between the three variants of the standard cost method, standard cost single version best meets the requirements of the food industry for the manufacture of dairy products. With this method is made an operational budgetary control of how the material resources and manpower are consumed by distinct, permanent and complete pursuing of deviations during the activity and not at the end of the reporting period, both in operative

evidence and accounting, global and on causes, from the moment of their occurrence, respectively their identification until the allocation on financial results.

The method offers undeniable advantages on line of studying and analyzing the production efficiency, to could accomplish in this way an important function for modern enterprise management, that of investigation and forecasting tool.

Conclusion

The shortcomings and limits of the accounting organization of production costs and the achievement of cost calculation at economic entities from dairy industry were the starting point for finding the best solutions to improve the way of making the application of standard cost method.

Standard cost promotes management by exception, provides a fixed target and work as long as objectives are met or achieve, management intervention comes only in the detection of deviations.

Standard costing identifies individual processes or products cost, making it possible to knowingly an approach to budgeting and profit maximization through different product mixes.

Standard costing is a valuable tool, the benefits of which extends to much more than better accounting. Companies can reap the advantages of standard costing depending on how correctly they approach it, and how well they use it.

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