

# TARGET COST – TOOL FOR PLANNING, MANAGING AND CONTROLLING COSTS

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**A***bstract:* The target costing method involves implementing a homogeneous set of tools on cost planning, cost management and cost control. This method aims to reduce costs by knowing the different stages of a product cycle, analyzing the costs of each phase and improving the technologies and manufacturing processes.

*The managers of economic organizations are using the target costing method to determine with certainty the limit cost of their new products and to set a target price of the product in order to obtain a higher profit.*

*The target costing method is not only a method of costing calculation but also a modern management method that uses evaluated techniques regarding market study, value analysis, reducing diversity, manufacturing technology and the relationship with suppliers and customers.*

*Target cost is an estimated production cost, calculated on the basis of a forecast competitive selling price and a projected profit margin. It has values between the allowable cost, which is determined by the market according to the competition and the estimated cost, which is determined according to the existing means of production and the technologies used by the organization.*

*Keywords:* target cost, costs calculation, market cycle, production organization, product

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## Reference elements of the emergence of modern costing methods

In order to increase the performance, from an economic perspective, the organizations seek to use modern methods of organization and strategic analyses to create a competitive advantage compared to other competing organizations.

In order to implement the adopted development strategies, both multinational and national companies from economically developed countries have proposed the use of new methods of organizing production and of cost analysis, that would directly increase turnover, profit size, labor productivity and would reduce manufacturing cycles, would minimize inventories and would accelerate the rotation of the working capital.

In Romania, the economic organizations need to know and adopt in practice the modern methods of organization and strategic analysis, in order to be successful, to survive and to maintain their position both on the internal and external market. This is more and more necessary since now there is a trend of markets globalization.

## Limits of traditional methods of organizing production

After decades of mass production and consumption, with uniform and standardized products, the demand has become more exacting, both in terms of variety and quality. If in the early twentieth century, companies owned rigid and monofunctional machines, today, electronics has enabled the development of flexible means of production, which respond to a specialized request.

Economic organizations have adapted to these developments by constantly changing objectives and strategy and seeking to better satisfy customers in order to preserve and maintain their market share as well as continuously looking to minimize costs.

The economic and financial crisis which occurred worldwide in 2009 has produced a series of organizational and technological changes in economic entities. In this context, many organizations have started a restructuring and streamlining of activities and some of them were forced to change even the business profile, focusing on new activities.

In the current context, in order to better achieve the objectives: quality, time, cost and flexibility, the economic organizations must implement new methods and

techniques, both inside and outside the organization, to pilot the processes and competences in order to improve their performance through a continuously progressive approach.

This approach should focus on:

- *production organization* by managing the flows. This allows reducing the costs and time and developing production procedures to ensure effective demand, by reducing the waiting period and the inventory;
- “*design – manufacturing – marketing*” cycle by integrating phases and approaching them transversally with a process; this enables the improvement of any process in terms of cost, quality and time, the finding of synergies and the detection of inconsistencies;
- *production integration with all external parameters*, necessary cooperation and collaboration for economic performance reasons, requires a proper management of the organization and allows flexibility in time and space, resulting in cost savings.

The traditional management methods (analytical accounting, budget control) do not always offer genuine means, relevant for managing product life cycle.

The main reasons to support the above-mentioned are:

- Methods allow knowledge of costs by various functions of the company, when practical needs are predominantly oriented towards determining costs for different parts of the production process.
- Costs are determined by stage of production and for predefined periods of time. This approach does not satisfy the needs of information for optimal allocation of resources, the identification of real causes of a particular resource consumption trends, piloting of process performance.
- The methods are oriented towards the analysis and constant cost control in execution stages, thus carefully considering the calculation of production costs to the detriment of the costs in the pre-execution and post-execution phases. These traditional methods focus on the design phase, given that currently 50–70% of the costs are designing costs (upstream production) and maintenance and service costs (downstream production).
- Information provided by accounting and cost analysis serves to establish the selling prices. Pricing after knowing the costs may favor

the designing of appropriate products in terms of technique, but that does not meet the requirements imposed by customers. In order to maintain their market position, the organizations should adapt to market requirements or quality conditions, delivery terms, related services required by competition, information on the selling price accepted by customers from the product design phase.

- Indirect costs are allocated by these methods according to certain rules related to working time of the employees and machines, leading to an underestimation of the indirect costs for different products and an overestimation in their case, with impact on product management. They can generate errors in establishing the selling prices and in the strategic management of products.
- The analysis of deviations on analysis center, on products or other specific structures does not consider the interdependencies and liaisons between them.
- The analysis is mainly oriented towards the past, to the detriment of the strategic forecasting approaches. Cost calculation and analysis must be performed by: strategy implementation period, product lifetime, strategic stages of equipment renewal etc.

The attempts and research directions undertaken revealed evaluation systems more adapted to new requirements. Thus, the target costing method focuses on a market oriented management, aiming to attract and satisfy the customer.

### The target costing concept

At the origin of this concept was the need to produce in smaller series, in order to better respond to market needs, the introduction of new methods of organizing production and the implementation of new automation-based technology.

Target cost is a management concept of cost developed and used by Japanese companies in the 1970s.

In the literature we find different definitions of target costing method based on the organizational culture and the purpose of each economic entity. For example:

- a) SAKURAI: *“target costing is a cost management tool for reducing the overall cost of a product over its product life cycle”*.

- b) COOPER: *“the goal of the target cost is to identify the production cost of a product so that once sold the latter generates a desired profit margin”*.
- c) Computer-Aided Manufacturing – International: *“target cost is a set of methods and management means allowing to incorporate both cost objectives and design activity and planning of new products, to provide a basis for management control during the operational phase and to ensure that these products achieve profitability targets set in their lifecycle”*.
- d) P. HORVATH: *“target cost is built on a broad set of tools for forecasting, management and cost control, applied in the early product design stages and process, in order to allow a shift in cost structures of the product caused by the market constraints”*.
- e) P. LORINO: *“target cost is the meeting place between the market and the company’s internal competences: between value and cost; it consists of assessing the future performance of a product concept, its value–cost couple”*.

The cost method is part of a strategic management approach to products; the product is followed throughout its life cycle, particularly in the design phase. Applying this method involves the training capacity of the organization in the strategic area since the products design.

After analyzing the definitions, it results that the target cost method is based on the following:

- ✓ Cost analysis is performed by *product*, considering that the product is a natural bond between market and organization and at the same time the product is a source of profit.
- ✓ Cost analysis should be performed *throughout the entire lifecycle of a product*; the target cost is considered since the product design and can be tracked throughout the entire lifecycle of the product.
- ✓ Viability of a product is measured in relation to the *market*, depending on its compliance with the needs and price. In this respect, the organization should strive to have a competitive price to be able to sell to the customers both in the present and the future.

In order to achieve this, costs should remain at the same level since the designing of the product, otherwise the product will be considered as not viable. So:

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*Target cost of a product = Estimated production cost,  
calculated by a competitive planned selling price*

The variable that the organization does not control is the selling price. This condition results from the current or expected state of competitive markets operating on targeted market segment and is often located between:

- ✓ an *allowable cost* due to competition;
- ✓ an *estimated cost* due to current production means and technologies used.

It appears that in the beginning of the process we shall have the following relationship:

*Allowable cost < target cost < estimated cost*

The evaluation of the product cost results in a cost named the estimated cost, superior to the target cost.

Target cost, in some situations, may be obtained by summing up partial target costs, consisting of costs incurred for various functions of the organization to manufacture and sell the product.

This method aims to ensure adequate future profits by planning simultaneous price and cost.

The stages of implementation of target costing method are the following:

- *target price fixing*, achieved by specific techniques applied at all stages of the product life;
- *target profit fixing*, achieved by financial analysis, taking into account the organization's strategy and product portfolio and represents a profit curve depending on the life of the product;
- *setting target cost*, analytically achieved by type of part target cost depending on product components, using the *organic decomposition* method based on knowledge of the current cost of components and the company's capacity to produce them, and *functional decomposition* method based on customer and market needs.

Target cost method is a method of market-driven costing, as target costs are established first by determining the competitive price of the market, minus the profit rate to be achieved and a customer-oriented approach, which means that the cost analysis is driven by customer requirements on product quality and price.

### Objectives and limits of target cost method

The main goal of target cost is to provide a rigorous method to reduce the cost of a new product, to ensure a sufficient margin while maintaining the balance with its quality. Forced reduction of costs may present some effects difficult to control, whereas a reduction correlated with increasing product attractiveness to consumers requires a logical selection system of product characteristics and possibilities to reduce the consumption of resources.

In a process of continuous improvement of performance and reduction of costs from the product design phase, the target cost considers the following:

- ✓ product launch planning process, mainly considering the needs of the targeted market segment;
- ✓ implementation, based on a regular comparison between target cost and actual cost.

Given that the market is radically changed in terms of demand, the estimated value of products on the market, customer satisfaction, downstream market tracking should be the starting point of decisions, choices and actions of entrepreneurs.

The product is a vector of information to the market and customer value bearer. In this case, actual costs of production and distribution, at the time the product is manufactured, depend on the decisions taken in the design phase, decisions that will determine the future performance of the product, including the selling price to be imposed by the market and the profit to be obtained by product.

The goals of target cost are the following:

- ✓ general orientation of the organization, particularly its cost management to market;
- ✓ supporting cost management in the early stages of a product design;
- ✓ dynamic costs management, because these target costs are constantly re-evaluated;

- ✓ improvement based on motivation, because the structures are directly influenced by market constraints and not by abstract goals applied to all organizations.

Also, another objective of the target costing method consists of reducing the difference between estimated cost and target cost and finding solutions to implement systematic changing practices of manufacturing concepts or product development.

Target costing method uses various means, requires a complete philosophy of management and communication within business organizations in which there are several management practices integrated into a logical management of performances.

The limitations of target costing method can be defined as follows:

- ✓ *Transversal vision.* The method involves several functions in a unique approach to market research, applying methods for product design, management control for revaluating items and purchases for choosing purchased and delivered components. Cooperation between its functions is not hierarchical, it is multiple and varied, and the network and decisions of a function are passed on to all the other ones. This bond between functions requires the consideration of the constraints and finding a solution, in a global vision, to optimize value-cost couple.
- ✓ *Organization turned to market.* Target costing vision is *market-oriented* and determines the value of a product and empowers the organization to optimize value-cost couple.
- ✓ *Means of managing future performance.* Target cost allows for a simulation of the organization's future and forces to reflect from upstream processes, according to their future implications.
- ✓ *Collective training process.* The multitude of means included in a target costing approach will lead to a result if the necessary skills are mobilized and all the stakeholders are informed.

In order to effectively implement the target costing method, it is necessary to involve all responsible people, to ensure transparency, to evaluate and collectively monitor errors that may occur.

If human, cultural and managerial aspects are not taken into account within the organization, the target costing method is not subject of discussion. Although, the cost estimations, the setting of the value or the design of the target costing



method are known and sometimes implemented, the management practices and strategic vision that the target cost is based on, encounter cultural incompatibilities.

### Using target cost methods

Economic organizations use target cost as an essential means in their strategy during the product design phase. In this context the questions raised are the following:

- ✓ What are the characteristics of the product in order to meet market needs?
- ✓ What market share this product should reach?
- ✓ At what price will it be sold?
- ✓ What will be the competitive advantage of the new product?
- ✓ On what features these advantages will be based on?
- ✓ What are the resources to be saved without threatening the competitive advantage of the product?

Determining the target cost is included in the analysis consisting in a global approach to product management. The target cost allows setting a cost limit to be reached by considering the profitability of the product throughout its entire life cycle.

At the same time, the major concern in the design phase is represented by product competitiveness, followed by price. In order to have a competitive price it is necessary to control the product cost upstream and identify constraints.

The target costing method is not exclusively a means of strategic analysis, but it is a condition for the strategic management of company's activities portfolio.

### The methodology for the study plans and target cost

Target cost method is aimed at providing more rigorous methods to reduce the cost of a product, to ensure sufficient margins while keeping balance with its quality.

It also represents an instrument of strategic control, as it places the products in the center of strategic management and follows their costs in connection with the life cycle.

The target costs process can be summed up in the following steps:

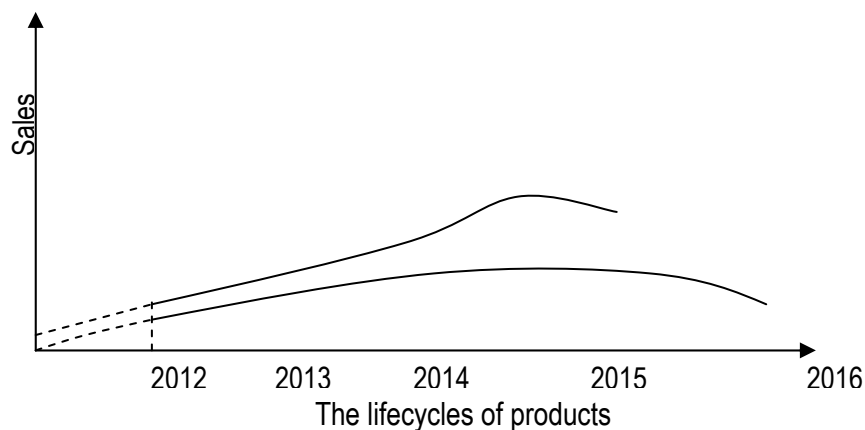
- strategic and operational forecasting;
- elaborating study plans for new products;
- elaborating basic plans for new products;
- redesigning of product;
- forecasting sales and commercial stakes for the new product.

This study considers that an organization produces in a slow-growing sector, where the forecasts are that production won't increase significantly, while the result share of total sales per year is low. In this context it suggests an improvement of the mix of products by increasing the performance and eliminating the possibilities of comparison with the products offered in the competitive market.

With respect to the target costs, research has been *focused on elaborating basic plans for new products*, in order to establish a target cost.

For the justification of the sales budget a complete system of factors have been taken into account, namely: the evolution of demand by types of customers, the competitive strength of the company, the investment and depreciation programme, the necessary circulating funds and the design and development costs of the products.

In estimating the sales of new products it was noticed that improving the range of products on the basis of the project contributes to increased profitability of trade from 4.11% in 2012, to 7.69% in 2016, compared to 3.71% per year, if the company would rely only on the manufacturing and marketing of products.



We can show that traditional products are in the phase of maturity, while new products lead to an increase in sales, but the tendency is that other products must take their place by 2016.

As a result of decisions taken, every new product has been the subject of an extensive study in order to determine the main features and establish a cost target.

The study has considered that: the value of a product increases along with increasing customer satisfaction or reducing cost of the product; the trend in demand on the market; existing products on the market; customers' income and whether the product is selected these contexts are justified as follows:

- *in the first stage we analysed the demand of consumers, their needs and the utility of the product, on the basis of the functions and limits of the technical characteristics of the product:*

| Function | Brief description of the function          | Function type | Technical features         |
|----------|--|---------------|----------------------------|
| A        | Provides a pleasing aesthetical appearance | Subjective    | Form, finish, color, style |
| B        | Durable                                    | Auxiliary     | Service period             |
| C        | Resistant                                  | Objective     | Quality of materials       |
| D        | Ensures stability                          | Objective     | Assemblage                 |
| E        | Reliable                                   | Objective     | Period of operation        |

For this stage several clients were surveyed, and after processing the questionnaire the following order of importance resulted:

|                                       | A  | B  | C  | D | E  | TOTAL |
|---------------------------------------|----|----|----|---|----|-------|
| Importance level                      | 4  | 2  | 5  | 1 | 3  | 15    |
| Share in the use value of the product | 26 | 21 | 27 | 9 | 17 | 100   |

It is observed that the largest share is given to the "resistance" function, 27 percent, followed by "looking nice", 26%, and "durability", 21%.

- *in the second stage the goal was to relate the technical components of the product to the product functions.*

We have been collecting all the information necessary for determining the cost functions. The mode of distribution of total costs of the products is as follows:

| No. | Operation   | Total cost | The functions to which they participate |       |       |       |
|-----|-------------|------------|---|-------|-------|-------|
|     |             |            | A                                       | B     | D     | E     |
| 1.  | Operation1  | 60.67      | 23.55                                   | -     | -     | 37.12 |
| 2.  | Operation 2 | 35.34      | -                                       | -     | 35.34 | -     |
| 3.  | Operation 3 | 63.50      | 21.54                                   | 22.45 | 20.51 | -     |
| 4.  | Operation 4 | 19.72      |   | 4.32  | 6.76  | 8.64  |
|     | TOTAL       | 180.23     | 45.09                                   | 26.77 | 62.61 | 45.76 |

The functions involving the four operations have been established through logical reasoning related to the implementation of the technological part and it was found that: the first operation contributes to the achievement of A and E, the second operation to achieve the D function, the third operation to the achievement of A, B, D and the fourth operation to achieve functions B, D and E.

- *in the third stage the importance of each product and its cost was presented in parallel. A clear picture of the condition of the product is obtained by comparing the level of costs to the level of important functions.*

In parallel to the importance of each function and its cost, cost overrun is observed at certain functions, as well as the need for additional investments for others, whose share in consumer's utility is very high, as follows:

| Functions | Importance (%)<br>(1) | The percentage functions of<br>cost (2) | Value index |
|-----------|-----------------------|---|-------------|
| A         | 26                    | 24                                      | 1.08        |
| B         | 21                    | 23                                      | 0.91        |
| C         | 27                    | 25                                      | 1.08        |
| D         | 9                     | 11                                      | 0.81        |
| E         | 17                    | 17                                      | 1.00        |
| TOTAL     | 100                   | 100                                     |             |

On the basis of the research carried out the strategic decisions related to the product components, technical characteristics and costs may be shown. For functions that have index above unit, additional investments are recommended in order to attract the degree of utility of the product for the final consumer. For those functions with an index below unit a reduction in the too lofty costs is recommended.

## Conclusions

The target cost method is a management tool for analysing and reducing the cost of the product throughout its life cycle. This cost method is market-oriented, based on the rule that the market determines the selling prices and not the costs that organizations determines and cause the production of goods.

The formula for determining the target cost is: *target cost = target price - target profit*.

Implementing this method requires a team of experts from different levels of the organization, responsible for determining the price at which the organization can sell the product in order to ensure a minimum profit and to identify opportunities for cost reduction.

As opportunities of applying the target costing method, the company can use:

- ✓ experience obtained in production and marketing of products;
- ✓ considering the markets to which the society is addressse by knowing them and the customer's needs, identifying the price accepted by the market and considering the environmental constraints;
- ✓ focusing attention and increasing quality of product;
- ✓ overcoming resistance to change and mobilizing people to make changes;
- ✓ use of advanced technologies and providing knowledge to perform certain products;
- ✓ good relationships with suppliers and contractors;
- ✓ a functional structure which meets the need to increase the efficiency of resources within the organization, facilitates the measurement of results for each function, retains strategic control of the top management.

The constraints that slow the application of this method are the following:

- ✓ relatively high costs, difficult to manage and commensurate downstream the production;
- ✓ low degree of satisfaction of certain customers;
- ✓ diversified product portfolio;
- ✓ imprecise segmentation by customers and products.

In order to be able to define and implement target cost under a global strategic development approach, a proper functional structure is recommended.

To become a leader, a company must exercise strict control over expenses. It can do this, in part, through *economies of scale* and *adequate organization of production*. However, it needs an organizational structure that allows for an accurate control of costs and a flat and flexible management structure.

## Bibliografie

1. Barbu Elena Cerasela, Isfărescu Aurel, *Analysis of methods of production costs*, Ed. ASE, Bucharest, 2004.
2. Corina Grosu, Alina Almășan, Mariut Laurențiu, "Cost: the cost of the product", *Accounting Review, Expertise and Business Analysis*, Bucharest, 2004.
3. Ion Croitoru, George Calotă, "Performance efficiency in public entities – A key feature", *Public Finance and Accounting Review*, 2011.
4. Donoica S., *Calculation of costs*, Ed. Eficient, Bucharest, 1998.
5. Elena Halciuc, *Modern methods of calculation of costs*, Ed. Polirom, Bucharest, 2005.
6. Mitu Nracis Eduard, "Target cost method", *Tribuna Economică*, Bucharest, 2005.
7. Niculescu M., *Diagnostic global strategic*, Ed. Economică, Bucharest, 1998.
8. Niculescu M., Lavalette G., *Strategii de creștere*, Ed. Economică, Bucharest, 1999.
9. Petcu Monica, *The target cost, strategic management tool*, Ed. Tribune Publishing House, Bucharest, 2007.
10. T. Tanaka, 1993, "Target-Costing at Toyota", *Journal of Cost Management*, Spring 1993.
11. T. Tani, H. Okano, N. Shimizu, Y. Iwabuchi, J. Fukada, S. Cooray, "Target-Cost Management in Japanese Companies: Current State of the Art", *Management Accounting Research*, 1994.
12. Vasile Emilia, Mărgulescu Dumitru, Mitran Daniela, *Economic and financial analysis in the industry – comerț - Tourism and development issues in the horizon*, Bren, 2011.
13. Vasile Emilia, Croitoru Ion, "The Integrated System for Risk Management - Key Factor in the Management System of the Organization", InTech, Croația, 2012.
14. Vasile Emilia, Croitoru Ion, Daniela Mitran, "Risk management in financial accounting", "Athenaeum" *Journal of Internal Auditing&Risk Management*, 2012.
15. Emilia Vasile, Croitoru Ion, "The prospects of the internal audit in improving management of public institution", "Athenaeum" *Journal of Internal Auditing&Risk Management* Nr.3 (27)/Septembrie 2012.