

TARGET COSTING

“We tend to build up a model of the product, determine what it is going to cost and then ask whether we can sell it for that. The Japanese turn around. They say, “It’s got to sell for X. Let’s work backwards to make sure we can achieve it”. I’ve never seen this done by a U.S company with the same intensity

- Robin Cooper – Professor, Harvard University

In today’s rapidly changing business environment, product innovation is one of the keys to a company’s survival and competitiveness. Manufacturers can no longer produce and market large volumes of standard products with a relatively stable market and technological climate. There has been a shift toward unstable, rapidly changing markets and technologies. To implement market-driven management across the organisation, measurement and cost control systems must be designed to motivate the desired consumer-oriented behaviour. The strategies that determine the direction of product innovation have become crucial to corporate management. Industrial marketers play a major role in product innovation, and cost accounting must support this role. Cost management methods must help with the production of new products that meet customer demands at the lowest cost, as well as with cost reduction of existing products by eliminating waste.

Japan’s Competitive Thinking Triggers Target Costing

One of the most influential changes in the practice of management to emerge is *kaizen* - the philosophy of continuous improvement. Originally a Japanese idea, it is being adopted around the world as an integral part of management strategy.

A variation of this concept is that of ‘kaizen costing’, in which the emphasis is on gradual ongoing cost reduction. Deriving from the thought of continuously improving costing, Japanese organisations are moving to a more radical approach referred to as *target costing* in a move to maintain the competitive edge.

The Japanese believe that the key to achieving a competitive edge is simplicity. They are beginning to realise there can be too much of a good thing, too much variety, too much flexibility and even too much customer satisfaction. Organisations such as Nippondenso were cited as using target-costing principles to reduce its product range, increase productivity and profitability. Additional Japanese companies utilising target costing to seek a competitive edge include:

Isuzu Motors

Toyota Motor Corporation

NEC

Sony

Sharp

Nissan

Target costing, although its concept is used throughout the product life cycle, is primarily used and most effective in the product development and design stage. Born out of the market-driven philosophy, target costing is based on the price-down, cost-down strategy, which has allowed companies to win considerable share of their respective markets.

In companies where target costing is used, there seems to be a different culture and attitude. They place more emphasis on their relative position in the market and product leadership. Since more than 80% of product cost is already determined by the time product design and processing is complete, cost management must start (and done substantially) at the design stage.

What is Target Costing?

There is no clear definition to target costing. Organisations that have implemented it have had to apply their own unique approach to the concept. In essence, it is a philosophy in which product development is based on what the market will pay for it, not on what it has cost to produce. In other words, market price becomes the determinant of cost and not the other way around, as is the practice with most organisations.

Target costing is a strategic management tool that seeks to reduce a product's cost over its lifetime. Therefore, the target cost is not necessarily the cost to currently build the product. Target costing presumes interaction between cost accounting and the rest of the firm; well-executed, long-range profit planning; and a commitment to continuous cost reduction. Its application in Japan has been well documented, but Western World firms also can use it to understand costs better and to enhance long-term profitability.

Breaking the Corporate Western World Mindset

Typically, Western World manufacturers have said: Here is my cost (Amount X). I have to receive a certain profit contribution rate above that, so that consequently I must sell my product for this price (Amount Y or $X/1 - \text{needed profit margin}$). Target costing reverses several decades of Western World pricing strategy by taking into account that our customers do not care about our costs—only about their own. Our selling price is their cost, and there the customer's concern ends.

Traditional Costing

Before target costing is addressed further, it is necessary to understand the current state for the majority of Western World firms. The traditional costing approach has the management accountant contributing only as a cost accountant, working with historical information and subsequent to many significant decisions, which have already been made. The management accountant may then provide information that in today's competitive environment triggers an after-the-fact response, often too late to contribute cost savings value to the company.

In the traditional model of costing, costs are the driver. As costs increase, prices are increased to sustain profit margins. Tried, but determined to not be so true, traditional costing abides by the following steps:

Assess market needs

Evaluate competing products

Develop new products

Decide whether to make or buy products or components

Calculate how much to invest in new processes

Set up new processes

Manufacture new products

Cost products

Set price

The Process of Implementation - Target Costing into a New Product

The target costing approach brings the management accountant into the process at the early planning stage. The management accountant is contributing to the early decisions—should the company be making this kind of product? What constraints need to be applied in the design stage? Is the market demand consistent with our projections? Can we achieve the determined return in this competitive of a market?

Market Driven Selling Price - Desired Profit = Target Cost

In the target costing model and opposed to the traditional method of costing, costs are not the driver rather they are driven. The market sets the price, management sets the profit margin, and the difference becomes the allowable cost—cost defined and constrained by price realities and profit goals. New and increasingly necessary, target costing abides to the following logical flow and procedures:

Establishing a Selling Price for the Product

The target costing process begins by establishing a selling price, based on market research, for the new product. From this target-selling price, the desired (target) profit is subtracted to determine the target cost. In all likelihood, this target is below the company's current manufacturing cost. Teams from many departments then perform functional cost analysis in an attempt to reduce costs to a level in the acceptable range. If the current cost estimate is at the target, the firm must decide whether or not to introduce the new product. If the current cost estimate is above the target, functional cost analysis is used to make changes and prepare another cost estimate.

Establishing a Target Profit for the Product

Marketing plays a crucial role in the determination of the target cost. The starting point for a target cost is the estimated selling price for the product determined by market analysis. Sales volume is also estimated and, from the total estimated sales revenue, the desired profit is subtracted. Management determines this desired profit margin in reference to the company's long-term strategy. Retail prices and sales volumes are proposed by the marketing function based on its research and the company's desired market share. Total sales revenue for each new product over its life can now be estimated. The target profit, usually determined by using return on sales, is subtracted from the total sales revenue. The target cost is now determined.

Determine the Target Cost

The target profit is subtracted from the target price to arrive at the target cost. Management accounting can play an important role in effectively determining target profits and target costs. Accountants can supply the information required to support marketing analysis for a new product and relate it to existing products. After the target cost is determined by subtracting the target profit from the target price, functional cost analysis is used to achieve the target cost. Functional cost analysis is a group activity typically involving employees from different departments (such as marketing, design, engineering, production, purchasing, and accounting) and is aimed at proposing alternatives for reducing overall product cost.

This team-oriented approach requires that the employees of different departments bring together their knowledge and experience in the organisation to contribute to the cost reduction process. Working with product designers, their motivation is not only to cut the number of parts but also to work toward the use of standard parts in designs that give products desired functions at a lower cost.

Perform Functional Cost Analysis and/or Value Engineering

Functional cost analysis requires the preparation of a logical diagram for each function of the product. It should be noted that this is not a diagram of each part of the product since it is the functions of a product that determine its success in the market. Each function and sub-function of the product is defined to show the various operations of the product.

Functional analysis is closely linked to value engineering. Functional analysis is a cost management system that focuses on the various functions of each product. The individual functions of a product become the set of cost objectives and provide the basis for the costing system. Value Engineering (VE) involves designing a product from different angles at a lower cost by reviewing the functions needed by customers. VE is used for purchasing, planning, design, production, and other processes on a company-wide basis. There are a variety of methods for conducting value engineering. The process generally starts with performance checks on test parts. Designs are changed to give each part a specific degree of performance. Then discussion turns to ways to cut costs while maintaining performance. The aim is to use the information provided by the functional analysis to propose alternatives for improving costs.

Determine the Cost Estimate

Functional analysis requires information concerning engineering specifications and accounting data. The actual manufacturing and the target cost for each product's functions are compared. Alternatives are identified to bring each function's actual cost estimate to its target cost.

Management accountants provide information on the cost effects of the proposed functional modifications. When needed, they prepare very detailed sets of cost tables that include the costs of alternative materials, of using different types of manufacturing technologies, and so on.

Decision: is the Cost Estimate on Target?

After the team consisting of members from the various functions of the company have used value engineering (as discussed in the following section) and functional cost analysis to determine the new product's estimated cost, the estimate is compared with the target cost. If the cost estimate exceeds the target cost, functional cost analysis is used again to reduce the estimated cost to the target cost.

It must be understood that this is not always a 'yes/no' decision model. Although functional analysis is performed to determine if the product can be produced for less than the target cost, often product introductions are accepted when the initial review has the actual cost exceeding the target. This subjective approach is taken when it can be determined that, over the life of the product, the firm will be able to produce it for less than currently possible, and less than the target cost.

Make the Final Decision

Once the cost estimates are on target, management makes the final decision to introduce the product based on manufacturing feasibility, market needs and consumer acceptability. If the decision is to go ahead with the product, manufacturing is instructed to proceed with production.

Once the decision has been made to manufacture the new product, there are other considerations necessary for successful implementation of the process. Since the target cost is often below the actual cost based on the current production technology, a team effort is required to enable the organisation to achieve the target cost. Teams of people from marketing, engineering, purchasing, manufacturing, and accounting work together to assure that a cost position on the product is such that the company can sell the product at its required market price to insure the desired target return on the product.

Finally, target costing does not end once the decision has been made to move the product into the production stage. The standard manufacturing cost of the product depends on specific production line conditions. For example, production on lines below capacity pushes costs up, while production on lines near full capacity leads to the best-cost performance. Often during the planning stage, it is difficult to visualise the line conditions and thus reflect accurately these conditions in cost estimates. Therefore, once the initial target cost has been calculated, the manufacturing division then initiates an effort to improve on the standard cost, in order to get it down to the target cost.

Achieving the Best Target Cost Possible

Potential world-class manufacturers have the resources available to lead the way in working towards the lowest target cost. Target costs can only be achieved and eventually improved upon when more people are involved in the design improvement process and work to further refine the responsible design engineer's best effort. To achieve the best target costs possible, these practical guidelines should be followed:

Do not spend man-years developing the ultimate product costs. Rather, allocate time to simply estimating or prorating these costs;

Ensure that each component and assembly design is reviewed by a cross functional group of managers. The intent of this review is not to design by committee but to generate new ideas on how the design engineer can achieve the target cost;

Provide the appropriate checks and balances within your product design department. Do not have the original engineer try to improve upon his product, assign a design engineer other than the original designer to improve the design;

Assign responsibility for pursuing cost opportunities to the specific group members according to their own areas of expertise.

Which Type of Company Would Benefit From Target Costing?

Whenever a new and innovative approach to doing business is discovered, the question arises as to which clients and potential clients might this methodology provide an appropriate fit. In addition, and consistent with many new financial or operational approaches, target costing may not be for everyone. Some companies, which seem to benefit most from target costing, are those, which maintain the following criteria:

Assembly-oriented industries, as opposed to repetitive-process industries that produce homogeneous products;

Involved heavily with the diversification of the product lines;

Use technologies of factory automation, including computer-aided design, flexible manufacturing systems, office automation, and computer-aided manufacturing;

Have experienced shorter product life cycles where the pay-back for factory automation typically must be achieved in less than eight years;

Must develop systems for reducing costs during the planning, design and development stages of a product's life cycle;

Are implementing management methods such as just-in-time, value engineering, and total quality control

Additional Factors Which Promote the Usefulness of Target Costing

The above listing is not completely exhaustive as a variety of factors are at work to promote the usefulness of target costing in other companies. First, products are experiencing shortening life cycles, so the design phase of a product is critical to managing costs. Manufacturing costs are driven primarily by the characteristics of the products and the process used to manufacture them. Manufacturing processes are determined by the nature of the product and the expected volume to be produced. Therefore, to a great extent, costs are determined in the design stage.

Another factor which encourages the use of target costing is product diversity. The types of products manufactured by companies have increased rapidly in recent years. Target costing, in both the design and production stages, helps manage costs effectively. However, applying target costing in the design stage has the greatest cost reduction potential and bottom-line impact.

Case Study – Culp Inc.

Culp, Inc., a US textile manufacturer for the home furnishings industry with net sales in FY 2008 of \$254M, introduced a target costing system in 1994. Beginning the project, they realised the need for better-cost management and have worked to overcome that issue. Culp's journey has led them to a realisation that cost management is different from other accounting efforts, and have undertaken a target costing program to help them build profits and decrease the cost of their products at the design stage.

“We implemented this system using a team approach to cost management and by bringing together the divergent groups in the company - accounting, engineering and operations - to make our cost system as up-to-the minute as possible

John M. Brausch, CMA – Cost Accounting Manager, Culp Inc.

At Culp, they recognised the importance of breaking down the traditional barriers of the firm toward cost management. This approach was addressed using a series of three strategies.

Strategy 1

Separate the functions of managerial and financial accounting so that each could serve its customer to the best advantage. This separation is important to any management accounting system evolution.

Strategy 2

Achieve a level of accurate product costing. The accuracy school of cost management obviously is concerned with accurate product costs. Although this goal sometimes sounds simplistic, it is not always that easy to get product costs as close to actual as possible.

Strategy 3

Going from the accuracy school to target costing. Costing products accurately is a worthy goal. Accurate product costing, however, in and of itself does little to improve the firm's position and does nothing to reduce costs. This strategy includes the discovery that an overwhelming majority of costs were created and built into the products before the manufacturing process ever begins.

Although it is used primarily in Japan, Western World companies can adopt the practice and accrue the benefits resulting from this application of strategic cost management. Cost management can play a major part in any firm's strategic efforts. Management accountants must become involved in the strategic decision-making processes of their firms. They have a wealth of information about the firm and its operating conditions.

Bibliography

Baker, William A., *"The Missing Element in Cost Management: Competitive Target Costing."* Industrial Management, March/April 1995.

Bhimani, Al and Okano, Hiroshi, *"Targeting Excellence: Target Cost Management at Toyota in the UK."* Management Accounting, June 1995.

Booth, Rupert, *"Hitting the Target."* Management Accounting, January 1995.

Brausch, John M., *"Beyond ABC: Targeting Costing for Profit Enhancement."* Management Accounting, November 1994.

Cooper, Robin., *"Japanese Cost Management Practices."* CMA Magazine, October 1994.

Corrigan, John, *"Target Costing – A New Approach."* Australian Accountant, April 1996.

Gagne, Margaret L. and Discenza, Richard, *"Target Costing."* Journal of Business & Industrial Marketing, 1995.

Hales, Robert and Staley, David, *"Mix Target Costing, QFD for Successful New Products."* Marketing News, January 2, 1995.

Koons, Frederick J., *"Applying ABC to Target Costs."* Western World Association of Cost Engineers Transactions, 1994.

Lee, John Y., *"Use Target Costing to Improve Your Bottom-Line."* CPA Journal, January 1994.

Newman, Richard G. and McKeller, John M., *"Target Pricing - A Challenge for Purchasing."* International Journal of Purchasing & Materials Management, Summer 1995.

Polakoff, Joel C., *"Hitting the Bull's Eye with Target Costing."* Corporate Controller, September/October 1992.

Whiteley, Stan, *"Are You Into Strategic Management Accounting?"* CMA Magazine, November 1995.

Worthy, Fred S., *"Japan's Smart Secret Weapon."* Fortune, August 12, 1991.



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