

ANALYSIS OF THE DEVIATIONS FROM STANDARD COSTS AND INFORMATION USE AT THE COMPANY MANAGEMENT LEVEL

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Abstract

The analysis of the deviations from standard costs may be a source of valuable information for the company management. Introducing the deviations from standard costs in the performance reports would provide better accuracy for the process of performance assessment. By analyzing the deviations and establishing the responsibilities, the manager could take corrective measures that would lead to achieving the target performance. Due to this analysis, the target performance levels may be revised and reassessed. This article aims at proposing solutions for monitoring and interpreting the deviations.

Key words: standard cost, deviations, analysis, decision, management

JEL Classification M40, M41

1. Introduction

Performance measurement is a necessary, yet not sufficient, condition for the development of a company. Performance measurement should be one of the performance management components. The managers ought to act towards obtaining performance, not to be satisfied with just measuring the performance obtained in the past. The need for a more precise and accurate knowledge of the costs level results on the one hand from the limited nature of the resources, and on the other hand, from the desire to increase performance. The company performance could not be measured unless we manage to precisely establish the costs generated by the activity of the company [1].

The method of standard costs has a series of advantages that led to this rapidly spreading and improving throughout the entire world. In practice, for the countries with market economy, the standard is the measuring norm of the production efficiency, under certain circumstances. The standards express proportions or values scientifically established, based on the data collected from previous periods and on the forecast elements correlated with the circumstances during which the future activity of the company is analyzed [4]-[5]. Thus, their main purpose targets the future activity, and this is the reason why the standards are used as means of measuring, controlling and administering the activity.

2. Determination of deviations

For the company management, it is important to determine the difference between the actual production cost and its standard cost. The result of this difference is interpreted in the following way:

➤ A negative cost deviation corresponds to an actual cost inferior to the standard cost and thus is called a favorable deviation;

➤ A positive cost deviation corresponds to an actual cost superior to the standard cost and thus is called an unfavorable deviation.

This grouping of deviations highlights the importance of the deviations as a consequence of the organization pattern of the activity, a pattern which could be efficient or inefficient.

Another grouping of the deviations takes into consideration the responsibilities, namely:

➤ Controllable deviations imputed upon some responsible persons;

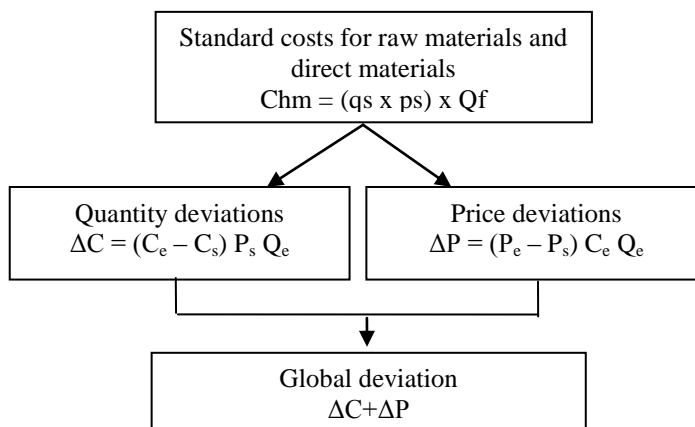
➤ Uncontrollable deviations generated by external factors, such as the increase of the price for the materials, which cannot be referred to any responsible persons.

The deviations from the standard consumption of raw materials and direct materials represent plus or minus differences as a result of not complying with the specific estimated consumption or having other causes (using replacement, works not taken into consideration when establishing the standards, price modification etc.). The deviations from raw material and direct materials may be quantitative deviations and price deviations.

The diagram for determining the deviations from the standard costs for raw materials and direct materials is presented in Figure no. 1. As it can be noted, the deviations may be from standard quantities or from standard price. The determination of each type of deviation is important for analyzing its causes.

Figure no. 1

Deviations from the standard costs for raw materials and direct materials



Source: elaborated by the authors based on the specialized literature

3. Analysis of deviations from standard costs

Knowing the deviations is very useful for the managers in their plan and control activity. In order to use a deviation in assessing performance is fundamental for the manager to understand the cause of that deviation. For a better monitoring and interpretation, the deviation rates can be calculated based on the values in absolute amounts previously determined. The analysis of the deviations does not need to have as unique purpose the assignment of responsibilities, but it has to allow for the understanding of causes and obtaining better performance in the future. The analysis of the deviations must be carefully performed by taking into consideration the long term objectives of the company.

Possible causes of the deviations from the standard costs for raw materials and direct materials are presented in table no. 1:

Table no. 1

Possible causes of the deviations for raw materials and direct materials

Deviations from raw materials		Possible causes	Responsibility
Quantity deviations	Favorable	The standard quantities were wrongly established (over necessities)	Production Manager (engineer)
		Sub-standard consumption (with negative effects on the product quality)	Production Manager (engineer)
	Unfavorable	Unjustified loss	Foreman, technician
		Inadequate storage	Administrator
		The tools and machinery are not adequately maintained	Maintenance engineer
Price deviations	Favorable	Have negotiated a better price than the standard one	Purchase manager
		The supplier has been changed	
		Larger quantities have been bought, with a price discount	
		Other unfavorable conditions were accepted (lower quality)	
	Unfavorable	The standard purchase prices have been wrongly assessed (in plus)	Supply manager
		The prices are lower on the market.	Uncontrollable
		The standard purchase prices have been wrongly assessed (in minus)	Purchase manager
		The prices are higher on the market	Uncontrollable

Source: elaborated by the authors

Similarly, we can establish the causes for the deviations from standard costs for manpower, as it is illustrated

in Table no. 2:

Table no. 2

Possible causes of the deviations for direct manpower

Deviations at direct manpower		Possible causes	Responsibility
Quantity deviations (from time)	Favorable	Qualification over standard (on long term hidden costs appears generated by personnel leave in adequate positions)	Personnel manager
		Incorrect assessment (in plus)	Production manager
	Unfavorable	Inadequate work conditions	Production manager, Personnel manager
		Qualification sub standard	Personnel manager (can be uncontrollable if there is a lack of qualified workforce on the labour market)
		Poor quality of materials	Purchase manager
		Inadequate maintenance of tools and machinery	Maintenance engineer
		Incorrect assessment of standards (in minus)	Production manager
		Overtime (without it being estimated)	Production manager, Personnel manager
Price deviations (from salary)	Favorable	Reduction of salaries	Personnel manager
	Unfavorable	Overtime, unanticipated better paid	Production manager (partially uncontrollable)
		Increase of the minimum salary on economy	Uncontrollable

Source: elaborated by the authors

The deviations from the indirect costs may be [7, p. 292]:

- Deviations resulted from modifying the indirect costs volume;
- Deviations resulted from modifying the usage factor of the production capacity;
- Deviations from performance.

The operative control of indirect expenses, separated on categories and calculation items, is done for centralizing documents called comparative situations of indirect expenses. In these comparative situations, all the actual indirect expenses and the planned expenses are highlighted, delimiting them according to the expenses areas (centers, sectors, processes, activities etc.), and within these areas on calculation items (maintenance expenses and machinery running expenses, general expenses of the unit, general administration expenses, bargain sales).

A computer program that is used in the company could decisively contribute to the reduction of the work time and volume necessary for establishing the standards and for assessing the deviations. Lately, new solutions of Business Intelligence (BI) have been proposed, which offer support for a more efficient management of the company. One such application is Qlik View. L. Șerbănescu and M. Rădulescu underline the advantages of this program for managing the human resources: „Data referring to human resources is processed in due time and analyses such as: the analysis of labor force, absenteeism, productive hours, personnel expenses, training days etc can obtained” [12].

The deviations must be reported by taking into consideration the following:

- The correct identification of the deviations according to the influence factors;
- The allocation of job responsibilities for each employee, in order to identify those responsible for unfavorable deviations;
- The report of the deviations should be oriented towards the unfavorable deviations, as a consequence of the management by exception;
- The report of the deviations to the top management of the company may also include details in the case of the deviations provided by the inferior levels, with causes and persons in charge.

The deviations from the standard costs appear as a consequence of a multitude of causes, located inside or outside the company. The manager can control problems located inside the company, but has little or no control for problems located outside the company. The manager should identify the responsible division or person which caused the deviations. The control activity is mostly done in the case of the unfavorable deviations, being a characteristic of the management by exception [6, p. 112]. Based on the analyses of the deviations and on the identification of the responsible divisions or persons, the manager can take corrective measures in order to reach the performance target of a division or of the entire company.

The analysis of the deviations allows for the update of the databases, the allocation of responsibilities for each deviation, the integration of the relevant factors in assessing the performances of the company, the renewal of the standards in order to take decisions and establish the budget.

The management by exception consists in focusing attention on domains that are not at the expected parameters. The domains with higher deviations deserve special attention. Control should be exercised especially in the case of the unfavorable deviations, being a consequence of the management by exception. Based on the analyses of the deviations and on the identification of the responsible entities, the manager can take corrective measures in order to reach the proposed performance. The revision of the performance level that has to be reached could result from this analysis. Thus, a favorable deviation at the price of the raw materials may result from the fact that the materials purchased were of poor quality. Moreover, the favorable deviation at the salary tariff may result from the fact that workers with lower qualification were used, therefore affecting the quality of the products.

The deviations within the limits of an acceptable interval are often inevitable and are considered controlled, without the need of further investigation regarding their causes.

The observations resulted from the analysis are listed in „The deviations report”, a document which is drawn up after the analysis has been performed, with the indication of the person in charge with the raw material consumption and manpower etc. D. Budugan et al [2, p. 343] mention the following basic principles for the elaboration of the report:

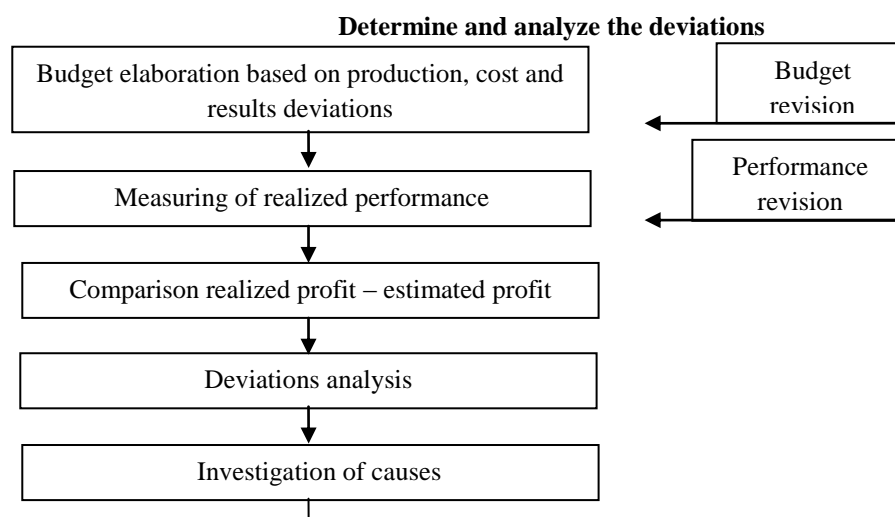
- The exception principle, specific to the method of standard costs, which presupposes a selective notification of the aspects that imply urgent decisions to be taken, such as the negative aspects that affect the result obtained by the entity;
- The principle of continuous and complete monitoring of the deviations, both the operative inventory and in the accounting, until the moment when these are considered obtained results;
- The principle of operative notification, namely the managers should receive the information in due time and take decisions more rapidly;
- The principle of selecting and rational routing of the information regarding the deviations.

Regardless of the nature of the expenses, the analysis and control of the pre-established costs aims at highlighting the deviations, for determining the causes, the corrective measures and the allocation of responsibilities, as shown by C. Iacob et al [9, p. 165]. The calculus and the analysis of the deviations should be performed on each calculation item specific to the method of the standard costs, for each expenses domain. The process of determining and analyzing the deviations is graphically presented in Figure no. 2.

Mostly, there is a interdependence relation between the deviations. An unfavorable deviation of the raw material efficiency may be associated with a favorable deviation of the price, if the people in charge from the purchase departments have bought cheaper raw materials, of lower quality.

It is possible to use the deviations in performance evaluation. The production manager can receive efficiency bonuses in case of keeping the expenses for exploitation within the limits of the budget. Understanding the causes that determined the deviations may lead to gaining experience based knowledge and, implicitly, to improving the company’s performance. The results of the deviation analysis represent the background for establishing the costs for the future periods.

Figure no. 2



Source: Caraiani, C., Dumitrana, M., Contabilitate de gestiune&Control de gestiune, second edition, Universitară Publishing House, Bucharest, 2008, p. 325

The control based on deviations has three essential moments:

- Before costs occurrence, in precalculation phase;
- During costs occurrence, by monitoring them using the calculation methods;

➤ After the costs occurrence, based on the calculation.

In Figure no. 3 we present the calculus model for costs and profit per product in the view of the standard costs.

Figure no. 3

Calculation of costs and profit per product using the method of standard cost

			SALE PRICE	ESTIMATED PROFIT	REAL PROFIT = Estimated profit	
Unfavorable deviations (+)					- Unfavorable deviations	
Standard overhead costs (+)	STANDARD COST	ACTUAL COST			+ Favorable deviations	
Standard manpower costs (+)						
Standard costs for direct materials (+)						

Source: elaborated by the authors

Another important aspect regarding the deviations is to keep track of them in the accounting calculation. M. Dumitrana and C. Caraiani (2010) [6, p. 135] present three methods to deal with deviations from an accounting point of view:

1. Transfer of deviations from the profit and loss account of the current exercise. In this method, the stock of materials and products are evaluated at the standard costs, and the deviations account will be closed by the results account. This method can be applied in the case of numerous and varied products which make it difficult to attach the deviations to each product.

2. Allocation of deviations to the sold items cost and to stock cost may affect the stock evaluation at actual cost, which make it easier to complete the financial statements. This should be applied when the standards differ a lot from the actual costs.

3. The transfer of deviations in the next financial year in the form of postponed expenses. The method should be applied in the case of industries with a production cycle longer than a year.

The application of the standard cost method allows for highlighting the way to obtain profit on account of standard costs and the deviations from the standard costs (favorable or unfavorable).

Introduction of deviations from the standard costs in the performance reports provides more accuracy to the performance evaluation process. According to B.Needles et al, for drawing up a performance report based on standard costs and the correspondent deviations it is necessary to comply with the policies of the company by (1) identifying the persons in charge for each deviation, (2) determining the causes of each deviation, (3) creating a system of selective management and (4) creating a format report adapted to each function [10].

One of the advantages of the deviations analysis, pointed out in Ch. Horngren et al, is the emphasis laid on individual aspects of performance [8, p. 256]. It is recommended that the performance analysis should not be based on one indicator, because the managers might have the tendency to take decisions that would lead to obtaining positive values for that indicator, to the detriment of other aspects of equal importance or even more important for the company performance. Such problems arise when the manager establishes an evaluation system and an incentive program for the performance obtained that does not emphasize the company’s objectives as a whole.

4. Conclusions:

In order to fulfill the purpose, the evaluation of the managers should be done taking into consideration the responsibilities of each manager, which must be clearly and precisely defined. During the evaluation process of a manager’s performance, only those elements that the manager can control should be taken into account. The companies ought to try to continuously maintain a balance between the two fundamental goals of the deviation analysis: evaluation of performance and organizational training. Therefore, the cost control shall follow two main aspects: goods production and services at the lowest cost possible on one hand, and compliance with the pre-established quality standards on the other hand.

However, obtaining the balance is not as easy as it looks. If more emphasis is placed on using the deviations for the performance, then the targeted standard becomes a goal itself for the employees, thus affecting the organizational training/learning program. The managers might be tempted to remain within their established budgets and to avoid unfavorable deviations, even if the long term consequences are detrimental to the company.

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