Target Costing as a New Approach of Competitive Market

Iraj Gholami

PhD Student, Department of Accounting, Tajikistan Academy of Sciences
Employee of Iran National Oil Company
E-mail: irgholami@gmail.com

Abstract: The present paper explains the system formation factors and the process of target costing. It also illustrates the historical background of target costing in Japan. Along with the explanation of target cost system from different point of views, six key principles of target costing are presented. They are price-led costing, focus on the customers, focus on product design, cross functional involvement, value chain involvement, and a life-cycle orientation. In addition, the participating of enablers in the value chain is expressed, the survival triangle in this framework is illustrated, then the differences between traditional costing and target costing are determined as the advantages of target costing in market, and finally the profit of two companies is presented as two examples.
[Iraj Gholami. **Target Costing as a New Approach of Competitive Market.** *J Am Sci* 2013;9(4):488-492]. (ISSN: 1545-1003). http://www.jofamericanscience.org. 45

Key words: Target costing, survival triangle, competitive market, value chain, customers

Introduction

Nowadays the competition between companies to survive in the market is an essential concept; therefore, using some new tools and approaches by companies and institutions to adapt with competitive, dynamic and complex environment is obvious. Due to the fact that cost is the most important aspect of accounting, cost management is one of the issues debated in the management accounting and also on the basis of expense and cost; decision making process and supervising is carried out by managers, we cannot be hopeful for a company survival only based on its technology superiority for a long time. In addition, new emerged global markets have caused the diversity of systems and changes of old ones, old strategies which in the beginning of introducing a new product proposed the highest price for the product of the company and emphasized on the production volume to meet the customers' expectations. In doing so, many information systems have been introduced for service and product costing, budget providing, decreasing the expenses, ongoing improvement, performance evaluation and finally value increasing. In such a situation, the organizations increasingly decided to perform their costing systems. A reformed system means a system that measures the unsystematic use of resources for the sake of services and products or by customers purposefully. One of new method is target costing system which has incredible advantages in comparison to traditional methods. The fact is that to use and run target cost system, one should take steps conservatively and cleverly. We explain target costing as a modern costing system in this paper.

History of Target Costing

New innovations in target costing are found in the university course books and it clarifies the fact that developing process of this system has not been introduced properly. Even before 1980s in which the scientists focused on target costing, there were some general ideas about this concept. For example, TOYOTA Company used target costing in 1963. In addition, the background of target costing refers to General Motor that used this system in 1943.

Toshiro and Hero Moto wrote an article titled "Another invisible advantage- Japanese management accounting" which was published in Harvard Business. It had a vital important role in emerging of target costing. Generally speaking, in 1960s and early 1970s with the development in Japan, especially welfare and peoples' life, and their awareness, the companies had to produce variety of products with various qualities. Industrial robots and automatic machines reduced the life cycle process of products. In the late 1980s, the target costing was adapted with companies' strategies and like the cost management strategic tool was considered for profit planning and also for expense reduction (Abdi, 1994:2).

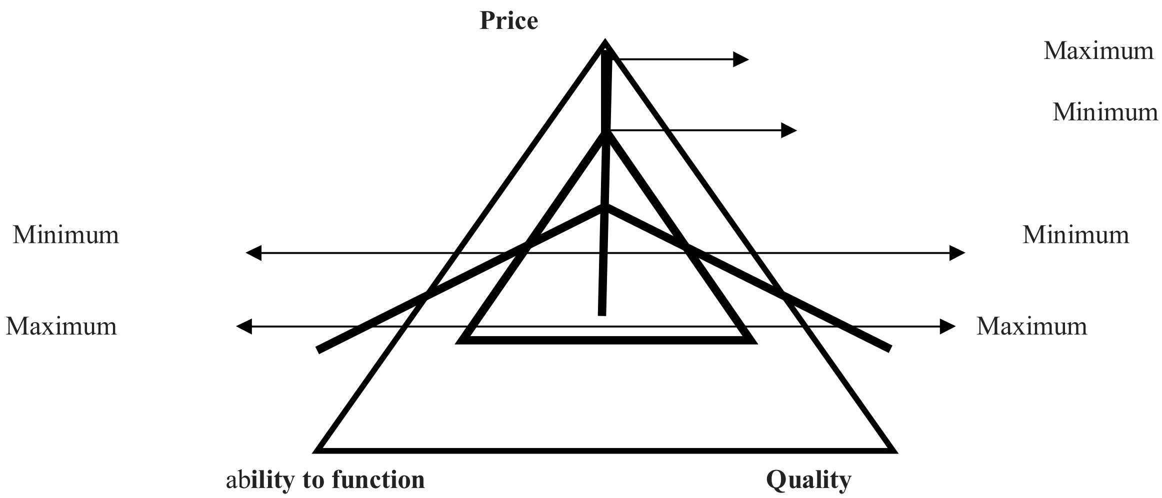
The Definition of Target Costing Approach

Target costing is one of the recognized methods in expense management and target costing system management accounting. Target costing involves setting a target cost by subtracting desired profit margin from a competitive market price. Target costing is defined as "a cost management tool for reducing the overall cost of a product over its entire life-cycle with the help of production, engineering, research and design. Japanese companies have developed target costing as a response to the problem of controlling and reducing costs over the product life style. This system emphasizes on the fact that to reduce the cost, not only are the production expenses important, but also the expenses of before and after production are important. Moreover, to achieve objectives of the firm, not only the participation of managers, industrial accountant, production management, and designing and quality controlling are necessary, but also participants should have a close relationship with raw material providers and customers (Goodarzi, 1995:32).

Target costing is a process for ensuring that a product launched with specified functionality, quality, and sale price can be produced at life-cycle cost that generates the desired level of profitability (Cooper and Slagmulder, 1997). On the basis of the above definition, it can be said that early in the process, a company determines the price that customers are willing to pay for a product, given its functionality, quality, and the substitute products offered by competing companies. There are six key principles of target costing. They are:

1. Price-led costing
2. Focus on customers
3. Focus on design
4. Cross-functional involvement
5. Value-chain involvement
6. A life-cycle orientation

Goodarzi explains the target costing through a triangle which has three axes, it represents one of the important aspects of the product includes: price, functionality, cost and quality. The only products that represent the value of these three axes for the customer, have a chance of success. For each of these three dimensions one minimum and one maximum are identified. The maximum and minimum values of the regional connection points for each of the dimensions is determined in terms of area are called survival areas. (Goodarzi,1995:34).



So, one can conclude that if product survival area is large, the selection of expense management strategy and product priority is successful and pave the way for manufacturers to produce a product with different qualities in the competitive market.

The difference between target costing and traditional costing in cost and expense planning refers to the difference in the theoretical basics of every approach. This is the result of the attitudes towards management and controlling. Khoshtinat and Jameii called these differences "the closed systems (traditional systems) and opened systems (target costing)" which are illustrated in the following table (Table 1):

Table 1: The Compare of Target Costing and Traditional Cost Management

The concept of system theory	Traditional cost management	Target costing
In connection with the external environment	Ignores the external environment and note that the internal efficiency	Interaction with the external environment to respond customer needs and competitive impact
Number of variables that are considered	Cross-functional or external costs does not care about the cost system	In many complex relationships between functions and across, it considers the value chain
Form of regulations	After that was done cost, error correction is performed by information concerning	Before that be done fees, reforms will be done using forecasting and

	deviations	planning by predicted product before
The purpose of the regulations associated with the control	To keep the costs in a range that is specified by standards or budget	Modify(improve) the cost does not continue throughout the life for customer and supplier

Source: Khoshtinate and Jameii (2002)

Therefore, it can be concluded that the closed system approach (traditional approach) is used in stable and predictable environment and is not suitable for the today's dynamic changes and unpredictable trading environments and the opened systems are needed for such kind of situations.

Basic phases of target costing include three basis levels which can be illustrated as the followings:

1. Market level costing: includes activities to set long–term objectivity of sales, profit, determining price, determining the target profit margin and determining the allowed expense.

2. Product level costing: includes product level target costing regulating the target costing with the intention of displaying improvement and use of the basic role of target costing, using value engineering and other techniques to achieve the product level costing.

3. Component level target costing: is a phase within which the amount that a company is willing to pay for the components that are necessary for the process of production is determined. Component-level target costing passes through four phases (Cooper, R. Slagmulder, R. 2002:36):

Determination of target costs of the most significant functions, component level target costing, selection of component suppliers and awarding suppliers for their creativity. The companies buy materials and parts that are needed for the process of production exclusively from external suppliers.

The target costing is a tool directly resulted from the situation in which the products are sold in a fierce competition. Target costing is a system under which a company plans in advance for the product price point, product cost, and margins that it wants to achieve. Under target costing a manufacturer would start with a target price which is set by adding a profit margin to the actual cost. Target costing involves setting a target cost by subtracting a desired profit margin from a competitive market price. Target costing is a method that is reverse of target pricing. Techniques are based on market and the relationship between price and expenses. On the basis of this system, costing is set through price. This process is the reverse of traditional system.

Target costing uses market research to find the price which is in favor of the customer. Here the market price for similar product is taken as a base and then the desired profit is deducted from this to arrive at a target cost. The target costing formula is as the following:

Market Price-Desired Price= Target Costing

On the basis of this system, if the expected expense is more than the target cost, the manufacturer can follow one of the followings:

1. Change the product design or applying strategies to reduce the expenses
2. Accepting the profit margin through desired profit reducing
3. Not producing the product because of being unable to gain the favorable profit

Target costing helps management via expenses strategic analysis of the industries which their products face fierce competition. By fierce competition we mean the competition in which the unnoticeable differences of product price lead the customer to the product with the lower price.

Functional examples

1. Suppose the manufacturer α with total revenues of 800000 R and every unit of 800 R and total expenses of 500000 R and every unit of 500 R with fixed expenses of 100000 R wants to determine the amount of products to be able to achieve 440000 R profit with the assumption that variable expenses and total fixed expenses do not change, the current status of the product and the overall status of the manufacturer are presented as the follow:

Sale revenue	800000 R
Variable expenses	(500000) R
Profit margin	300000 R
Fixed expenses	(100000) R
Income	200000 R

Now on the basis of target costing formula for determining the amount of production at the profit level of 440000 R, the following equation is used:

Target costing= (production volume ×unit sale rate) – (production volume×variable costs of every unit)+fixed costs

440000= (production volume ×800) – ((production volume×500)+100000)

440000+100000=300 Production

540000=300 production volume Production Volume =540000/300=1800
Therefore, to achieve total income of 440000 R, 1800 units must be produced.
2. A company with 6 type of products and fixed expenses of 13192614993 R and the also the information included in the following table wants to achieve 2000000000 R profit.

Table 2: Data of above sample

Product type	Production or Sale	Price	Unit variable expense	Sale margin
Product A	130133	16388	12544	3844
Product B	101982	9207	2243	6964
Product C	858112	14970	4555	10416
Product D	364919	13096	7309	5787
Product E	630828	12000	4832	7168
Product F	270192	15068	6253	8815
	2356167		37737	42994

The following calculations are required:
1. The combination of sale with production=sale or desired production/ total sale
2. The average sale margin=sale margin × combination
3. The volume of production in target sale= (fixed cost+ target profit)/ (average sale margin sum × production combination or product sale)
4. Variable cost in target production= production volume in target sale × variable cost rate
5. The amount of sale in target production=production volume in target sale× price
In the following table the calculations of every product to arrive at total profit of 2000000000 R are presented in table 3.

Table 3: Data of above sample

Product type	Production Combination or sale	Average sale margin	Production volume in target sale	Variable cost in target production	The amount of target sale
Product A	5.52 %	212	103167	1294168854	1690696371
Product B	4.33%	301	80849	181358522	744378676
Product C	36.42%	3793	680293	3098430715	10183993545
Product D	15.49%	896	289300	2114624062	3788678300
Product E	26.77%	1919	500107	2416573147	6001286760
Product F	11.47%	1011	214203	1339484954	3227607489
	100 %	8133	1867920	10444640255	25636641142

In the two above example it's supposed that fixed costs in all level are fixed but to achieve this target profit practically, the equipment and fixed investment are required. Consequently, the effect of these changes on the variables should be calculated exactly. It should be mentioned that the above calculations are increasingly applicable to calculate the break-even point.

Results

Today, in the competitive market with high risk the most important point is that one cannot win the game in this competition through old systems and meet the customers' needs. In such a situation, the companies will succeed that be able to arrive at desired profit with producing suitable products. In doing so, the target costing is an important and recognized approach to control and manage the costs. Target costing can be used in every organization including productive or service provider, but applying this system needs some prerequisite conditions including marker research unit, development and research unit with professional personnel, and also it needs the support of the managers. Target costing can help companies in different situations and market fluctuations. Of course, the managers should take into account that pave the way for participation of all employees to always decrease the cost of products and take the customers' side.

References

1. Hejazi, Rezvan and Amir Albadvi(1999)**: Target Costing, Industrial management Organization,** Tehran.
2. Haghighi Parapari, Mohamad(2002): **Target Costing**, available at www.bilan.ir.
3. Khoshtinat , Mohsen and Ashrafe Jameii (2002) : **Target Costing: Recognition, application, auditing,** N. 16 , mehr and Aban, PP: 45-51.
4. Dastgir, Mohsen(1998): **Accounting and Auditing investigation**, N.39, Spring,pp: 63-65.
5. Rahimian, Nezamodin(2001): **Studying some basic management accounting concepts , Auditor,** N 6, Spring, pp:40-36.
6. Abdi, Farshid (1994): **Target costing: Value engineering and cost strategic management**, available at www.srlst.ir.
7. Godarzi, Hojat (2001): **Target costing**, Esfand, N142.
8. Namazi, Mohamad(2001): **Industrial accounting2: Budgeting and Standard systems controlling**, **SMT Publication**, Tehran, pp: 201-207.
9. Helmut Hengeth:(1997) **Target Costing in the Textile & Complex**. North corolina stat university, 253 p.
10. Eshaghi, Fateme(1999): **Target Costing, Quarterly Researcher**, Fall, N5 p11.

11- Cooper, R. and Slagmulder, R., (1997) **Target Costing and Value Engineering**, Portland: productivity press and Montvale.

12- IFAC Financial and Management Accounting Committee (1999)**Target Costing for Effective Cost Management: Product Cost Planning at Toyota Australia.**

13- Gagne and Discenza, Journal of Business and Industrial Marketing**(**1995) **:Target Costing**, Vol. 10 No. 1 pp 16-22.

2/22/2013