POSSIBILITIES OF OPERATIONAL PURSUIT OF RECALCULATED COSTS (PREVIOUSLY ESTABLISHED, STANDARD) WITHIN THE FIELD OF MANAGEMENT

Ph.D. Student Camelia OBREJA
University „Valahia“ of Targoviste, Romania

Abstract

The standard costs method it places the cost control directly to economic processes executives, who se administration bookkeeping supplies them predictions about deflections just in time. The standard cost method stands, simultaneous, at the root of decision substantiating and optimizing and it simplifies the evaluation work in the course of production. The standard costs can be taken into consideration by establishing the products sale prices.

The rigidity of standards constitutes one of the standard -cost method limits due to the fact that while the entity and the environment in which its activity takes place is evolving continuously, the standards are reviewed discontinuously, on the other way, they are submitted to the reviewing operations any time it is needed.

Keywords: standard, calculation article, negative deviations, positive deviations, costs, value deviations, quantity deviations, fixed costs, variable costs.

1. THE STANDARDS: CONTROL INSTRUMENTS OF THE COSTS

The action area of the instruments used in the administration control is extremely vast, starting with the ones that hint at the informing of the decisional factor (the costs) and ending with the ones that hint at the behavioural control (the centres of responsibility). At the junction of the two types of instruments are placed the standards.

On one side, their use endows the managers with a powerful control instrument of the costs (especially the ones generated by the paid prices and the quantities that had been used), by establishing certain ‘norms’ that are to be obtained in the exploitation process.

On another side, the analysis of the deviations (exceptions) from these norms and the setting of the responsibilities strongly influence the employees’ motivations, substantially modifying their behaviour.

A standard is a reference or a norm in measuring the performance [2].

To come forward to the needs of the management in the control activity, the standard cost needs to be fundamented based on the knowledge of the actual conditions of the entity, to be accepted by the managers of the responsibility centres and to present a motivational character.

The determination of the standards raises one question: how ‘exigent’ must the standards be? Actually, must the standards reflect the total exploitation capacity of the company or the capacity that must be reached? Depending on the answer to these questions, the specialty literature [3] makes the difference between the **ideal** standards and the **practical (real)** ones.

The ideal standards are the ones that can be reached under the optimal circumstances. They have the disadvantage of discouraging even the best employees, while the variations of these standards do not supply with an informational plus.

The practical standards account on the periods of interruption within the production process, as well as the deviations and losses inherent to this process.

The deviations from such standards are extremely useful to the managers, because they represent deviations that exit the range of normality, requiring the attention of the managers and allowing the anticipation of the treasury tides and the planning of the supplies’ administration.

The standards are established at the level of the three main categories of costs attachable to the process of production:

- direct materials;

[2] R.H. Garrison, *Management Accounting. Concepts for Planning, Control, Decision making,* Fifth Edition, BPI/IRWIN, 1988, pag. 383;
[3] Ion Ionaşcu, Andrei Tiberiu Filip, Stere Mihai, Control de gestiune, Editura Economică, 2003, pag. 75;

- direct manual labour;
- indirect production costs.

For each of the three categories of costs, the standards are calculated as 'price' and 'quantity' standards, even if, semantically, these make sense only for direct materials. But the standards refer to the cost and quantity of the input used in the process of production, no matter if it is about direct materials, direct manual labour or overhead charges.

Besides the establishment of the materials, the administration control perspective requires their comparison to the actually obtained results. Only by comparing the actual cost to the standard one, at the level of each operation or of each responsibility centre for a period of time, can the control function be accomplished in an adequate manner. The difference between the standard cost and the actual one is named **deviation** or **variation** in specialty literature.

The negative deviations (the exceeding) may have the following causes:

- the non observance of the technological process;
- the effectuation of supplementary operations in reconditioning machine parts;
- the replacement of certain materials with others;
- other deficiencies within other activity sectors in the entity.

The positive deviations (the savings) are due to the rationalizations within the production process.

2. THE DETERMINATION AND ANALISYS OF THE DEVIATIONS FROM THE STANDARD COSTS

Considering the fact that the primary function of standard costs is that of measurement and comparison standard for the actual expenses, exerting a systematic control over them, the use of the standard cost method implies:

- ***the registration of the costs*** during the production process applying to the sorts, places and generative causes;
- ***the analysis of the deviations*** considering their size and causes;
- ***drawing up the measures*** which should be applied to eliminate the negative deviations and to place the actual costs between the set standards.

The analysis of the deviations from the standard costs is realised by the application of *the principle of exceptions.*

According to this principle, for each leading level the significant positive or negative deviations would be set, both as value and as quantity, that require immediate measures to eliminate the causes that generated them (for the negative aspects) or to maintain the existing situation.

The deviations which have been considered insignificant at first, would be subsequently analysed considering the locations where they occurred because it has been observed that, on the whole, there are significant deficiencies which can not be ignored.

Within each sector (department, workshop, etc.) of expenses, the calculation and the analysis of the deviations are done with the calculation articles specific to the standard cost method, as follows:

a. *the deviations* from the standard costs for *raw materials and for direct materials*;
b. *the deviations* from the standard costs for *manual labour*;
c. *the deviations* from the *standard indirect expenses*.

a. <u>The deviations from the standard costs for raw materials and for direct materials</u>

This category of deviations comprises the following types:

- ***Quantity or expenditure deviations (Qed)***

$$\mathbf{Qed = (Aq-Sq) * Sp * Q}$$

where:

Qed = antity expenditure deviation;

Aq = actual quantity (or actual expenditure) for each product unit;
Sq = the standard quantity (or expenditure) for each product unit;
Sp = the standard price (unit price) of the raw material;
Q = the quantity of product obtained through a specified period of time.

We notice that the deviations from the used quantities are calculated based on the standard prices (Sp), in an attempt to isolate the effect that the use of materials has.

Considering the actual price (Ap) may lead to alter the informational contents of this deviation regarding elements due to the provisioning department.

The deviations of the quantities must be determined when the materials enter the expenditure.

They can be determined by factors as:

- mistakes in the production process;
- the insufficient qualification of workers;
- the week superintendence;
- the low quality of the materials;
- changes within the production process, etc.

Generally, the responsibility for these deviations falls upon the manager of the production line. But there are cases when the responsibility for these deviations also falls upon the manager of the provisioning department, when he purchases materials of inferior quality, which prove to be inadequate in the production process

- ***Price deviations (Pm)***

$$\mathbf{Apm = (Pe-Ps) * Ce * Q}$$

where:

Pm = the price deviation;
Ap = the actual price (unit price) of the raw material, also named effective price or supply price;

The provisioning prices may fall under the influence of factors such as:

- the extent of the purchased lots;
- the delivery method that is used;
- the discount system of the suppliers;
- the quality of the purchased materials;
- the terms of delivery;
- the level of the taxes practiced by the taxation system.

To the extent where the manager of the provisioning department may be able to control these factors, the responsibilities for the price deviations fall upon him.

But, if the actual prices surpass the standard ones due to certain alterations of the market conditions which generate the rise of the prices, the price deviation can not be controlled by the provisioning manager.

But, if no changes happen within the market conditions, the unfavourable deviations represent, most times a failure of the managers to find reasonable supply sources. A favourable price deviation may represent the result of successful negotiation with the suppliers, as well as the result of the acquisition of lower quality materials than the ones necessary in the production

process, and this may lead to an increase of dissipation or the lower level of quality for finite products.

The determination of the price deviations should be realised at the moment of the acquisition, no matter the moment when the materials would be used.

b) The deviations from the standard costs for manual labour

The cost of labour is determined by the price paid for the carried out labour (the salary) and the quantity of carried out labour (the time). To conclude, the calculation of price and quantity deviations also applies in the case of direct labour.

This category of deviations comprises the following types:

- ***Quantity or time deviations (Qd)***

$$Qd = (at-st) * Spl * Q$$

where:

Qd = the time deviation;
at = the actual time needed for the production of each unit product;
st = the standard time needed for the production of each unit product;
Spl = the standard price of labour (or salary price) per time unit;
Q = the quantity of produced products.

The efficiency of using labour within the production process is mostly assigned to the production department and depends on a series of factors. The inefficiency in the use of labour may be generated by:

- the use of materials of inadequate quality;
- various degrees in the qualification of workers;
- the impossibility to maintain the equipments in appropriate conditions;
- the insertion of new equipments and instruments;
- changes in the structure of the process of production etc.

Though, these deviations can not always be controlled by the manager of production.

For example, they may be due to the faulty planning of productionor to the changes that occurred in the standards of quality control.

The review of the standards may be determined by the favourable deviations that occurred as a result of the training programmes that the employees had attended.

- ***Cost deviation (Cd)***

$$Cd = (Alc - Tss) * at * Q$$

where:

Cd = the cost deviation;
Alc = the actual labour cost (the salary cost) per time unit.

In the case of deviations from the standard labour costs , the actual cost and the standard labour cost are being corrected with the additions to the salaries (the contribution to the social security fund, the contribution to the unemployment fund, the contribution to the medical insurance fund).

The deviation from the tariff salary may be the result of increases in negotiated salaries, which had not been considered when the new standards had been established. Under such circumstances,

the deviation can not be regarded as being under control, and, as a result, no responsibilities can be set.

Part of or the whole unfavourable deviation may be the result of defective allotment of labour within a responsibility centre due to the fact that the production manager had not associated the difficulty degrees of the unfolded operations to the qualification levels of the employees. For example, excessively qualified manpower is used in activities that do not require such qualifications.

c) The deviations from the standard overhead expenses

The determination of the deviations of the standard overhead costs is influenced by the differential behaviour of costs reported to the volume of production.

The calculation and the analysis of these deviations is realised based on the following information:

- fixed overhead standard costs (**Fsc**) and actual standard costs (**Asc**);
- variable overhead standard costs (**Vsc**) and actual variable costs (**Avc**);
- the variable overhead from the flexib le budget cost (**Vfbc**);
- the planned quantity of products (**Pq**) and the actual quantity of products (**Aq**);
- the total standard time (**Ts**) and the actual standard time (**As**);
- the standard time for the production of each product unit (**st**);
- the actual time for the production of each product unit (**at**);
- the rate of the fixed overhead costs for standard labour hours (**rf**);
- the rate of the variable overhead costs for standard labour hours (**rv**).

regular overhead charges swoops (Acf)

The determination of such swoops is influenced by the following variables:

- the actual overhead cost is different from the standard overhead cost;
- the actual production differs from the standard production.

Considering these two variables, we will distinguish the following o verhead charges swoops:

- **swoops that due to the regular overhead charges modification (Acf)**

$$Acf = Cfe - Cfs$$

From the international point of view, the calculus of this swoop is insignificant.

If we consider heterogeneous char acter of the regular overhead costs (they consist of different cost types) , a relevant analysis of this swoop would ask for its deduction into afferent swoops of each element.

As a matter of fact, there can be a multitude of elements that would determine the swoops size and direction.

Generally, it is considered that this swoop is uncontrollable, because in order to set straight the responsibilities we need to ascertain the variations' cause, by comparing the elements at individual level.

- **swoops that due to production volume towards output standard volume or volume swoops (Acfq)**

$$Acfq = (Qe * ts - Qs * ts) * rf$$

The volume swoops reflect the fact that the regular overhead charges does not fluctuate due to the production, at least for a short term.

As long as the actual production is inferior to the standard production, the sum of regular costs allocated to production will be inferior to the standard ones, so the swoop will be inauspicious.

The changes in production volume towards the standard value can be generated by multiple causes, like:

- modifications in the demands' structure;
- conflicts between employees;
- scarcity of some materials;
- a defective production planning;
- work efficiency;
- the low quality of production process projection, etc. Only a couple of these elements are controllable by the production manager.

Volume swoop can be analyzed from the angle of two "sub-deflections", **which are output deflections (Acfqr)** and **capacity deflections (Acfqc).**

Output deflections are measured by the calculus:

$$Acfqr = (Qe * ts - Te) * rf$$

The content of this deflection is dependent on work efficiency, therefore, the counted factors in the case of this deflection.

Capacity deflections (Acfqc) are measured with the help of the calculus:

$$Acfqc = (Te - Qs * ts) * rf$$

This deflection reflects the efficiency which the production capacity is being used with.

The impossibility of the standard production capacity level reaching can due to multiple factors, like: lack of some materials, equipment and gear deteriorations, defective production planning, employees conflicts, decreasing request of products etc.

- Variable overhead charges swoops (**Acv**)

$$Acv = Qe * ts * rv - Cve$$

This deflection can be analyzed from the angle of two "sub-deflections":

- **deflections that due to variable overhead charges swoops level modification**

$$Acv = Cvbf - Cve = Qs * ts * rv - Cve$$

Globally calculated, this deflection is relevance lacked in the decisional activity, because it is not split on each particular element.

The budget values are calculated considering the prices and consume rates expected for every variable price element.

Practically every combination is possible between modifications in these factors.

For example, if the indirect materials cost is bigger than the budget cost, the difference can be determined by the increase of indirect materials price or by the increase of usage percent of the implied materials, or a combination between these two.

Similarly, modifications of variable overhead costs towards the budget ones can result from the interference of variations in tariff wages level, or from production time.

Simultaneously, maintenance and repairs, expenses with illuminating and electricity, or other cost elements can influence the level of such deflections.

In consequence, we cannot obtain a relevant interpretation without deflections analysis from the angle of its component elements.

- **output deflections**

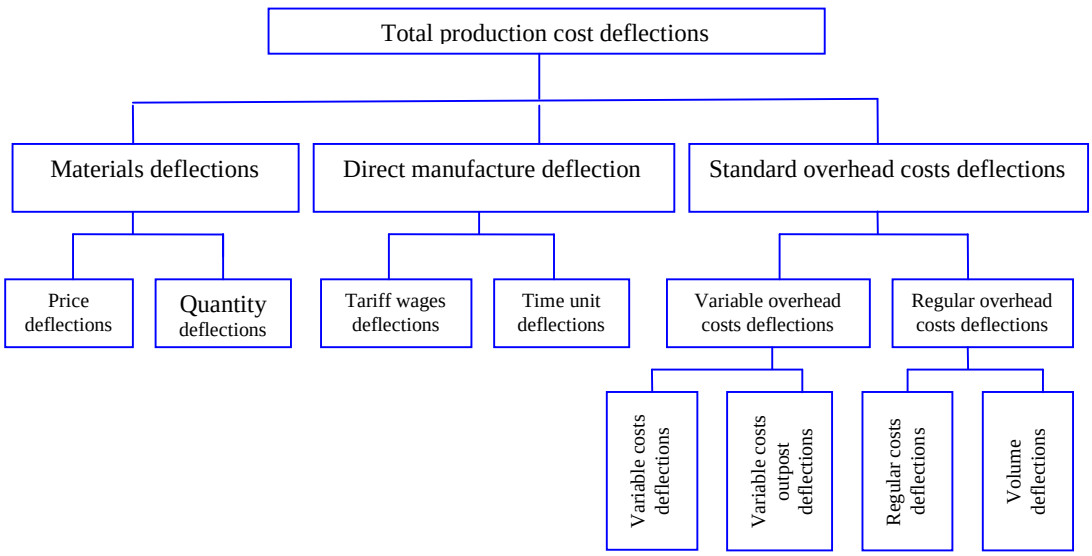
$$Acv = (Qe * ts - Te) * rv$$

This type of deflection results from work efficiency, therefore the previously mentioned factors, in the case of direct manufacture deflection stay valid.

Synthesizing, it can be observed that, comprising the three previously mentioned deflection types (deflections from the standard costs of raw materials, deflections from the standard manufacture costs and the deflections from regular overhead and variable overhead charges standard costs) results the difference between the standard cost afferent to the obtained production and the actual cost of obtained production.

The deflections can be synthesized in the next figure:

Figure no. 1. Deflections from the standard costs of raw materials, deflections from the standard manufacture costs and the deflections from regular overhead and variable overhead charges standard costs



3. CONSIDERATIONS ABOUT ADVANTAGES AND DISADVANTAGES OF STANDARD COSTS METHOD IMPLEMENTATION

The standard costs method has the advantage of favorable influencing the organization and management method of economic processes and especially production technology.

Another advantage refers to the fact that standard cost method conducts towards informational system simplification, at all the enterprise levels, increasing its operability by simultaneous informing of all hierarchic scale of ranks about every type of deflection.

Also, the possibility to take correction measures in the moment of appearance and to analyze the standard costs deflections and of the causes that generated them.

Simultaneously, it places the cost control directly to economic processes executives, whose administration bookkeeping supplies them predictions about deflections just in time. The standard cost method stands, simultaneous, at the root of decision substantiating and optimizing and it simplifies the evaluation work in the course of production. The standard costs can be taken into consideration by establishing the products sale prices.

The rigidity of standards constitutes one of the standard -cost method limits due to the fact that while the entity and the environment in which its activity takes place is evolving continuously, the standards are reviewed discontinuously, on the other way, they are submitted to the reviewing operations any time it is needed.

The reality of predefined standards is affected by the fact that a deflection does not undergo the correction action only if this is significant. Thus, the fixing of signification rate becomes ambiguous.

We estimate that in the increasing degree of action comp lexity, the administration accounting must hold to some superior requests. But this thing can be made only in the conditions of combining the advantages of different methods depending on the activity features, so it can permit the administration to manage the costs in the operative phase of the managing process.

The standards harnessing are limited by deflections which are induced after the events take place. Still, as long as people know already that their work will be later analyzed; it is very probable that they act in a different manner than they would act if their work wouldn't be monitored.

Most of all, even though the manager cannot modify an employees results, an analysis of the way in which he has evolved in the past, can indicate, as for the design ated employee, as for his superior, methods of performance increase for the future. Such analysis is realized by standards and swoops utilization.

4. BIBLIOGRAPHY

[1] Bouquin, H., *Comptabilité de gestion*, 3 e édition, Editura Economică, Paris, 2004
[2] Briciu Sorin, *Contabilitate analitică şi de gestiune*, Editura Ulise, Alba Iulia, 2002
[3] Briciu Sorin, Burja Vasile, *Contabilitate de gestiune. Calculaţia şi analiza costurilor*, Editura Ulise, Alba Iulia, 2004
[4] Budugan Dorina, Georgescu Iuliana, Berhea Ioan, Beţia nu Leontina, *Contabilitate de gestiune*, Editura CECCAR, Bucureşti, 2007
[5] Caraiani, C., Dumitrana, M., *Contabilitatea managerială între realitate şi oportunitate*, în Congresul profesiei contabile din România, Editura CECCAR, Bucureşti, 2004
[6] Cristea, H., *Contabilitatea şi calculaţiile în conducerea întreprinderii*, Ediţia a 2-a, CECCAR, Bucureşti, 2003
[7] Căpuşneanu Sorinel, *Contabilitatea de gestiune şi calculaţia costurilor*, Editura Economică, 2003
[8] Cucui I., Horga V., M. Radu, *Contabilitate de gestiune*, Editura Niculescu, Bucureşti, 2003
[9] Cucui I., Horga V., M. Radu, *Control de gestiune*, Editura Niculescu, Bucureşti, 2003
[10] Dumitru Corina Graziella, Ioanăş Corina, *Contabilitatea de gestiune şi evaluarea performanţelor,* Editura Universitară, Bucureşti, 2005.
[11] Diaconu, P., ş.a., *Contabilitate managerială aprofundată*, Editura Economică Bucureşti, 2003
[12] Ebbeken Klaus, Possler, Ristea Mihai, *Calculaţia şi managementul costurilor*, Editura Teora, 2000
[13] Ion Ionaşcu, *Dinamica doctrinelor contabilităţii contemporane. Studii privi nd paradigmele şi practicile contabilităţii*, Editura Economică, 2003
[14] Ion Ionaşcu, Andrei Tiberiu Filip, Stere Mihai, *Control de gestiune,* Editura Economică, 2003
[15] Oprea Călin, *Contabilitatea de gestiune*, Editura Tribuna Economică, Bucureşti, 2002
[16] Oprea Călin, Gheorghe Cârstea, *Contabilitate de gestiune şi calculaţia costurilor*, Editura Genicod, 2000
[17] R.H. Garrison, *Management Accounting. Concepts for Planning, Control, Decision making,* Fifth Edition, BPI/IRWIN, 1988

[18] Sucală, L., *Contabilitatea de gestiune – între reglementare şi necesitate, în condiţiile procesului de convergenţă în România*, în volumul Congresul profesiei contabile din România, Editura CECCAR, Bucureşti, 2004