

ESTIMATING THE COST-VALUE RELATIONSHIP USING INSTRUMENTS OF MANAGEMENT ACCOUNTANCY

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Abstract:

According to the Declaration of the International Federation of Accountants (IFAC, 1998), in the management accounting evolution the period after 1995 is characterized by the interest in creating or producing value through efficacious and efficient use of resources using the techniques which analyze the value inductors for the customer and shareholders, through institutional innovation. In this context, the concern is to eliminate "non-value added activities", that were characteristic for higher prices without increasing value for the customer. Awareness of this fact was followed by a general mobilization to cover the development of integrative tools and models designed to manage costs and value together, put them in bundles and carry out arbitrage between these two categories of elements: "the stakes is to optimize the enterprise supply by adapting the capital that it invests at the same level that is the customer value of the product".

Starting from the definition of value, we intend to begin to explore the concept of customer value and, in particular, we will try to see if it differs from the price paid by the customer. Then we highlight the complexity of the concept of customer, multiple customers and unstable customers, because this is the fact that makes measuring and ranking the values that they perceive to be difficult, or in any case, relative. In the second part of the article we will look on the problematic relationship between cost and value. To do this we will analyze the main management accounting methods proposed to build this relationship, especially insisting on the target costing method and activity-based costing method.

Key words: cost, value, management accounting, customer, method

JEL Classification: M41

INTRODUCTION

An analysis of the evolution of management accountancy highlights the presence of several stages. Thus, during the first stage (before 1950), the interest paid to the estimation of costs and to the financial control was obvious, under the condition of applying the estimating techniques for budgets, the accountancy of complete costs. During the second stage (until 1965), the interest moved onto the reduction of resources used in the activity of a company, using the analysis of processes and cost management techniques. As it can be implied, during the first two stages, the performance of a company, especially the production results, were estimated on terms of the financial results (deviations from the standard costs were the main indicator in the monitoring of the production activity), whereas during the third stage, the estimation of the performance of the real processes is integrated in monitoring systems. Recent trends in management accountancy highlight the change from the accountancy based on costs to an accountancy based on value.

WHAT IS VALUE FROM THE ECONOMICAL POINT OF VIEW?

The definitions of value can be found in fields such as sciences, arts, economy and philosophy. We shall not consider the definitions from sciences, arts or philosophy, but the ones from economy as they can help us better understand the value of any asset or service for the customer.

We have classified the definitions of value into two categories:

- definitions given by the traditional economists and
- neo-classical theories on value.

Economist *Adam Smith* gives the following definition for value: „the word value has two different meanings: sometimes it expresses the utility of some particular object and, sometimes, the power of purchasing other goods which the possession of that object conveys”. The first meaning

refers to the *value in use*, whereas the second to the *value in exchange*. For *Marx* utility is the fundamental part of value, but it is reduced only to labour.

The value in exchange is, thus, "the price for which a commodity is exchanged for another". The value in use is given by the "utility of a commodity estimated either in an objective and general manner, or in a subjective manner, consequently variable from one person to another. Hence, the value in utility relates to needs, while the value in exchange requires relating to another commodity.

Whoever might handle the matter, Smith or Marx, utility motivates the economic productive activity and represents the fundamental part of value, although its magnitude is determined by cost, which allows an objective estimation.

For *Jevons*, considered the founder of the neo-classical school or the marginalist school of economy, value does not count on costs, but on demand. It is determined by the marginal utility of the commodity. Thus, for the supporters of the neo-classical theory, the value in utility depends on the user, on the situation in which he is, on his preferences and it consequently has a subjective character.

The first question which might me asked when talking about the management of the cost-value relationship is whether we know if we refer to the value in exchange or to the value in utility. Actually, if we note the definition of value in utility given by the traditional economists, we could consider that value equals the costs and the interest in research is excluded by itself. It seems that we should take into account the value in exchange, if we want our research to be meaningful, value which is expressed in monetary terms and could be equalled to price.

WHAT IS VALUE FOR THE CUSTOMER?

During the last two centuries, the term *value* has been used more and more often in the business environment and the idea of creating value for the shareholder was greatly stressed. Nevertheless, the popularity of the term did not come along with a clear explanation of its meaning and it is still ambiguous, especially when people use the word *value* without mentioning whether it refers to the value for the shareholder or the value for the other parties involved: employees, customers, suppliers, other groups.

In order to acquire a full and adequate perspective on the critical areas in the activity of a company, Robert S. Kaplan and David P. Morgan (1992) favour the necessity to take into consideration several approaches for the notion of value, namely: the financial perspective (equivalent to the value for the shareholders), the customer's perspective (equivalent to the value for the customers), the internal perspective and the learning perspective.

Leaving aside the value for the shareholder and the discussion about a possible convergence of values for the different parties interested in the situation of a given entity, we shall focus on the customer perspective and value. Actually, the researchers specialized in management accountancy refer to it when they want to establish a relationship between the costs generated by the products offered to the customers and the value created by the manufacturer for the same customers.

As the importance and understanding of the customer needs acquires a more and more active role in any business stages and the strategies of many companies focus especially on customer behaviour and the way in which customers operate, the definition of value from the customer perspective is of high interest.

During the last decade, the customer has become the "centre" of the business, starting a real revolution in the planning activities of any business, a revolution which has its roots in the concept of creating value for the customer. Creating value for the customer was and has been in the center of the marketing strategies of many companies.

The customer, as it is defined by the literature in the field, is that person or entity which benefits from the product or the service provided by a company. The consumer is defined as the one who obtains goods and services for his own use, not to be resold or used in production. Consumers are similar to a catalyst in the chain of value; their act of buying launches the flow of

activity of a company. Their demands and decision criteria are quite numerous and the customer's methods of allotting value could be formal or informal.

The value created for the customers, in its most rudimentary form, is the difference between the benefit acquired after consumption and the cost associated to the same product. Nevertheless, nowadays consumers are much more educated and informed due to the information technologies and consequently they tend to buy only those products which deserve the costs required for their acquisition. In most cases, as presented in the literature in the field, the consumers' perceptions on price and value are considered the decisive factors in their behaviour.

The importance of the analysis of value created for the customer is continuously growing, as the profit comes more and more from the creation and strengthening of the relationship with customers. The interest in the value created for the customer forces the management accountancy to analyse not only the simple production costs, but also the price of the merchandise or of the service, the maintenance costs, the research and development costs or the costs of elimination from production.

Bradley T. Gale (1994; p.XX) proposes a model for defining *the value perceived by the customers* as an adjustment of the price of each product or service depending on their *quality*, determined by the customers' opinion about the product or a service in relation to that of the competitors.

The authors *M. Larry Shillito* and *David J. DeMarle* (1992; p. 11-14) bring powerful arguments for value as a function of *time*. The moment a product enters a market, it has a strong influence on the value perceived by the customer. In order to add more clarity to what we understand by price, this characteristic should be defined again as *property cost* (maintenance cost and withdrawal from the market).

In short, we could define the *customer-perceived value* as the price established by the customer for a certain product or service depending on (a) the utility of the product in satisfying a certain need, (b) the relative importance of the necessity to be satisfied, (c) availability of the product when it is needed and (d) the property cost.

In many situations, the value created for the customer is confused with the price paid for the products/service. The added-value is not estimated in contract terms, but the supplier must discover it and make it known to the customers, in order to gain their trust.

TARGET COSTING

Managing the cost-value relationship is rather a new field in accounting research, although it is known that during the 1980s the success of the Japanese companies was based on the solution found for this issue. A great number of studies which synthesize the Japanese practices in management accountancy (Cooper 1995, Kato 1993, Tani 1995) rank target costing as one of the methods which can establish a relationship between cost and value created for the customer.

Target costing is an approach used in management accountancy which helps in designing products so that the lowest price possible could be reached, thus giving the opportunity of creating a product according to the customers' needs and demands at a target cost. The method of target costing is greatly based on value engineering, offering an interdisciplinary examination of the factors which affect the product cost with the purpose of finding a way to reach the standards of quality and reliability for a target cost (Cooper 1995; p.352). We mention among the techniques used in value engineering and implicitly in marketing, quality function deployment (QFD), down analysis, quality and reliability testing, functional analysis and parametric cost estimation.

We consider target costing is a method which can establish a relationship between cost, decided on internal level and price, decided on the market, on an external level. In order to support our statement, we quote De Ronge (2000): "the production cost of the future product, named target cost, is a priori determined and it is the result of the selling price imposed on the market and the level of profit imposed by the long-term strategy of the company". As a consequence, the definition of *customer value* accepted by target costing is explicitly the selling price.

In his paper Horvarth (1995; p.76-77) considers that the optimum solution in cost management and value would be obtained by applying the proportionality between costs and value while referring to *target costing* he claims that "its purpose is to generate a sum of costs from all parts of the product corresponding to the value given by the consumer". Thus, target costing becomes an efficient tool in maintaining the customer-created value, while costs are reduced.

Even though many researchers consider that target costing is a method of cutting costs, we shall try to present an example which would highlight that this approach is also based on creating value.

A factory producing furniture raw material signs a long-term contract with a manufacturer of furniture for supermarkets. For this contract, the Marketing Department agreed on a very low selling price. Thus, in order to obtain the greatest profit from this contract, there was created a cross functional team with the mission to understand the customer needs and to find the production means and methods and marketing strategies to create more value for the customer and diminish the costs.

One of the customer's requests was to deliver boards of minimum 4m in length. This detail was an impediment to the fulfilment of the contract obligations by the supplier as its position as supplier for the local manufacturers made it difficult to offer every time a stock of boards of minimum 4m.

The first solution to this problem was that the manufacturer could create a new product with the length of 4m and to work especially for this customer. But, following the managerial decision to adopt the target costing method, the marketing team had several meetings with the customer in order to adapt the characteristics of the products and the company services to the customer needs. The results of the discussions were the following:

- the customer is content with the just-in-time deliveries of the board kits, as the manufacturing costs are reduced;
- the customer pays a higher price, as he receives kits instead of boards;
- many of the leftovers can be used by the supplier in sales, their cost being almost null.

This way, the customer reduced the costs of the stocks (the boards are no longer kept in stock), for the materials and leftovers and the production time was also reduced, while the manufacturer increased his incomes as a consequence of the higher price for the already cut kits.

In conclusion, the contribution of a target-costing approach in the management of the cost – value relationship could be the following:

- on global level, it allows the link of the estimated selling price for any product to its price on the market; we notice in this case that the notion of value is identified to that of the price;
- on analytical level, it contributes to the establishment of certain costs for the product parts, attributes or functions, but there should be taken into account the fact that the parts should be carefully created, so that the sum of costs would not have any relationship with the value perceived by the customer.

ACTIVITY BASED COSTING

During the last years, there have been developed new approaches so that the information offered by management accountancy could answer to the continuously changing demands of management. Thus, in order to avoid the traditional hypotheses based on standard costs and the analysis of the variations, there has been developed the Activity Based Costing (ABC) method, which determines the costs of the resources for the activities it undertakes, offering a new vision on costs.

As a consequence, the relationship between activities and costs is made clear by the two fundamental principles of ABC, namely:

1. *products "consume" activities*, in other words, products require activities. The costs of the activities are transferred to the product corresponding to the cost generators or creators;

2. *activities (not products) consume resources* or values which represent productive factors, actually corresponding to the quantified expression of the monetary terms of these resources or productive factors consumed by the activities.

In case the relationship between costs and value is unsure, the other two relationships, which link the activities to costs and the activities to value, are the object of some causal links. So, "going through the activities" we could link costs to value.

The activity could be defined as a specific mission or a group of tasks of the same type undertaken in order to bring more value to the product manufacturing. (Oprea C., Carstea Gh; p. 261). If we were to resume to the two ABC principles, regardless of the dimension of the company, we would have an unlimited set of activities and we could choose some of them. But the activities thus identified might be more or less useful to identify the product cost, to make decisions or to create value. Thus, in 1991, Lebas, after he had divided the company on account of activities, he proposed the separation of value added activities from the non value added activities. Even more, Mevellec, in 2000, brings together the value added activities which are similar into processes. Starting from the premise and using the ABC method, Chauvey and Naro (2004) admit that it is possible to link costs to value added for the customer, using activities and processes.

The value added activities are those activities which add value to the product or service for which the customer is willing to pay. Thus, all the activities necessary to manufacture a product or to improve its quality and reliability are value added activities. On the other hand, the non value added activities are those activities which do not contribute with any kind of value to the final product and are those activities for which the customer is not really willing to pay. Piling up products and useless inspections on the production line are examples of activities which do not create added value. These activities should be eliminated as much as possible.

Any ABC system offers information on the consumption of resources on products as well as on customers. This information has the role to help management in decision making as regards the design of the products, production technology, prices and range of products, decisions which might have a long-term influence on the relationship of the company with its customers. We mention here, as a competition advantage of this method the fact that the ABC method makes possible the identification of profitability for each customer, by the separate estimation of two costs: cost per product and cost per customer. Subtracting these costs from the selling price we obtain the profit per customer, but also the corresponding position of products and services.

CONCLUSIONS

From the theoretical point of view, the answer to the question "Could management accountancy control the relationship between cost and value?" is an affirmative one. But from the practical point of view this thing seems difficult to accomplish as, traditionally, the management accountant focuses on costs, in other words, on the internal management of the company, while the management of customer value supposes being open to the market, even more, it requires an expansion of the centres of interest and fields of activity. Management accountants are often accused for not "creating value", for hindering the other positions in creating value, for being focused on cost reduction, but they can often find in the management accountancy tools for the control of the cost – value relationship the means to stand for themselves and join even closer for the strategic plans of the company.

A thorough knowledge of the studies made by marketing specialists would make possible a better use of their results in the company strategies to develop new products. For exemple, understanding the fact that these values are not only marginal, but they are adding and multiplying and so on, could have an influence on the development of the target cost approach.

The creation of value starts from the customer. All activities that the companies are doing for quality should focus on customer needs and demands. But they cannot be aware of their future needs, therefore companies have to anticipate, innovate and create new values for original products,

services and processes. It is vital to understand the value made available for the customers by the company, at present as well as in the future.

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