

IMPLEMENTING TARGET COSTS METHOD IN ROMANIAN HIGHER EDUCATION INSTITUTIONS

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Abstract: *Target Cost Method (TC) is using price and profit concepts. That is the reason it may be wrong consider as a technique for product or service price calculation. Actually, it is a cost management method which differentiates product technologies or processes that generate an acceptable profit to a certain activity level. Target Cost Method could be considering as an aggressive one. It makes possible to identify unprofitable operational activities of the economic entities as well as inefficient processes that are otherwise hidden within the use of traditional methods of managerial accounting. As a result of TC application there is a significant difference between initial costs and the target costs. This is natural situation considering the target costs are established in the design phase of product or service. We are going to prove this issue in the context of the Romanian higher education system.*

Keywords: Target Cost Method, higher education, value engineering, life cycle of a product or a service, cost management, managerial accounting, competitive environment, value chain.

JEL Classification: I23, M41

1. GENERAL CONSIDERATIONS REGARDING TARGET COSTS METHOD

Formed in the 1960s in Japan, target cost method has its origins in American value engineering concept created by General Electric Company during the Second World War. This company was faced with a crisis in terms of production components purchase and tried to reconfigure their products with fewer component parts, but more competitive. Japanese companies had exploited this idea and expanded concepts of value engineering method to a new method named target costs (Tani T., Okano H., Shimizu N., 1994, p.67-81). In the 1990s more than 80 percent of Japanese industry was using CT method with remarkable results in terms of profitability (Kato J., 1993, p.347).

The basic idea of the TC method refers to quality goods or services provision having a competitive price and lower costs that allow a reasonable investment return. This can be achieved by reducing production factors costs along the life cycle of a product or service, especially in planning, design and development stage.

The best definition of TC method is provided by Consortium for Advanced Management – International. According to this institution, TC method represents a profit planning and cost management system based on price, customer oriented and it has an advanced functionality (CAM-I, 1999).

The accounting literature offers many other definitions of TC method. I will make a short brief in the next paragraphs:

- A market-oriented managerial accounting technique that aims to increase profitability and productivity (Al-Thahabi J., Al-Ghabban, 2007, p.13);
- A strategic approach of managerial accounting used in products or services cost management (Ewert E., Emst C., 1999, p.23-49);
- Accounting method used for profits forecasting through the target costs inclusion in the products or services development phase (Cooper R., Slagmuder S., 2002, p.58);
- One of the most important managerial accounting tools that can be used in a competitive environment due to the main elements of competitiveness included, namely the price, quality, cost and creativity (Al-Suboo Sanad Sabe, 2000, p.25).

The fundamental equation of TC method is given by the following relation:

$$\text{Target Cost} = \text{Target Price} - \text{Target Profit}$$

At the first glance things may seem simple; but the TC method application is complex and involves many dimensions. This can be proved by analysing the previous equation and the factors with a significant impact on its terms.

Target price of a product or service offered on the market is influenced by the market's features but also of the buyers and competitors characteristics.

Target profit is a very sensitive value which must be determined in relation with economic entity overall strategy, its medium and long term objectives and shareholders expectations.

The difference between target price and target profit is the value which seeks to be reached by giving special attention to the product or service design as well as to production processes materials and continuous activities development in the product or service life stages.

Functionally, target price is depending on competition and clients.

$$\text{Target price} = f(\text{competition, clients})$$

The price for old existing products, but which are intended to be improved is calculated through an adjustment of the current price in relation with the product or service new features, the price witch buyers are willing to pay for the new attributes and the value of similar products. For the new products or services the process is more complex. There are no old market prices. It became necessary to initiate advanced studies and marketing research.

Target profit must be determined according to various financial rates whose values are set to assure entity medium term profitability.

TC method approach is different from traditional method of price calculation. It takes care of total costs amount and desired profit. Traditional method tries to reduce costs if the market doesn't absorb the products and services on their offered price. So the two methods are totally opposite. A comparison of these methods is presented in table 1.

Table 1

TC method vs. traditional Cost-plus method

TC Method	Traditional Method
<ul style="list-style-type: none"> - Costs planning is based on a competitive market's features; - Price determines costs; - Product or service design stage is the base for costs decreasing; - Customers constrain cost reduction; - Cost management is made by an interdisciplinary team; - Suppliers are involved in the initial design stage; - Client ownership cost is minimized; - Costs planning use value chain. 	<ul style="list-style-type: none"> - Costs planning is not based on market's features; - Costs determine prices; - Costs decreasing is based on minimize of losses and inefficiencies; - Costs decreasing is not depending on customers; - Accountants have the responsibility to reduce costs; - Suppliers are involved after the design stage; - The initial price is minimized; - Costs planning don't use value chain.

Source: Ansari S., Bell J., Swenson D. (2006), p. 20-50

2. PRINCIPLES OF TARGET COSTS METHOD

TC method is based on some key principles established by CAM-I. We make a short brief in the following paragraphs.

a) The target or affordable costs are calculated starting from the product or service market price. This value depends on competition intensity, supply and demand dimension or some other factors which influence product or service market. It must be identify an equilibrium price between economic entity needs and specific industry features.

b) Focus on the customer is the second principle. The product or service quality and performance are required by clients. All production process decisions must incorporate them.

c) TC method is applied in the design phase of product or service. Costs' changes or adjustments are made before manufacturing phase which leads to lower costs and reduce the time to launch the product on the market.

d) TC method implies mixt and interdisciplinary teams which are responsible for all life circle stages of a product or a service.

e) TC method uses the whole chain value. It implies suppliers, distributors and customers.

f) The method is focused on costs implied by all product or service life circle stages. It tries to diminish costs in benefit of whole entity but also in benefit of the customers.

3. PRIMARY OBJECTIVES OF TARGET COSTS METHOD

The TC method primary objectives are the following:

- To achieve a satisfactory marginal profit for economic entity by offering a product or service to a competitive price; this ensures achievement of the entity strategic goals;

- To offer competitive products or services in terms of quality, price, time, customers satisfaction degree and clients' acquisition potential (Robinson F., 1999, p. 92);

- To monitor life circles stages and after – sale service (Lee J.Y., 1994, p.69);
- To reduce production factors' costs;
- To record the target profit;
- To achieve the economic entities long-term goals.

TC method implies a cost management system from the first stages of product or service design. This system is then applied to the whole life circle of the product and actively implies all the value chain cells.

4. STEPS TO IMPLEMENT TARGET COSTS METHOD

To implement TC method one should start from a clear pursued aim. Also it must delimitate the intensity of track changes. The method is not applied only to goods or services; it may be applied for a function or a process, also for multiple simultaneously processes. In this way, it is clarified the area for changes to be applied, such as processes redefining, re-engineering, business organizational transformation etc.

A very important element is changing acceptance degree by entity members because of the known difficulties created by human resistance to change.

Developing a deployment plan is another important step in the design of the TC method. Such plan should contain method implementation specific objectives as well as a communication plan in order to inform all involved members about the project results.

Teams are another essential element in the success of TC method. These teams require including of marketing, accounting, production and quality control experts.

Implementing members' team must have specific trainings. They must understand the method features in order to successfully implement it.

5. SPECIFIC TOOLS OF TARGET COSTS METHOD

The specific TC tools should be used to archive the most of production process activities (Ansari S., Bell J., Swenson D., 2006, p.20-50).

First of all, it is very important to analyse the customer's needs. It is necessary to identify the value which customers give to the product or service in order to establish the monetary value they are going to pay for these products or services acquisitions.

Target cost decomposition is another important instrument aimed to break down the cost categories on relevant based of product or service features and which could serve as a base for cost allocation target.

Product circle life costs forecasting is another activity which implies some specific tools. It is necessary to make a costs distribution on different life circle stages of product or service.

Exchange costs value analyses is make by using product or service features value and their functionality.

Another important activity is represented by costs control and monitoring. It is used to make costs forecasting in the design stage of product or service. This activity's absence would not permit to assess the target costs archive progress.

The most important tools used to realize the activities mentioned above are shown in the table 2.

Table 2

TC tools	
Steps	Methods
The analyse of customer's needs	Quality function Deployment
Target cost decomposition	Value Index
Costs forecasting	Cost tables, analogies, prototypes, costs' parametric estimates
Exchange costs value analyses	Value engineering
Costs control and monitoring	Tracking target costs for performance estimate and forecast, migration costs

Source: own vision

6. HOW TO IMPLEMENT TARGET COSTS METHOD IN ROMANIAN UNIVERSITIES

The main activities of higher education institutions are relating to teaching carried out within the study programs and to conduct research projects. The both activities imply project management which is the main instrument for planning and control improvement as for the efficiency and effectiveness evaluation. The main purpose of project management is to achieve the performance criteria laid down in the context of the default costs and time constraints.

TC method should be applied for strong and growing competition sectors, or for goods or services which have a short life cycle. Using TC method should help the entity to consolidate its market position and adapt to market changes following the demand and supply dynamic.

First step refers to service design, in our case a study program. This stage of TC method focuses on study program design, its main features and the way it is aimed to achieve the specific market or customer's needs.

In the second stage it defines and optimises the target costs.

Target costs definition implies many approaches.

Target costs defining can be approached from several perspectives: focus on the University's existing costs, costs approach competitors or potential based on market accepted price. Regardless of the chosen approach, the costs must be set out in such a way that to sustain an optimum definition of the program of study that satisfies the market requirements in terms of quality of service, and to ensure a competitive cost.

The approach we use is based on the price that can be obtained on the market (Market into Company). We consider this approach within the relevant sector education because the method presents a high degree of relevance in relation to the competitive market for the specific sector.

Target costing is done within this method by reporting the actual requirements of the target market, the costs are defined as the difference between the market fixed price and targeted to be profit obtained by the University. The result of this difference is the market accepted or permitted cost, which can be interpreted as the cost of a service which has been designed according to the existing capabilities of the entity or process defined above.

In order to optimize costs, the target cost of the study program has a value between costs affordable and standard costs. One of the disadvantages of this approach to target costs is that it ensures consistency and transparency, because the way in which the difference between the target costs and the costs to be acceptable is treated is at the discretion of the Manager-the expected profit margin may diminish or price may be increased. When acceptable costs cannot be achieved, it is necessary to amend the cost target.

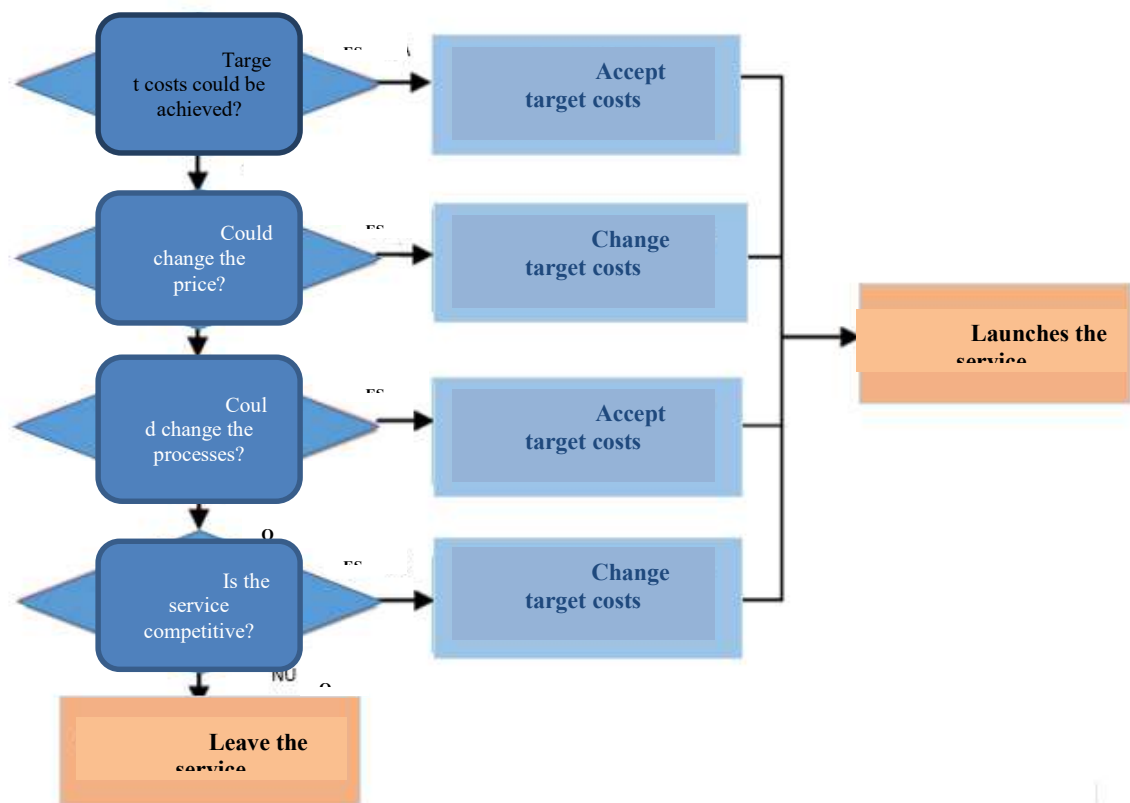


Figure 1. – Target costs flow optimization processes

Source: Bernal, L. et al. (2009) Target costing for services, Small Enterprise promotion and training, Univ. Leipzig, p. 7

Classification of target costs involves differentiating their functions of your product/service and/or its components. Most of the time components are based on the classification of costs because they can generate potential benefits for clients. Within the services components are associated with the process. The consequence of this classification is the Division of service elements that generate costs, their allocation and thus simplified and more relevant. The amount of the fixed costs depends on the relevance of each process in light of its usefulness or value for customers. To be able to calculate these costs is needed to define the activities that comprise the service based on the analysis of the market and target customers. In the end, it is necessary to establish and evaluate the usefulness of the service based on customer satisfaction questionnaires. The better defined the value of benefits for customers the better

will be the maximum estimate of costs of processes or activities of the components of the service.

This step is necessary to determine current and future costs for comparing target costs with standard costs. To this end, an important analysis tool is the array functions-identifying how processes contribute to defining the specific activities of the service.

Making comparisons between the target costs and the standard costs can be done using the target costs index:

$$\text{TC index} = \text{percentage target costs} / \text{percentage standard costs}$$

A value greater than 1 to this index signifies the target cost higher than the standard costs, which may be a warning signal in terms of improving the quality of service. The index value is less than 1 means the value of the target costs less than the standard costs which may be interpreted by the fact that the estimate for the clients is less than the amount of the costs being required to reduce those costs.

The last phase of implementation of the method consists in uniting the efforts of TC to achieve the original objectives set out, in order to design and market launch of service and balance in relation to the cost of quality.

In the framework of the development of the service, the target must satisfy the requirements and needs of customers, and reaching the target costs takes place within an iterative process in which revise the processes of service components to achieve the desired target cost values. Once achieved, these costs become new target standard costs, which should be monitored in the course of providing the service, the ultimate goal being their mitigation potential.

Another important element is the continued monitoring of the quality of services offered, as well as costs associated with quality.

7. CONCLUSIONS

TC method implies a cost management system from the first stages of product or service design. This system is then applied to the whole life circle of the product and actively implies all the value chain cells.

The main activities of higher education institutions are relating to teaching carried out within the study programs and to conduct research projects. The both activities imply project management which is the main instrument for planning and control improvement as for the efficiency and effectiveness evaluation. The main purpose of project management is to achieve the performance criteria laid down in the context of the default costs and time constraints. TC method should be applied for strong and growing competition sectors, or for goods or services which have a short life cycle. Using TC method should help the entity to consolidate its market position and adapt to market changes following the demand and supply dynamic.

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