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The Relevance of Cost-Value-Performance Trinom for Organization Management

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Abstract

A large number of economic entities follow several objectives that characterize some aspects of their organization. But they have only one fundamental objective and the performance measurement depends on a good definition of performance. In order to achieve their goals in a continuous and profitable manner, organizations need to equip themselves with structures that entrust responsibility centers with various things to do. The administrative accounting has as its objectives the knowledge of the costs related to the functions of the economic entities, the determination of the bases for the valuation of certain elements of the balance sheet and the calculation of the cost of production in order to compare it with the selling price in order to determine the efficiency of the business, and on the other hand, cost forecasting to determine actual cost deviations, as well as providing all necessary information for decision-making on the management of internal work.

Key terms: managerial accounting, cost, value, performance, binomial value-cost, performance-value-decision

JEL Classification: M10, M21, M41, L21, G32

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1. Introduction

The activity of any organization must relate to the market and is generally influenced by a range of internal and external decision-makers. "The decision-making environment can be characterized by certainty, a state that is not present very much in the current context of the market economy and the permanent evolution of the factors that influence the company. Therefore, most decisions are made under uncertainty or risk. This environment cannot be changed, but it can be led to a state closer to certainty. Thus, the problem that arises in adopting a correct decision is that of the information available." (Zefinescu, 2015) We can conclude that the decision is influenced by the manager's forecasts, and consists of choosing several variants to follow, generally the ones preceding the action.

2. Methodology of research

The research activity may be inductive or deductive and consists in putting into practice some of the already existing theoretical elements.

3. Revision of the specialized literature

Regardless of the nature of the organization, the decision is the main factor that delimits financial accounting from managerial accounting. Financial accounting provides information that helps us to reflect on its functioning state and managerial accounting, as the main instrument of management control, becomes an information system. In general, the decisions we have to take *cause* the need for information. We observe that the information is of value to the manager when he reduces the uncertainty of the future, being able to influence and change *sensitively* a consequence of a decision taken. As the main tool of management control, managerial accounting is an informational system and the results obtained by processing such a system must respond to the needs of its users.

In the opinion of Nicolescu (1998), the decision-making process consists of all the stages through which the managerial decision is being prepared, adopted, applied and evolved. The knowledge of costs determines the basis for evaluating certain elements of the balance sheet, helps with future forecasts for the purpose of determining deviations, this information being very important in conducting an internal activity within organizations (Călin *et al.*, 2008). Financial accounting measures the performance of an economic entity but does not show how this performance has been achieved. Most of the expenditures that are embedded in costs are provided by financial accounting. But there are three major differences between the expenditure recorded in financial accounting and cost-included expenditure. These three major differences include: non-embedded expenditures, supplements, substitution costs (Jianu, 2007). In view of a model-based analysis, accounting performs three roles. The first one is of an operational or administrative nature, another role corresponds, in general terms, to the keeping of the accounts, and is limited to the recording of the actual operations performed at their real price. Unlike the first role, the next two correspond to a strategic role found in decision-making and performance measurement, and to a political role in the social relations between economic actors, clarification through the study of the theory of the agency (Iacob *et al.*, 2007).

By discussing the issue of value in accounting, we cannot resume the organic link between price and value, assuming that the price found in a transaction on a market is the expression of a value, or vice versa, that the value of a good is the basis of the price. The cost is the sacrifice measured by the price needed to purchase, produce or maintain goods or services. Prices paid for materials, labor, indirect costs of production, in the manufacture of goods, are costs. Pricing terms are, from an accounting perspective, more precise and reliable, with an argument of neutrality. The value in the context of the dichotomy balance-profit and loss account in the previously discussed roles of trinomial is relevant to determining a result, implicit performance or enrichment. In the value-cost binomial, the basic reference is the cost or the upstream market. Applying fair value (Lepădatu, 2012) in accounting seems to allow financial statements to be prepared to give third parties better information on the present and future performance of the economic entity and hence the possibility of substantiating their decisions.

Utility value is an updated value obtained by estimating the expected future cash flows from the continuing use of an asset and its disposal at the end of its useful life (Lepădatu, 2012). Under an active market, fair value is in fact the market price (market-to-market). In other words, when the existence of markets is not questionable and they are effective, the fair value of a good corresponds theoretically to the present value of a cash flow suite expected from the future issue. Instead, when there is evidence of non-existence of markets or when they exist, but are inefficient, the fair value has to be calculated, which implies its determination based on a predictive model. In the economic literature of our country, the economic entity performance is defined as “an economic entity is performing if it is both productive and effective” (Tabără and Briciu, 2012), the productivity representing

the ratio between the obtained results and the means employed for obtaining the results, and the effectiveness of the relationship between the results obtained and the expected results.

The concept of performance is associated with three notions: economicity (obtaining the necessary resources at the lowest cost), efficiency (to maximize the results obtained from a given amount of resources, or to minimize the amount of resources for a predetermined result), effectiveness (results achieved to achieve the expected results) (Briciu *et al.*, 2013). Performance is the achievement of the proposed objectives.

Performance = Effectiveness + Efficiency + Effectiveness

4. Cost-price-value compass, a useful tool in assuring the performance of an economic entity

There are differences between the notions of cost and value. The two notions are often confused. Value is generally defined as a sum of costs. In fact, value is given by the market, the customer being the one who determines the value, by appreciating the product (Jianu, 2007). For an existing product on the market, there is always value: the sales price.

Jianu (2007) believes that value cannot be measured, so we have to learn to manage it. A cost is never perfect or absolute because it results from a modelling of the economic entity and multiple conventions, such as the charging of certain expenses. The price is a strategic variable of any organization that reflects the usefulness of the product perceived by the customer. The decision to buy does not only depend on the characteristics of the product, the customer does not always take into account the quality/price ratio, it also takes into account other factors, such as the image of the organizational entity.

Knowing the cost structure is of major importance in substantiating the price decision, where the largest share in cost formation is fixed costs, organizations set out as the following price policy objectives: fixed cost recovery and pricing to maximize capacity utilization. The cost calculation must provide cost per product/service unit used as a lower reference price limit. There is no question of pricing by costing.

The price is determined by demand rather than by cost. But demand is determined by cost. Demand is the concept linking the quantities that are purchased to the sacrifices that need to be made to obtain these quantities.

The increase of profit results from the increase in the quantities sold and from the margin of profit margins. Fixing a price for a new product is obviously an important variable of the organization's strategy, they can set a lower price so as not to lose some of the buyers and not to encourage new competitors by giving them very comfortable margins.

5. Methods of calculating and analyzing prices relevant to measuring organization performance

Under risk and uncertainty, maximizing the profit is not the only major goal of organizations. It can be correlated with other goals, such as long-term survival, maintaining market position, increasing turnover, innovation, minimizing risk. In this context, cost-based pricing and profit determination become a very complex task, with economic theory highlighting several effective ways to address the issue.

✓ **Mark-up pricing method** aims at maximizing long-term profit. This method implies the application at the average cost of a profit margin that ensures reasonable remuneration of the allocated capital, covering the risks associated with the considered activity and without attracting new competitors. The classic method of setting the margin involves calculating a standard cost that is a complete cost, estimating the average variable

cost and unitary cost for a normal production capacity level. On the basis of the above, the price formation mechanism is:

$$P = \left(Cv + \frac{CF}{q}\right) + m\left(Cv + \frac{CF}{q}\right)$$

resulting that:

$$P = (1 + m)\frac{C}{q}$$

Cv – Average variable cost
CF – Total fixed cost
q – The quantity produced from a good
m – Constant net profit margin
C – Total cost

✓ **Target rate of return pricing method** is used by dominant firms, able to impose their own price; determined by calculating the margins according to the desired return on invested capital. Thus, if *P* is the company's profit, and *K* is the allocated capital, the ratio *P*/*K* is the return on invested capital used to determine the profit by applying this rate to the value of the capital allocated to the product. As profit is the difference between income and expense, it follows that the price is calculated by dividing the amount of expenses and profit on the quantity of products obtained.

✓ **Direct costing method** assumes that the price is formed by adding to the unitary cost a margin to cover the fixed expenses and lead to a profit.

✓ **Target costing method** is characterized by price fixing by the market. Starting from this price and lowering the net profit margin desired by the market, the target cost is determined. The estimated cost of the economic entity to obtain the product under current production conditions is then calculated. This estimated cost is in most cases higher than the target cost. The deviation between the two costs is achieved in two ways: through a value engineering that allows for a target cost to be set at the product design stage and by a continuous and scheduled improvement of costs over the entire life cycle of the product (Kaizen Costing).

6. Methods of calculation and cost analysis relevant to measuring organization performance

Of the methods that adapt very well we recall and try to describe a few: the standard cost method, budget, unit of value added (UVA), cost-volume-profit analysis as a tool for measuring organization performance.

✓ **Standard cost method and performance evaluation.** Once established, standard costs are instruments of planning and budgeting. In addition, the differences between standard and actual costs, called deviations, provide an indicator for performance evaluation that can be used to control costs. We are trying to track deviations from the standard cost by following example.

Example

Workshop A, which planned to obtain 100 products/month in year N for which it sets a standard consumption of 2 kg of raw material M per product, purchased at a standard price of 6 m.u./kg. At the end of January, it was found that the economic entity obtained 140 products consuming 2.5 kg of raw material M per product. One kg of raw material was purchased with 7 m.u. To resolve the issue, we will use the following notations:

- Standard consumption (cs) = 2 kg/product;
- Standard price (ps) = 6 m.u./kg;
- Standard production (qs) = 100 products;
- Real consumption (cr) = 2.5 kg/product;
- Real price (pr) = 7 m.u./kg;
- Real production (qr) = 140 products.

Below we will calculate and explain the following deviations:

- **Total deviation (Δt)** is the deviation between standard consumption for standard production and real consumption for actual production.

$\Delta t = qs \times (cs \times ps) - qr \times (cr \times pr) = 100 \times (2 \times 6) - 140 \times (2.5 \times 7) = -1{,}250$ m.u.

- **Deviation from production (Δq)** is determined as the difference between standard consumption for standard production and standard consumption for actual production.

$\Delta q = qs \times (cs \times ps) - qr \times (cs \times ps) = 100 \times (2 \times 6) - 140 \times (2 \times 6) = -480$ m.u.

- **Significant deviation (Δs)** is calculated as the difference between the standard consumption for actual production and actual consumption for actual production.

$\Delta s = qr \times (cs \times ps) - qr \times (cr \times pr) = 140 \times (2 \times 6) - 140 \times (2.5 \times 7) = -770$ m.u.

Unfavorable deviation of 770 m.u. shows that the economic entity has spent more than originally planned for a quantity of 140 products. To determine the causes, we calculate the quantity deviations and price deviations.

- **Deviation of quantity (Δc)** shows whether the economic entity has consumed more or less than the standard set for the actual quantity obtained.

$\Delta c = qr \times (cs \times ps) - qr \times (cr \times ps) = 140 \times (2 \times 6) - 140 \times (2.5 \times 6) = -420$ m.u.

Unfavorable deviation shows that the economic entity consumed more than initially expected, which led to a higher expenditure record of 420 m.u. than the standard one for actual production.

- **Price deviation (Δpr)** shows the amount the economic entity paid, more or less than it was set by the standard to purchase the quantities of raw materials needed for consumption.

$\Delta pr = qr \times (cs \times ps) - qr \times (cr \times pr) = 140 \times (2 \times 6) - 140 \times (2.5 \times 7) = -770$ m.u.

The unfavorable deviation shows that the economic entity acquired the quantity necessary to obtain actual production at an acquisition cost higher than the original one, which led to a surplus of 770 m.u.

✓ **The budget** represents the reference, the goal, the objective according to which various actors of the organizations will organize their activity. The first constraint in budgeting requires that it be built as expeditiously and as detailed as possible, but equally designed by data not only from an exploration of the past, but also from a real assessment of the economic entity. This will be a guarantee of indispensability and precision that will enable it to become a genuine management tool.

✓ **UVA method** is based on the creation of a unit of measure of value added for the functions of the economic entity: UVA, using the following reasoning: modelling organizations by description, working ranges

for all functions; affecting, at the level of each workstation, the consumption of resources, based on a technical-economic analysis; creating a unit of measure of value added, UVA, and calculating the value of each workstation expressed in UVA indices, which transforms a multi-product/multi-activity economic entity into a mono-product/mono-activity economic entity; valorisation of each product/activity in UVA equivalents (Dumitru and Calu, 2008); valorisation of the modelling of the economic entity by describing the *ranges* of work for all functions.

✓ **Relevance of cost-volume-profit analysis.** Cost-volume-profit analysis is a very useful management tool in analyzing the performance of an entity by establishing a profitability threshold, analyzing the entity's vulnerability to the risk factors surrounding it, and analyzing useful decision-making, determining the quantities needed to be sold to reach the profitability threshold and to obtain a certain target operating profit and a certain net target profit (Horngren *et al.*, 2006).

Cost-volume-profit analysis involves separating the entity's expenditure into variable costs and total fixed costs. The variable cost margin is the difference between turnover and variable costs.

7. Conclusions

According to the suggested title, the paper presents the relevance of the cost-value-performance trinom for the management of the organizations and achieves all the objectives proposed by the researcher. Thus, the literature is synthesized and managed to address the proposed theoretical notions that are the subject of this study, and from these notions we have presented some empirical studies in order to analyze some methods of calculating and analyzing prices and costs relevant to the management of organizations. According to the method of calculating the standard costs by comparing the actual results with the expected ones to take the necessary corrective measures, this comparison leads to a deviation analysis. The assessment of past performance must be accompanied by their analysis, the latter aiming to provide the individual with the means to improve performance in the future. Here too, we have defined the budget, as the reference, the goal, the objective according to which various actors of the economic entity will operate.

The unit of value added method is an important support in making operational and strategic decisions. It is the source of profit improvement and perenniality within organizations.

The main contribution of this method is that it allows precision in the cost assessment, without competition among other costing methods, in that it directly accounts for more than 90% of the organization's expenses. Cost-volume-profit analysis is also useful in defining the pricing policy. Cost-volume-profit analysis is also useful in analyzing the performance of economic entities by compiling performance ratios as a result of the sensitivity analysis. We can conclude that the use of cost-related information makes it easier to make decisions about the volume and structure of the business in order to increase profits. Sensitivity analysis can be done in various situations combining the questions to which we have been trying to find an answer by compiling the previous performance reports, allowing the calculation of the profitability threshold, measuring the vulnerability of the economic entity, defining the pricing policy, analyzing the sensitivity of economic entities.

Cost-volume-profit analysis also has the disadvantage of not considering inventory variation, as it starts from the hypothesis that everything that is produced is also sold, and reality shows that these cases are very rare.

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