*Theoretical and Applied Economics*
*Volume XVII (2010), No. 5(546), pp. 49-58*

# Relevant Costs for Decision in an Effective Controlling System

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**Abstract.** *Controlling is considered a leading concept in the sense of coordination, planning, control and automation, in order to produce the synthesis necessary in decision making. The purpose of article is to highlight the link between a dynamic accounting system and an effective controlling system. The research method used is based on the idea that the cost analysis in an efficient controlling system involves obtaining accounting information from within the entity which management then uses in decision making. In conclusion, we emphasize that an effective controlling system must provide managers the tools to meet their informational needs.*

**Keywords:** controlling; accounting; cost; decision; performance.

**JEL Codes:** M11, M41.
**REL Codes:** 14B, 14I.

## 1. The role of controlling in the management's performance

During the current period, performance becomes a reference for managers and performers as well. A performing economic entity better exploits the opportunities of the external environment, passes more easily over periods of crisis generated by it, quantitatively and qualitatively satisfies a certain segment of social needs and gains competitive advantage on the specific market in which she acts. Performance is associated primarily with a net superior advantage of what was obtained in a previous period; then secondly, with a superior result than those produced by competitors and, thirdly, with a better result than the objectives they've set for themselves.

To be efficient, the economic entity needs to apply the total quality approach based on five fundamental concepts: conformity, prevention, excellence, measurement and accountability (Jianu, 2007, p. 530). Mostly, the accounting of economic entities is not organized to identify quality costs. This is why managers attach greater importance to total production costs at the expense of quality costs. A system that quantifies the cost of quality must be a key element in making economic decisions based on events that facilitate profitability growth.

Obtaining performance at the entity's level means, directly or indirectly, evaluating the competitiveness concepts, competitive advantage, efficiency and effectiveness. In the specialty literature it is encountered also the view according to which (Noyé, 2002, pp. 6-7) performance is not simply finding the results but rather is the result of a comparison between results and objectives. For an entity to be efficient it means it should achieve or exceed objectives.

Controlling has become indispensable for improving business performance and to maintain competitive advantage, because it supports top management in strategic and operational decision making. Considering that the details are those that distinguish a profitable business from a bankrupt one, each module of a business should be administered with all seriousness and there for the controller's role is crucial. The controller is the manager's confidence man. He makes sure that all the policies of procurement, production, and recruitment and employees motivation are respected. It also examines the costs and intervenes, where possible, to reduce them.

It is hard to believe that, currently, a manager may be involved directly and continuously in all sectors that make up the business. We live in an ever changing society giving the impression of a disordered economy, with laws increasingly more bizarre, hard to understand and accept. Managers and employees do not have time to check that everything they do is according to the company's policies. Under these conditions, the controlling system assumes an increasingly more important role, and the controller becomes a customary employee of any respected company.

Controlling is a set of qualitative and quantitative tools introduced to control the coordination of information in order to support decision processes. The term of controlling should not be confused with the concept of control. From a psychological and sociological perspective, control is an instrument of coordination of personnel in an entity. Monitoring aims to strengthen the coherence and consistency within the entity. Control is a cross organizational process of the entity. Finally, control is a continuous learning process through the accumulation and exchange of experience. Unlike control, controlling is a functional management system with the role to coordinate the planning, control and information processes towards achieving the desired results.

Controlling as a process and thinking vision, is at the intersection of the leading management task and the controller's tasks. In small and medium firms, the controlling function is taken over by senior staff or management or by the head of the accounting department. In large firms is called, ever more often, a controller responsible for controlling tasks. In recent years, controller has transformed from a simple service into a management consultant. The main tasks of the controller are:

- collection, data interpretation and modeling to achieve profitability analysis;
- verification and allocation of expenditure and income cost centers and profit;
- updating the required information in accordance with the requirements of the entity;
- providing the economic and financial expertise of the entity;
- monitoring costs and other elements of an accounting nature;
- risk analysis;
- monitoring compliance with budgets;
- coordination of the financial and accounting activity;
- participation in preparing production budgets;
- monitoring the application of the force.

Each economic entity follows a certain strategy whose performance is guaranteed by the adequate structuring of the exploitation processes and creating an appropriate organizational structure. In this organization the controlling system is anchored. Controlling should form a whole system in terms of tasks, organization and tools available. The task of controlling within the entity consists in sorting of individual components, existing normally check their usefulness, completion and organization as a system. Management system components towards which the controller's work is shifting are (Horváth et al., 2007, p. 5):

- planning and control systems and
- information system.

The most important source of information in the controlling system is accounting. The data processing has become irreplaceable. The information provided by financial and administrative accounting, regarding the correlation, tracking and determination of production costs and financial results, are important to the controller for determining the factors affecting the costs and results, helping him guide decision-maker in choosing the measures to be taken to increase business efficiency. For structuring the information system it is required to determine information needs, obtain information, process them through accounting and transmit them through reports.

The success of controlling depends on the capacity of the information system to more appropriately reflect the physical and material processes inside the business al well as their representation in financial flows in order to be able to obtain an accurate dynamic image of the differences between the planned and what was done effectively. Following the continuous improvement of processes and functions of the economic entity, controlling as a system must provide early warning of problems that may occur within the entity. Controlling contributes to performance growth within the entity, ensuring its competitiveness and sustainable presence on the market.

The efficiency of controlling is one of the main problems of managers. The solution to this problem is to transform a traditional accounting into a management oriented accounting, respectively managerial accounting. Managerial Accounting influences people’s behavior through its nature and the manner in which it is presented, thus orientating strategic decisions and affecting the entity's structure and its performance evaluation system (Jianu, 2007, p. 466). A coherent entity involves performance measuring structure involves responsibility centers that can be (Gervais, 2005, pp. 494-496): cost centers, profit centers and investment centers. Such a center is an organizational entity that owns a business delegation regarding resources (material, human, financial) and a capacity for negotiation on the objectives.

Management oriented accounting should be able to oversee the successful implementation of decisions, from which are shown the true values which are compared with standard values. After identifying possible differences, it shows the causes and proposes measures that are to be taken to reduce or even eliminate differences.

## 2. Target-costing method and controlling

Accounting professionals focus on the need to account a wide range of technological changes that make important contributions in achieving and sustaining a competitive advantage. Emphasis is placed on operational management rather than accounting activities. From this point of view, accountancy in terms of advanced technologies is closer to the target cost. The target-costing method is an essential step in developing management methods established by the analysis current based on creating value for the customer. Steps that must be taken to apply the target-costing method are: setting target prices, setting profit target and setting the target cost. Target-costing method allow target costing calculation and costs estimate of products in each of the three phases of the life cycle (launch, growth, maturity). By comparing and interpreting the results one may determine the estimated total results for each phase of product life cycle.

The controlling of target costs aims to ensure long term competitiveness of a new product released. The target-costing method involves an approach that aims to reduce costs throughout the process of continuous improvement of technologies and manufacturing processes involving, at the same time, a new style of human resource management. Although an apparently simple method, the target-costing method conflicts with the tradition of the classical management control. The Japanese have developed the target-costing method integrating value analysis to reduce product costs. The value analysis is based on a functional analysis of the products. It uses the concepts of value, cost and function. Target costs are based on the rule that dictates market selling prices and not costs to the economic entity. In these conditions one should be monitoring the analysis of the ratio value - cost - benefit - cost.

To do an analysis of the target-costing method it is considered the following example:

A company wants to launch a new product. Maximum available production capacity is 40,000 units. It will be operated at 60% in the new product launch phase, 90% in the growth phase and 100% in the maturity stage. Estimated selling price in the launch phase is 30 lei. Estimated selling price will increase in the growth phase by 2%. Due to similar products on the market, estimated selling price is reduced 3% in the maturity stage compared with in the launch phase. The management company aims to obtain a margin on sales price of 10% in the launch phase, 15% in the growth phase and 20% in maturity stage. In the launch phase material expenses are 10 lei/piece, labor expenses are 4 lei/piece, and advertising expenses are 3 lei/piece. In the growth phase, raw material expenses increase by 3%, labor expenses are increased by 2% and advertising expenses are reduced by 5%. In the mature stage, raw material expenses increased by 4%, labor expenses are increased by 3% and advertising expenses are reduced by 15% compared with in the lauch phase. Fixed indirect expenses of maintenance and operation are at 80 000 lei, and for the variables ones are 5 lei/piece.

Table 1 presents the main steps of the target-costing method.

Table 1

**Target-costing method**

| Information | Product life cycle phases | | |
|---|---|---|---|
| | Launch | Growth | Maturity |
| a)Target Cost Calculation | | | |
| Selling price | 30 | 30.6 | 29.7 |
| Desired margin | 30 x 10% = 3 | 30.6 x 15% = 4.59 | 29.7 x 20% = 5.94 |
| Target Cost | 27 | 26.01 | 23.76 |
| b) Estimated Cost Calculation | | | |
| Production | 40,000 x 60% = 24,000 | 40,000 x 90% = 36,000 | 40,000 x 100%= 40,000 |
| *Direct Expenses*, of which: | 14 | 14.38 | 14.52 |
| - Raw materials | 10 | 10.3 | 10.4 |
| - Labor expenses | 4 | 4.08 | 4.12 |
| *Indirect Expenses,* of which: | 11.33 | 10.07 | 9.55 |
| - Fixed maintenance and operating expenses | 5 | 5 | 5 |
| - Variable maintenance and operating expenses | 80,000 : 24,000 = 3.33 | 80,000 : 36,000 = 2.22 | 80,000 : 40,000 = 2 |
| - Advertising expenditure | 3 | 2.85 | 2.55 |
| Unit cost estimate | 25.33 | 24.45 | 24.07 |
| c) Comparing results | | | |
| Target Cost | 27 | 26.01 | 23.76 |
| Estimated Cost | 25.33 | 24.45 | 24.07 |
| Estimated cost - Target cost | - 1.67 | - 1.56 | 0.31 |
| d) Calculation results | | | |
| Estimated Turnover | 720,000 | 1,101,600 | 1,188,000 |
| The total estimated cost | 607,920 | 880,200 | 962,800 |
| Estimated results | 112,080 | 221,400 | 225,200 |

Analyzing the data in Table 1 we can see that, based on estimations, the best result is obtained in the maturity stage of the new product. As outlined in the shown example, within the target-costing method, cost is not considered as an autonomous and independent variable, but as a variable dependent on the decisions taken in the stage of product design. Perspective on cost is transverse and cost reduction is achieved in the process. In the target-costing approach, the purchasing department plays an essential role as the savings made by this department are an essential source for cost savings.

The target-costing method is based on two fundamental premises. Firstly, it is considered that the overall value of the product for a customer can be properly decomposed into independent and cumulative attributes. Secondly, for each component the proportion of the total cost must be equal to the proportion of the total value provided to customers.

Controlling target costs should focused on:

- knowing the different phases of product life;
- collaboration between different departments of the economic entity (supply, marketing, accounting, sales);

- cost analysis on each phase of product life;
- making adjustments between the characteristics of a product, its cost and its competitive selling price;
- make some comparisons between forecasts and achievements;
- reduce product design time;
- reducing development costs and ensures faster amortization;
- better organization of relations with suppliers and collaborators.

To be successful, the target-costing approach should begin by determining the marketing department of a commercial concept bearer of meaning and value to the customer. Based on market studies and taking into account the strategic guidelines of the enterprise and the competition's situation, the objective is defined in terms of selling price and product features. Subsequently, based on expected selling price and expected profit taking into account the fixed cost of undertaking the overall objective for the product. It must at the same time respect the main functions for which the client uses it. For this we use a horizontal approach, various existing alternatives are studied and discussed in terms of business processes, sub-assemblies and services. Good knowledge of processes and their costs is important to achieve primary and secondary functions expected by the potential customer.

In order to have an effective controlling it is necessary to measure the contribution of each component in creating value and establish the maximum levels of cost. Thus we pass from a market oriented vision to a detailed analysis which aims to develop technical solutions. Scheduling actions to reduce the costs must take into account all direct and indirect costs that occur throughout the product lifecycle.

Based on the above considerations we can say that the target-costing method allows costs analysis in an efficient controlling system. Although the target-costing method is a modern method of calculating costs, its use is limited to a few industrial sectors because this method focuses on unit production cost.

## 3. Facilitating the decision making process through cost analysis

In an effective controlling system, cost cannot be limited only to the target-costing method. An important task of such a system is making available to the management information on costs that can facilitate decision making. There are considered relevant to the decision making process those costs that depend on the action parameters of a decision problem. Alternatives are critical in selecting only those costs that have different sizes at various solutions to achieve.

One of the fundamental issues to be considered in decision making process is reffering to determination the optimal production and sales program. Addressing such issues in an effective controlling system requires a cost analysis such as highlighted through the example to be presented below.

Consider an economic entity in the woodworking industry. In one of its sections it carries out four articles of furniture. The sections fixed costs are of 72,000 lei. In management accounting these costs are distributed on four articles of furniture in the report 2:1:2:3 ratios. Fixed costs spread over the department in the entity are 25,000 lei. They are distributed on the four articles of furniture in the report 3:2:1:4. In Table 2 are presented data on the selling price, variable cost and maximum sales for the four types of products.

Table 2

**Initial data products**

| Product | Sales price per unit | Variable cost per unit | Maximum sales (units) |
|---|---|---|---|
| A | 800 | 450 | 50 |
| B | 500 | 270 | 40 |
| C | 850 | 360 | 60 |
| D | 1,000 | 400 | 70 |

Based on calculations presented in Table 3 we can review each product's, revenues received and profit generated. We took into account in the calculation the quantities sold out in the Table 2.

Table 3

**Statement of costs, revenues and results**

| Product | Revenue | Variable costs | Fixed costs of the sections | Fixed costs of the entity | Profit |
|---|---|---|---|---|---|
| A | 40,000 | 22,500 | 18,000 | 7,500 | - 8,000 |
| B | 20,000 | 10,800 | 9,000 | 5,000 | - 4,800 |
| C | 51,000 | 21,600 | 18,000 | 2,500 | +8,900 |
| D | 70,000 | 28,000 | 27,000 | 10,000 | +5,000 |
| Total | 181,000 | 82,900 | 72,000 | 25,000 | +1100 |

Observing the data in Table 3 and aiming to achieve a better return to the department carrying out the four products, managers can propose elimination of a product which they consider unprofitable. The decision to abandon the manufacture of product "A" will be taken after consultation with the analysis made in the controlling department. Another decision to be taken by managers relates to the effectiveness of advertising expenditure. Advertising company may allocate the amount of 3,600 lei covering the financial needs for advertising a single product out of the four. Managers must decide which product will be advertised, since, using public advertising, product sales would grow by 10%. And that decision will be made after consulting specialists in the controlling department.

Cost analysis relevant to the decision in an effective controlling system highlights the following conclusions:

- The total result of product A showed a loss of 8,000 lei. But the product helps with 17,500 lei to cover fixed costs, which would have occurred and whether the product was removed from the production schedule. If product disposal revenue were reduced by 40,000 lei, variable costs would decrease by 22,500 lei, fixed costs would remain the same. Therefore, merely removing the product is not a solution because it would diminish the result by 17,500 lei. Disposal of product A would be effective only if it was accompanied by reducing fixed costs or finding a better formula for allocating fixed costs.

- In regards to advertising, sales rise by 10% increases in turnover and variable costs by 10%. Fixed costs remain constant. Therefore it will advertise the product to the difference between revenue and variable costs will be higher. This product is the product D. Because of advertising, profit for the product D would increase by 600 lei, the amount was determined based on the following reasoning: (revenue - variable costs) x 10% - cost of advertising = (70,000 – 28,000) x 10% - 3,600 = 600 lei.

In the above view, we can say that accurate information on costs is an important basis for management decisions on the short, medium and long run, in terms of production and strategic decisions on prices. Managers need a costing oriented decision that can provide relevant information to determine management strategies.

## Conclusions

Economic entities are required to continuously verify their products competitiveness in terms of price and performance. Optimizing the value generator chain has become a permanent task. Many companies follow their customers worldwide and are internationalizing accordingly their value generator chain. Globally viewed, this environment requires ever more decision-making and implementation capacity from companies. Under these conditions, a modern firm cannot develop without an efficient controlling system.

Controlling instruments are based on a flexible database, drawing on the basic information of accounting cost and accounting results. Since each component of a business should be taken with all seriousness, the controller has become a customary employee of any company that is respected. Specializing in analysis of costs and budgets for cash-flow, the controller provides the stability that the company needs.

The controlling department works as a management consultant. The controller prepares the decision, prepares all the information the manager needs to decide, but will not take any action. Management will decide based on data supplied by the controlling department.

Accounting is the main source of information for controlling. To provide operational information the costing calculation system must be current, flexible, profitable, future and decisions oriented. In an effective controlling system, the cost analysis should focus on relevant costs for decision. These costs depend on the action parameters of a decision problem. For a company the best cost is not always the best calculated, but that cost which is determined at the appropriate time and which the user can reach.

Although a controversial method in the business world, we consider that the target-costing method is important for an effective controlling system because it allows a cost analysis on each stage of the life cycle of a product. Applying the target-costing method depends on the company's strategies, status and forms of competition, technological and innovation dynamics, relationships with suppliers, the degree of vertical integration, product life and during different phases of life products. Using this method is indicated in activities where competition is very strong, products life is short and product design costs are high.

To compete, companies must develop controlling systems to meet the requirement of customer orientation. Cost analysis relevant to the decision and the target - costing method allow an effective controlling to help create value for clients.

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