INVOLVEMENT OF MANAGERIAL ACCOUNTING IN ENSURING THE COMAPNY'S COMPETITIVENESS ON THE MARKET

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ABSTRACT: The problem of costs is that they are an extremely complex variable of the company's management, because of its importance in the management of each business. All managers need accurate and timely information to carry out pricing, planning, operation activities and to take other type of decisions. Managerial accounting is considered as an indispensable system in the accounting activity of the organisation for decision making. Regardless of where they are, managers administrate their field of responsibility, start actions that will lead to effects only by means of resources consumption. But, in order for the effects to be favourable to the organisation, managerial accounting demonstrates its usefulness in establishing what is profitable, in terms of costs as decisive factors for determining prices, this system being implemented through the managerial accounting, as part of the accounting activity performed within the organisation.

KEY WORDS: managerial accounting; cost; price; management; expenses; method.

JEL CLASSIFICATION: M41; M10.

1. KNOWLEDGE AND COST ANALYSIS IN DETERMINING THE PRICE POLICY

Ensuring the company's competitiveness on the market is mainly based on the quality of products and services offered and on their price. Therefore, when the company will determine the optimal price-quality ratio, managing to attract customers but also to gain their loyalty, it may consider that one of the market competitiveness conditions is achieved.

Once the company has manufactured a product, it has to decide how it will determine the price. Unfortunately, there are no easy ways to give the answer. It may

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be kind of dangerous to decide upon the price because the stakes are high. If the company decides on a high price, consequences on the volume of sales may be negative; if the price is too low, possible profits will be sacrificed (Ciuhureanu & Bălan, 2009, pp 584-589).

The price is the key to a company's profitability, both for the short and the long term (Doyle, 1998, p. 227). The construction of the designed cost, the price of offer, identifying and dealing with the deviations of actual costs from the default level is the ABC in economics, in the company's general management and particularly in the managerial accounting. There is no generally valid rule or system that, if applied correctly, would invariably lead to the "fair" price. Price decisions are mostly quantitative and arithmetic, but there is always a subjective element in managers' judgement and in traders' and consumers' reaction to a price decision.

Costs provide the starting point for decisions regarding pricing (Parkinson, 1995, p. 48). Several other problems should be overlapped, including the characteristics of the products or services that are to be put on the market, finding the markets and choosing the promotion methods and the proper distribution channels.

The accounting specialist, together with the marketing manager, the chief of product or the general manager can not fix the price of a product independently of the general objectives of the company. Most often, the company tries, through the price policy, multiple objectives, on which we would not insist, these ones being presented more detailed in the specialty literature (Charpentier et. al., 2000, pp. 417-418; Dumitru, 2004, p. 206):

- *Survival*. In a highly competitive market, the company's existence is being threatened, hence a low prices policy to maintain the activity, but with a low and often insufficient profitability;
- *Maximizing profit*, which must be defended either from the position of a technological monopoly, or for the innovative products for which the competition is not yet pressing (ensuring recovery of investments);
- *Maximizing turnover*, more than the benefit, objective sought when costs are not well known and are thus difficult to be distributed;
- *Maximizing growth* involves the exploitation of volume in order to benefit from scale economies. It is the optics of penetration policies;
- *Differentiation*. It requires the immediate valuing of innovations, positioning on the "quality" axis, by practicing high prices;
- *Exploiting image* refers to the defence of an exclusive image through a systematically higher price policy.

Objectives represent a framework. In terms if the decision, this can not intervene but after analysing the variables that are directly influencing the price: *costs, demand, competition*, elements related to image or policy (laws against discrimination of customers through price, maintaining a brand image etc.) (Albu & Albu, 2009, p. 47). In the specialised literature (Nicolescu, 1998, pp. 497-506), presenting the pricing procedure involves the following stages: Cost analysis on each component; Market analysis, aspects related to price levels and margins , the situation of demand and offer, competition being relevant; Determination of price limits, depending on the product's

competitiveness and the prices used by the competition; Determining price objectives; Calculating the price structure; Price quotations and quotations for sale.

Economic theory and practice have, however, prefigured some *efficient ways* to approach the price issue (Andronic, 2000, pp. 123-126):

a. "*Mark-up-Pricing*" of fixing the price is meant to maximize the long-term profit. It consists of applying a profit margin to the average cost that would ensure reasonable remuneration of the allocated capital, covering the risks of the activity;

b. "*Target rate of Return Pricing*" method is used by the dominant companies, able to impose their own price by calculating the margin depending on the desired performance of the invested capitals. The capital's performance (r) can be determined based on the ratio between the obtained profit (P) and the allocated capital (K). By dividing the total obtained profit from the previous ration to the total cost (C), the profit margin rate is obtained (m). The price (p) will be determined based on the:

$$p = \frac{C}{q} \times (1+m) \tag{1}$$

where: q = quantity of products obtained.

c. *"Direct costing"* method requires the acquisition of the price by adding a margin on the variable cost to the average variable cost, which ensures the recovery of fixed costs and a profit;

d. "*Target-cost*" method is characterized by the fact that exogenous factors (market price) contributes to the calculation of the product's cost. The target-cost method is also associated to the managerial "Just in Time" method of production and it usually incorporates the effects of learning in time;

e. Maximization of sales method under the constraint of a minimum profit is a reasonable compromise between the interests of the management and the economic usefulness of the shareholders. The method consists of maximizing the total income from sales so that the profit is higher or equal to the minimum satisfactory level of the profit.

The practical analysis of cost analysis should be by excellence a major component of the company's management that would provide the achievement of competitive costs, so that the pricing decision competes in obtaining a profit that would lead to the possibility of the company's future development.

Cost analysis is a fundamental step in the foundation of an optimal price policy that would achieve the company's objectives. Among the most important *cost analysis options* available to the management of the financial activity, we mention tracking the deviations, the value analysis, the break-even, ABC method etc. In terms of *tracking deviations*, we believe that several factorial analysis methods could be used, upon which the strengths and weaknesses of the company could be determined regarding the costs and their impact on the prices. Among the most efficient methods we mention (Petrescu et al., 2003, pp. 312-317):

a. Total cost analysis in conjunction with the company's incomes has the role of outlining their evolution, the factors influencing them, as well as identifying the reserves that can be valued for reducing them. Therefore, the following instrument is used: *efficiency rate of total costs* (Rct), calculated according to the formula:

$$R_{ct} = \frac{\sum_{i=1}^{n} chi}{\sum_{i=1}^{n} vi} \cdot 1000$$
(2)

where: chi = costs on each category of products; vi = income on each category of products.

b. Cost analysis at 1000 de lei turnover serves to measure the volume and evolution of the commercial activity of the economic entity. The analysis model of the instrument costs at 1000 lei turnover (C^{1000}) is the following:

$$C^{1000} = \frac{\sum_{i=1}^{n} qi \times ci}{\sum_{i=1}^{n} qi \times pi} \times 1000$$
(3)

where: qi = quantity sold of each product (physical volume); ci = cost per unit; pi = selling price per unit without VAT

c. Cost analysis of materials. For the cost analysis of materials at 1000 lei turnover (Cm^{1000}) the following formula is used:

$$Cm^{1000} = \frac{\sum_{i=1}^{n} qi \times cmi}{\sum_{i=1}^{n} qi \times pi}$$
(4)

where: qi = quantity sold of each product (physical volume); cmi = cost of materials per product unit; pi = selling price per unit without VAT

d. Analysis of labour costs. The analysis of the general situation of labour costs (costs with the actual salaries of the employees and the social expenses associated to them and supported by the company for its employees) tries to know the evolution and tendency f this type of expenses, by using indicators such as: their percentage in the total costs and the labour costs at 1000 lei turnover (Cs^{1000}).

$$Cs^{1000} = \frac{Fs}{CA} \qquad (5)$$

where: Fs = salaries fund; CA = turnover.

We further propose a series of *solutions* that the management should consider to improve the performances of the company:

a. if the company has significant excesses in financial expenses, it is considered as a main and immediate necessity the capitalization of the company through new capital contributions from the shareholders. The company's capitalization will have favourable short-term influences, materialised into the reduction of loans and implicitly of expenses with bank interest rates;

b. reducing as much as possible the imports of raw materials, materials and other assets needed for production in the total of purchased goods, with direct consequence on reducing financial expenses from differences in the rate of exchange;

c. collection in time of customer-claims, which will contribute to the payment on time of liabilities to third parties, with direct consequence on reducing costs with penalties and increases for delay;

d. increasing the level of integration of the company, by increasing the costs of living labour in the total expenses, with direct consequence on increasing the surplus of value resulting from the productive activity.

ABC method is based on a new way of the company's thinking, focusing on indirect costs and not on the total cost (Brăescu & Jinga, Online, p. 36). A number of issues related to the volume of acquisitions are frequently present in the organisation's activity, the potential payment, the establishment of stocks of different levels and values, etc. These require a differentiated approach from managers, depending on their features, ways of manifestation and influence on the general management.

ABC method concept starts with the idea that products are not the ones that consume resources, but the activities of the company do. Therefore, it is preferable to trim the organisation on activities rather than on functions and products.

ABC method involves identifying the main operational activities, classifying all costs on activities, reducing or eliminating invaluable activities and distributing costs by using as basis the activity that generates them. This approach meets the requirements of a systematic vision of the company and of an overall approach of productivity, closer to reality. We notice that the concept of activity represents the foundation of the method, the allocation of costs being more relevant because the relationships between resources, activities and products are emphasized. The basic assumption of this method is: products consume activities and activities consume resources (Epuran et al., 1999, p. 390). The need for cost-value couple, the increase of indirect costs, the development of information systems, are only some of the reasons that should contribute to the implementation of this method. The most important mutations in managerial accounting due to the use of ABC method may be considered the following (Albu, 2002, p. 34): the futility of the distinction between main-auxiliary, productive-non-productive centres, retaining an overall image on the organisation; due to the activity inducers, great part of the fixed costs become variable on the short-term, depending of several parameters; the impact of the sub-activity must be rethought; cost

objects are various, the accounting activity turning into a huge multi-criteria data base subject to simulations.

By the diversity of the calculation instruments, the integration in various management systems, the method provides multiple analysis possibilities; it supplies a reliable basis for the sale pricing policies, allows the introduction of target-cost and the management of the entire life cycle of the product, favours the calculation of several types of costs according on needs, ensuring good visibility on the production processes and the company's profitability.

Value analysis method is an investigation method of products aimed at increasing the usefulness of the product, while reducing the cost, the purpose being to ensure customer satisfaction (Niculescu, 1997, p. 188). In other words, through value analysis, the management of the financial activity may make the link between the costs and functions of the products and services. The information can be extremely useful for the general management in terms of reducing costs for certain unsolicited functions by the customers, improving the functions solicited more often, even if this involves increased costs, etc., all of these eventually leading to more efficient products/services and reduction of costs. For the company to obtain maximum income and thus maximum of value, its resources must be oriented towards the production/marketing of those goods and services that efficiently ensure customer requirements and needs. If resources are wasted or used inefficiently, costs will increase significantly, without a reflection of recovery and of course profitability will decrease (Avram, Online, 2002, p. 41). The stages of applying the value method are the following: identifying the functions of the product; measuring the cost of each function; determining the functions that should be maintained, improved, excluded, created; establishing the minimum cost so that each function is ensured under optimal conditions; allocating resources on functions in order of importance; the analysis of costs-functions relation (Niculescu, 1997, p. 188; Bogdan, 2004, p. 319).

Therefore, value analysis involves the identification and individualization of the product's functions, in order to understand the cost formation mechanisms and to detect the possibilities to differentiate those functions from similar ones carried out within competitive organisations. Differentiation to the advantage of your own company means its ability to fulfil strategic activities at costs lower than the competition (Nicolescu, 2002, p. 312). A better integration of all functions may lead to cost reduction.

2. INDICATORS USED IN THE ANALYSIS OF PRODUCTION ACTIVITY

Based on the physical production obtained, the company may establish the extent to which available resources were used and the customer satisfaction in terms of ability to honour contracts. Also, consistency between supply and demand can be ensured. Therefore, we can talk about a number of available indicators used in the analysis of production activity, indicators that can be used by those involved in managerial accounting.

Calculating the average range coefficient (Ks) is used to characterise the degree achievement of overall manufacturing programme of the enterprise, in case of a

heterogeneous production (Vâlceanu et al., 2004, p. 90). The ways to determine the average range coefficient are the following (Işfănescu et al., 1999, p. 77):

$$K_{s} = \frac{\sum_{i=1}^{n} q i_{\min} \times p i_{o}}{\sum_{i=1}^{n} q i_{0} \times p i_{0}}$$
(1)

$$K_{s} = \frac{\sum_{i=1}^{n} gi_{0} \times Ii_{o}}{100^{2}} + \frac{\sum_{i=1}^{n} gi_{0}}{100}$$
(2)

$$K_{s} = 1 - \frac{\sum_{i=1}^{n} (\Delta q i \times p i)}{\sum_{i=1}^{n} q i_{0} \times p i_{o}}$$
(3)

where:

 $\sum_{i=1}^{n} q i_{\min} \times p i_0 = \text{ recalculated value of production within the provisions,}$

determined by comparing the value achieved for each item with the value in the programme and taking into account the minimum level of the two(according to the indeterminacy offsets);

g' = weight of sets for which provisions were not made;

g'' = share of sets for which the programme was achieved, respectively exceeded;

Iq = index of achieving provisions for each set;

$$\sum_{i=1}^{\infty} (\Delta qi \times pi) = \text{sum of negative deviations per range.}$$

Analysing the situations that may arise, we can highlight the following: a. Ks = 1, when:

- production programme was achieved for all sets at 100%;
- production programme was achieved and exceeded for all sets, regardless of the proportion of achievement.

b. Ks < 1, when:

• production programme was not achieved, both inclusive and per sets, regardless of the proportion of non-achievement;

• production programme was achieved and exceed inclusive, but for at least one set the level provided was not made.

The evolution of average range coefficient reflects the proportion of carrying out the programme but it does not provide a conclusive image of the number of sets that the programme was conducted at. In order to correct this situation, it is recommended to determine the nomenclature coefficient (Kn), according to the relation:

$$K_n = 1 - \frac{n}{N} \tag{4}$$

where:

n = number of sets for which the programme was not achieved; N = total number of sets in the programme.

Because the production programme is achieved differently for each range, some changes occur in its structure, a structure reflected by the shares of each set in the company's production nomenclature in the total volume. Being expressed by the share of each range in the total production, the structure is influenced by the evaluation methods. To outline the structure's change, it is thus requested that, besides the value evaluation method, the other evaluation methods be used – when possible. Choosing one or another is not random, but depending on the pursued purpose. Failure to comply with such a principle leads to erroneous conclusions with serious implications on the decisions that are adopted (Işfănescu et al., 1999, p. 81).

In order to characterise the structure of production, the share of each range in the total production is calculated. By comparing the shares in each range, it can be noticed whether or not the initial structure of the production programme was observed. What managers are actually interested in is the intensity of this phenomenon from one period to another, the causes that led to it, so that in relation to them, the economic effects causing the changes in the structure of production can be appreciated. From this point of view, the production structure can be characterised by the average structure (Kst), determined according to the relations (Mărgulescu et al., 1994, p. 96):

$$K_{st} = 1 - \frac{\sum_{i=1}^{n} |\Delta gi|}{100}$$
 (5) or $K_{st} = 100 - \sum_{i=1}^{n} |\Delta gi|$ (6)

where: $\Delta g =$ change of each set's share.

This model explains the change intensity of the production structure.

$$K_{st} = \frac{Q_p}{Q_r} \tag{7}$$

where:

Qp = value of production undertaken for the production provided;

Qr = value of actual recalculated output.

Making an analysis related to the average range coefficient and the structure coefficient, the following situations can be distinguished (Vâlceanu et al., 2004, pp. 96-98; Spătaru, 2004, p. 110):

- a. Ks = 1 and Kst < 1: shows that the production programme was achieved for all sets, but in different proportions;
- b. Ks < 1 and Kst = 1: is a theoretical solution showing that the programme was not achieved for none of the sets, but in the same proportion;
- c. Ks = 1 and Kst = 1: theoretical solution showing that the programme was achieved and exceeded for all sets, in equal proportions
- d. Ks < 1 and Kst < 1: shows that the production programme was not achieved for one or several sets.

Within the operational analysis of the production programme, in order to characterise the production's rhythmicity, several methods can be used, among which the most commonly used are:

- a. production indices per time subdivisions. If they present significant variations as compared to the average index for the whole period, then there is the non-r rhythmicity situation;
- b. production's share per time subdivisions;
- c. synthetic coefficients of rhythmicity calculated as it follows (Spătaru, 2004, pp. 114-115; Vâlceanu et al., 2004, p. 1999):

$$Kr = \frac{100 - \Delta g}{100} \tag{8}$$

where: Δg = amount of the deviation of time subdivision share, established based on the relation: g1 - g0

$$Kr = 1 - \frac{\Delta q}{Q_0}$$
(9)

where:

 Δq = amount of negative deviations per time subdivisions; Qo = programmed output value.

Kr =
$$1 - \frac{1}{2\overline{x}} \sqrt{\sum_{i=1}^{n} (xi - \overline{x})^2}$$
 (10)

where:

x = average production per time subdivisions;

xi = production per time subdivisions.

3. COST-VOLUME-PROFIT ANALYSIS – MODERN INSTRUMENT OF FORECAST, ANALYSIS AND CONTROL

Cost-volume-profit analysis is an instrument used in forecasting, and also for control and it represents the analysis of cost evolution method, which emphasizes the relationships between cost, production volume and profit (Mărăcine, 1998, pp. 249-257). The method includes a number of techniques and procedures to solve the problems, based on understanding the characteristics of evolution models of the company's costs. Cost-volume-profit analysis studies the evolution of incomes, costs, total profits, as changes occur in the activity of the organisation causing the change of sale prices and/or of particular types of costs (Heius, 2011, p. 37). The techniques show the relationships between incomes, the structure of sales, costs, volume of production and profits and they include the break-even analysis and profit planning procedures. The general management may use the information to make short-term plans, evaluate performance and analyse decision alternative (Needles jr. et al., 2000, p. 910). Calculations and analyses based on cost-volume-profit relationship are an important instrument for the company's managers in view of improving the result of the activity. This is made by determining the influences they have on profit, changing the factors that stood at the basis of its establishment: the price of sale, the volume of production and bargain, variable costs, fixed costs and the structure of production and bargain sale (Oprea & Cârstea, 2002, pp. 384-410). The analysis of this correlation can be made by using the following *indicators*:

a. The point of balance, also known as the critical point, the dead spot or the break-even, is the point where incomes from sales are able to cover all variable costs of sales and fixed costs for the reporting period. They show the level from which any increase in the volume of production made and sold brings profit, same as any reduction of sales generates losses, certainly by observing the correlation between costs, prices and the type of production;

b. The point of optimum activity is the point where both the production and costs are within regular limits, enabling to get the scheduled outcome;

c. The safety margin shows how much the sales can drop to reach the critical point. It is calculated as the difference between the total volume of sales and the volume of sales at the level of the point of balance, evaluated at price of sale, namely between the total turnover and the turnover at the level of the point of balance;

d. Dynamic security index is the instrument through which the percentage to reduce the turnover is determined in order for the organisation to reach the critical point. It is calculated as the ratio between the total turnover, minus the turnover of the point of balance and the total turnover;

e. Coverage factor represents the percentage between the turnover needed to cover costs and to get profit. It is very important cu calculate this indicator for taking current decisions regarding sale, because it shows the percentage from the volume of sales needed to cover the fixed costs and to make profit. The higher this indicator's value is, the bigger the profit will be;

f. Absorption index represents the percentage from the turnover needed to cover the fixed costs. The lower this indicator's value is, the easier it is for the organisation to reach the point of balance;

g. Volatility coefficient or the operational leverage is the percentage of the obtained result variation for a percentage variation of the turnover, thus representing the elasticity of the result in relation to the turnover. It may outline the influence on the result of the organisation's position to the point of balance, proving the dependence of the economic risk on the fluctuation of the turnover and its position to the critical point; the farthest the turnover is from the critical point, the less risky the activity of the organisation's inability to adapt on time and with the minimum of efforts to the fluctuations of the economic and social environment conditions (Epuran et al., 1999, p. 358).

For control purposes, cost-volume-profit analysis is a method used to measure the company's performances by comparing real costs to the estimated costs. The result is a performance relation, based on which managers may perform the control of operations. Moreover, the cost-volume-profit analysis may be applied to quantify the effects of the various action alternatives: the change of fixed and variable costs, the increase or reduction of sales, the increase or reduction of selling price, the introduction or withdrawal of a line of production and taking special orders, analysing the production structure etc. (Needles jr. et al., 2000, p. 912).

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