Advantages of Target Costing in Organization

Hamidreza Jalaee

Department of Management, Aliabad Katoul Branch, Islamic Azad University, Aliabad Katoul, IRAN
E-mail: hr_jalaee@yahoo.com

Abstract
Target costing is primarily a technique for profit management. Its objective is to ensure that future products generate sufficient profits to enable the firm to achieve its longterm profit plans. This objective can only be achieved if products are designed to satisfy the demands of the firm’s customers and to be manufactured at a sufficiently low cost. Target costing systems first identify the cost at which the product must be manufactured if it is to achieve its profit objective and then create a disciplined environment to help ensure that the target cost is achieved. In this paper the a briefly explanation and some advantages of target costing were mentioned.

Keywords: Target costing, Organization, Advantages.

Introduction
Typically, conventional costing attempts to work out the cost of producing an item incorporating the costs of resources that are currently used or consumed. Therefore, for each unit made the classical variable costs of material, direct labour and variable overheads are included (the total of these is the marginal cost of production), together with a share of the fixed production costs. The fixed production costs can be included using a conventional overhead absorption rate or they can be accounted for using activity-based costing (ABC). ABC is more complex but almost certainly more accurate. However, whether conventional overhead treatment or ABC is used the overheads incorporated are usually based on the budgeted overheads for the current period.

Once the total absorption cost of units has been calculated, a mark-up (or gross profit percentage) is used to determine the selling price and the profit per unit. The mark-up is chosen so that if the budgeted sales are achieved, the organisation should make a profit.

There are two flaws in this approach (Garrett, 2011):

a Correspondence Author: Hamidreza Jalaee, Islamic Azad University, Aliabad Katoul Branch, Aliabad Katoul, IRAN, E-mail: hr_jalaee@yahoo.com
1. The product's price is based on its cost, but no-one might want to buy at that price. The product might incorporate features which customers do not value and therefore do not want to pay for, and competitors' products might be cheaper, or at least offer better value for money. This flaw is addressed by target costing.

2. The costs incorporated are the current costs only. They are the marginal costs plus a share of the fixed costs for the current accounting period. There may be other important costs which are not part of these categories, but without which the goods could not have been made. Examples include the research and development costs and any close down costs incurred at the end of the product's life. Why have these costs been excluded, particularly when selling prices have to be high enough to ensure that the product makes a profit. To make a profit, total revenue must exceed total costs in the long term. This flaw is addressed by lifecycle costing.

So, the accurate costing of objects and the reduction of those costs is one area that can influence success in organizations. Target costing is of pioneer systems in this field and have made organizations and companies use them (Rahnamayroodposhti, 2008). According to the CIMA Official Terminology (CIMA, 2005) a target cost is "a product cost estimate derived by subtracting a desired profit margin from a competitive market price." Sakurai defines target costing as a "cost management tool for reducing the overall cost of a product over its entire life cycle with the help of the production, engineering, R&D, marketing, and accounting departments" (Sakurai, 1989). Management utilizes this pricing technique to meet both the demands of its customers as well as company profit goals.

Target costing is not seen as a technique for cost control but a management process which involves all disciplines and brings a focus on the customer from the beginning of the design process. Cooper and Chew describe the value of target costing as its "ability to bring the challenge of the marketplace back through the chain of production to product designers" (Cooper, 1996). Most cost reduction and cost control efforts have focused on the production stage of the product life cycle. However, almost all production capabilities and costs are set during production planning and design. Value engineering is used in target costing to reduce product cost by analyzing the tradeoffs between different types and levels of product functionality and total product cost. Effective cost management and cost control must be emphasized and start at the design stage of a product’s life, accordingly, research and developments and any engineering changes must occur before production begins, resulting in lower costs and reduced "time-to-market" for new products. The use of cost
information and cost management during product design has received increasing attention in the literature (Dekker, 2003).

**What Is the Target Costing?**

Target costing is defined as a cost management tool for reducing the overall cost of a product over its product life cycle. Management utilizes this pricing technique to meet both the demands of its customers as well as company profit goals. Target costing is particularly popular among Japanese firms such as Toyota, Nissan, Toshiba and Daihatsu Motor in various industries such as automobile manufacturing, electronics, machine tooling, and precision machine manufacturing. As Japanese tastes became more diverse, assembly-oriented production grew in popularity. This growing demand for a diverse range of products shortened product life cycles. With shorter product life cycles more focus is placed on the costs occurring at each phase (development, planning and design.) (Sakurai, 1989)

Target costing is very much a marketing approach to costing. According to the Garrett paper (2011): The Chartered Institute of Marketing defines marketing as: 'The management process responsible for identifying, anticipating and satisfying customer requirements profitably.'

In marketing, customers rule, and marketing departments attempt to find answers to the following questions:

- Are customers homogeneous or can we identify different segments within the market?
- What features does each market segment want in the product?
- What price are customers willing to pay?
- To what competitor products or services are customers comparing ours?
- How will we advertise and distribute our products? (There are costs associated with those activities too.)

Marketing says that there is no point in management, engineers and accountants sitting in darkened rooms dreaming up products, putting them into production, adding on, say 50% for mark-up then hoping those products sell. At best this is corporate arrogance; at worst it is corporate suicide. Note that marketing is not a passive approach, and management cannot simply rely on customers volunteering their ideas. Management should anticipate customer requirements, perhaps by developing prototypes and using other market research techniques (Garrett, 2011).

Of course, there will probably be a range of products and prices, but the company cannot dictate to the market, customers or competitors. There are powerful constraints on the product and its price and the company has to make the required product, sell it at an acceptable and competitive
price and, at the same time, make a profit. If the profit is going to be adequate, the costs have to be sufficiently low. Therefore, instead of starting with the cost and working to the selling price by adding on the expected margin, target costing will start with the selling price of a particular product and work back to the cost by removing the profit element. This means that the company has to find ways of not exceeding that cost. For example, if a company normally expects a mark-up on cost of 50% and estimates that a new product will sell successfully at a price of $12, then the maximum cost of production should be $8 (Garrett, 2011).

\[
\text{Cost} + \text{Mark-up} = \text{Selling price} \\
100\% \quad 50\% \quad 150\% \\
$8 \quad $4 \quad $12
\]

**Some Research on Target Costing**

The strategic pricing approach changes over the sales life cycle of the product. In the first phase, pricing is set relatively high to recover development costs and to take advantage of product differentiation and the new demand for the product. In the second phase, pricing is likely to stay relatively high as the firm attempts to build profitability in the growing market. Alternatively, to maintain or increase market share at this time, relatively low prices (“penetration pricing”) might be used. In the latter phases, pricing becomes more competitive, and target costing and life-cycle costing methods are used, as the firm becomes more of a price taker rather than a price setter, and efforts are made to reduce upstream (for product enhancements) and downstream costs.

A desired, or target, cost is set before creating or even designing the product. Management bases the target cost on the product’s predicted price and the company’s desired profit. In order to achieve the target cost, concentration on the cost reduction opportunities in the design stage rather than production, constantly reduction of costs during the product life cycle, participation of all departments of the company and all members of the value chain (research & development, design, production, marketing, distribution, customers and suppliers) to the process of determination and reduction of costs are required. According to the CIMA discussion paper key characteristics of successful target costing are to focus on the customer, emphasizing on cost reduction at early stages in product development, consideration of the whole product life-cycle, having a multidisciplinary process, good team members who understand their role and how it impacts cost, involvement of the whole value/supply chain, an iterative process and specific and real targets for improvement (CIMA,
In order to ensure that total costs are minimized for both the producer and the customer, successful target costing examines the full life-cycle cost of the product. This includes consideration of the purchase price, operating costs, maintenance and distribution costs (Swenson et al., 2003).

In a study of Toyota Australia’s target costing system, the International Federation of Accountants’ (IFAC) Financial and Management Accounting Committee (now Professional Accountants in Business) highlighted the multi-disciplinary involvement in the cost management process and the vital roles played by different functions (IFAC Financial and Management Accounting Committee, 1999). According to Gagne and Discenza, the target costing teams which are the most successful are those whose members have a basic understanding of how their work is translated into numbers which represent the firm’s performance, using indicators which are meaningful to them (Gagne & Discenza, 1995).

In addition, the best team members are those who have rotated through several departments, including design, purchasing and marketing before being assigned to a cost-planning project, as broad backgrounds give team members a unique ability to spot and implement ways to improve costs. Working with the company’s supply chain to identify opportunities for cost savings is very important. This is particularly important where a high proportion of the total cost of a product is in purchased raw materials and components, and target costing goals would be impossible to achieve without supplier involvement. Some companies view their supply chains as part of an "extended enterprise" where design and cost information is shared and inter-company teams are established to meet cost reduction goals (Swenson et al., 2003). Banham identifies getting suppliers to buy in to target costing as probably the most difficult aspect of target costing as experienced by US companies implementing the process (Banham, 2000). Amongst the methods used to achieve this are joint classes and team-building and promises of shared savings.

**Advantages of Target Costing**

Compared to traditional standard costing approaches in which an estimate of product, general administrative, marketing, and distribution costs is taken into consideration, target costing takes on a more proactive approach to pricing. Traditional costing determines cost based on the design of goods, adds a markup and establishes a price. In comparison, the marketplace directs target costing by first setting a selling price, then subtracting target income and finally reaching a cost. Traditionally, a cost figure is obtained, implemented and once found to be poorly configured, sent back to management and engineers for reworking of production processes and cutting of costs. In comparison, target costing utilizes costing information and focuses on the best possible price up
front, preventing wasted time on after-the-fact discussions concerning design and re-engineering of
the product.

The decision making process involves a cross functional team, in which employees from various
departments (Production, Engineering, R&D, Marketing, and Accounting) are given the
responsibility of determining an acceptable market price and corresponding Return on Sales, as well
as a feasible cost in which a given item may be produced. In order to minimize costs, team members
focus on eliminating non-value-added costs of the process, improving product design and modifying
process methods. Target costing, in particular, emphasizes the reduction of costs during the planning
and design stage of the product life cycle since the majority of product cost is determined at this
stage. In comparison to traditional product costing methods, target costing allocates more of the total
cost to the development stage, simultaneously reducing costs during the production stage. A number
of cost-engineering techniques are used in the cost reduction process. Just-in-Time, Total Quality
Control, Material Requirements Planning and Value Engineering are among such methods promoted
by target costing. With the increased popularity of assembly-oriented industries, Economic Order
Quantity analysis, a traditional means of keeping certain amounts of inventory on hand, became less
useful. Instead, many firms, realizing the dangers of housing high inventory, turned to Just-In-Time
and Material Requirements Planning. JIT and MRP provided a great advantage to these companies
that manufacture high variety, low-volume products.

Value engineering involves the design of a product after gathering input from employees and
from various departments within a company, each offering a different perspective on possible cost
minimization tactics. Value engineering considers all aspects of the value chain and frequently
involves individuals outside of the company such as suppliers in order to reach a decision that
encompasses the most successful combination of price and quality. Total Quality Control is a
Japanese process that initially developed in the United States as a method of Quality Control.
Inspection is the main issue that distinguishes between the two. TQC incorporates QC (inspection)
activities throughout a company, rather than in isolation within specific departments.

Initially a project is either accepted or rejected based on marketability and cost and profit data.
Once a project is accepted, the engineering department constructs an engineering development plan.
This plan considers all aspects of product cost up-front. Target profit is then subtracted from
expected sales to reach an estimate of allowable cost. In order to successfully reach this allowable
cost, a great deal of effort is required from each department to tighten overall cost. Individual
processes are evaluated in order to direct efforts toward the most valuable and feasible cost saving
areas. The prevalence of assembly-oriented products along with shortened product life cycles has
contributed to the success of target costing. Many firms have turned to target costing as a way of improving the price and quality of their products, creating a benefit in terms of a company’s profits as well as increased customer satisfaction. Target costing adds value to the production process by eliminating non-value added activities, thus paving the way for decreased costs passed on to the consumer. Target costing enables companies to ascertain a more realistic price as well as strengthen competition among firms to offer quality products at lower costs. (Sakurai, 1989)

Table1. Target Costing vs. Standard Costing (Sakurai, 1989)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Target Costing</th>
<th>Traditional Standard Costing</th>
</tr>
</thead>
<tbody>
<tr>
<td>When applied</td>
<td>During the Planning and Design Stage of the product's life cycle.</td>
<td>Applied during the Production Stage of the product's life cycle.</td>
</tr>
<tr>
<td>Approach</td>
<td>Involves a proactive Cost Planning Approach where pricing is considered prior to production</td>
<td>Involves a reactive Cost Control Approach during production</td>
</tr>
<tr>
<td>Type of Industry</td>
<td>Assembly Oriented Industries (Variety, medium to small volume production)</td>
<td>Process-Oriented Industries (Continuous production)</td>
</tr>
<tr>
<td>Best-Suited</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Garrett (2011) said that this is a powerful discipline imposed on the company. The main results are:

- The establishment of multifunctional teams consisting of marketing people, cost accountants, production managers, quality control professionals and others. These teams are vital to the design and manufacturing decisions required to determine the price and feature combinations that are most likely to appeal to potential buyers of products.
- An emphasis on the planning and design stage. This becomes very important to the cost of the product because if something is designed such that it is needlessly expensive to make, it does not matter how efficient the production process is, it will always be a struggle to make satisfactory profits.

Here are some of the decisions, made at the design stage, which can affect the cost of a product (Garrett, 2011):

- the features of the product
- how to avoid 'over design'
- the number of components needed
• whether the components are standard or specialised
• the complexity of machining and construction
• where the product can be made
• what to make in-house and what to sub-contract
• the quality of the product
• the batch size in which the product can be made.

You will see from this list that ABC can also play an important part in target costing. By understanding the cost drivers (cost causers) a company can better control its costs. For example, costs could be driven down by increasing batch size, or reducing the number of components that have to be handled by stores. The concept of value engineering (or value analysis) can be important here. Value engineering aims to reduce costs by identifying those parts of a product or service which do not add value - where ‘value’ is made up of both:
• use value (the ability of the product or service to do what it sets out to do - its function) and
• Esteem value (the status that ownership or use confers).

The aim of value engineering is to maximize use and esteem values while reducing costs.

For example, if you are selling perfume, the design of its packaging is important. The perfume could be held in a plain glass (or plastic) bottle, and although that would not damage the use value of the product, it would damage the esteem value. The company would be unwise to try to reduce costs by economizing too much on packaging. Similarly, if a company is trying to reduce the costs of manufacturing a car, there might be many components that could be satisfactorily replaced by cheaper or simpler ones without damaging either use or esteem values. However, there will be some components that are vital to use value (perhaps elements of the suspension system) and others which endow the product with esteem value (the quality of the paint and the upholstery).

Result

A target cost is the allowable amount of cost that can be incurred on a product and still earn the required profit from that product. It is a market driven cost that is computed before a product is produced. A budgeted cost is a predetermined cost after a product is in production. A budget is an operational definition of an allowable cost broken by items and by periods. Target costing occurs within the product development cycle. This means it starts when a product is in its concept stages and ends when a product has been released for manufacturing.

Also, target costing has some advantages such as improving the understanding of the costs of products and services, where issues are identified early in the service development process at a
point where action can be taken, brings a focus on the final users of the service or product. It is multidisciplinary and involves staff from all areas in the cost analysis and encourages them to take responsibility for managing the costs. It provides a framework which encourages a focus on the wider supply chain, in effect a whole systems approach. Target costing can be used by service organizations to look at the impact which new services have on the existing ones and to develop specific and real targets which ensure satisfactory financial performance and for highlighting other problems in areas such as purchasing which affect the cost of the product or service.

References
2. CIMA Discussion Paper, 2005. Target costing in the NHS.
7. Garrett, Ken, 2011. Target costing and lifecycle costing, Available at: http://www.acca.co.uk/students/acca/paperf5/syllabus_a/3307473