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TARGET COSTING: EXPLORING THE CONCEPT AND ITS RELATION TO COMPETITIVENESS

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TÍTULO DO TRABALHO: TARGET COSTING - EXPLORING THE CONCEPT AND ITS RELATION TO COMPETITIVENESS

ABSTRACT

How can the practice of Target Costing enhance business competitiveness? Though the management accounting literature has been enriched by various artifacts such as ABC Costing, Product Life Cycle Costing, Total Cost of Ownership and Target Costing, there is still need for managers to understand how these artifacts may increase the ability of businesses to compete. The purpose of this paper is to explore Target Costing as a managerial accounting artifact, considering its various definitions and distinctiveness and its applicability as an employable organizational process, and argue how it should promote competitive advantage. This paper should help increase the interface between management accounting and strategic management, facilitating implementation issues by the various actors in the organizational setting.

KEYWORDS: Target costing, competitive advantage, innovation.

INTRODUCTION

One of the main tasks of management accounting academics is to understand the environment in which management accounting is practiced so that assertive commands should be introduced in organizational decision-making to enhance its competitiveness. According to Kaplan and Norton (1996) and Waweru et al. (2004), a number of changes have impacted the praxis of management accounting in the last three decades, i.e., advances in information technology, highly competitive environments, economic recession, new management strategies, and a new focus on quality and customer services. These changes have posed many challenges for managers from a competitive perspective: (1) Advances in information technology has allowed continuous flow of data and information for the right managers at the right time for decision making; thus, timing has become increasingly important for competitiveness because it allows decisions to be made assertively and earlier than competitors. (2) In the context of highly competitive environments, in many industries innovation requires rare skilled professionals and thus, companies compete for them; on the other hand, the more technology and know-how become available, the less effective are entry barriers. (3) In an economic recession scenario, a better alignment between customer expectancies is required. As a result, decisions concerning the choice of markets and respective strategies are thoroughly revised. (4) In face of deregulamentation, governments are pressured by corporations and groups for improvement in trade barriers or restructuring of industries' legal requirements. As a result, huge bureaucratic structures as well as small businesses compete in the same arena of dynamic and innovative companies. (5) New management strategies are very important. Not only under uncertain economic scenarios companies are motivated by improvements of processes and management; new management strategies should always be in the mind of managers as ways to reduce uncertainty or increase strategic competence. (6) The focus in quality and customer services has become key competitive criteria. Products are less and less responsible for customer perceived value; services on the other hand have become more responsible for value creation. Thus, in order for companies to compete, product quality (attributes most valued by the customer) is requisite (BIEDENBACH; SÖDERHOLM, 2008; WAWERU et al, 2004)

In the context of manufacturing Davila and Wouters (2004) argue that once innovations are ubiquitous in major organizations of an industry, one of the main sources of competitive advantage turns out to be product development and this occurs mainly due to economies of scope. One important managerial approach that supports this innovation

strategy is cost management, specifically target costing. Target costing may be understood generally as an artifact employed during product development processes with an integrative focus, thus promoting a systemic approach toward new products and processes.

The purpose of this essay is to analyze target costing as a managerial accounting artifact, considering its various definitions, to analyze how it can be put into practice by means of an organizational process and, finally, to discuss how target costing can play a leading role in the search for competitive advantage. With this essay, we expect to disseminate target costing as a relevant tool for entrepreneurship and competitiveness, especially in the context of small growing businesses, as well as facilitating its implementation by the various actors in an organizational setting.

EXPLORING TARGET COSTING AND ITS RELEVANCE

According to Wheelwright and Clark (1992) and Davila and Wouters (2004), most of the profits that a certain product is expected to generate is well-thought-out during the product planning phase of product management, that is, before it is distributed or marketed. This assumption is also present in the capital budgeting literature and it has to do with the fact that during development phase, management should keep in mind the features or attributes that "(1) give the product and edge over competing offerings and (2) affect the costs that will shape profit margins" (DAVILA; WOUTERS, 2004). Davila and Wouters (2004) also consider product design to be a key driver of revenues, not only through customer appeal, but also through technological performance and careful timing for its introduction into the market. Product design also affects costs: "as a rule of thumb, 80 percent of the costs are engineered in during product development" (COOPER; SLAGMULDER, 1999; DAVILA; WOUTERS, 2004), even though there is still little field research on this matter.

The literature considers the origins of Target Costing within the military context, in the United States Department of Defense, which was used as a rule of thumb to define tolerable levels of cost over a life cycle of weapons development (MICHAELS; WOOD, 1989; EVERAERT, 2006). This antecedent of Target Costing was called Design-to-Cost, a tool extremely necessary to carry on military projects under limited budgets. An important difference between these two concepts though, is that while Design-to-Cost seems to focus on internal matters, such as limited budgets, Target Costing encompasses more variables such as product life cycle, market, and competition. Etymologically, Target Costing is considered a mistranslation of what is called Genka Kikaku in Japanese, meaning "cost planning;" earlier publications have used expressions for Target Costing such as "cost planning" and "cost projection systems" (EVERAERT, 2006; KATO, 1993). Moreover, Dekker and Smidt (2003) found other names in use, such as "basic net price," "manufacturing cost reduction," "pre-calculation," and "direct cost feasibility study".

Unlike full costing, direct costing or Activity-Based Costing (ABC), Target Costing is not a costing system. Everaert et al. (2006) elucidates that Target Costing is "a cost management technique used during new product development (NPD)" in which "a cost target is set for a new product and the NPD team is motivated to attain that target before product launch". This definition, however, lacks important considerations: it only considers the development phase of the product; it deals only with a target cost, leaving the feature of profit management aside; finally, it does not explain by which means Target Costing is achieved within the organization. To Cooper and Slagmulder (1999) it "is primarily a technique to strategically manage a company's future profits. It achieves this objective by determining the life-cycle cost at which a company must produce a proposed product with specified functionality and quality if the product is to be profitable at its anticipated selling price" (COOPER; SLAGMULDER, 1999). From this definition, there are also two limitations: target costing it is not a technique by itself, but a managerial artifact from which management can make better or more assertive decisions; also, it does not mention how it can be achieved

in the organizational context. To Ansari et al. (1997), target costing is a "system of profit planning and cost management that is price led, customer focused, design centered and cross-functional". Furthermore, the author adds that target costing "initiates cost management at the earliest stages of product development and applies it throughout the product life cycle by actively involving the entire value chain". From this definition there are two important aspects about target costing: its focus on customers and the market; the product or service design at the heart of this artifact in accordance with the product life cycle; and the involvement of different functional areas of the organization, as well as the value chain, both necessary efforts in order to convert strategy into action. However, it is not essentially a system, though a system may be generated from the use of target costing.

From the aforementioned definitions and critiques, a fourth one, encompassing key aspects of target costing may be stated: a cost management and profit planning artifact that involves the setting of cost controls based on market prices and customer preferences, integrating different functional areas of the organization or different organizations around product and services projects.

For Cooper and Slagmulder (1999), target costing allows companies to "prevent costs during design rather than reducing costs after the fact". In this way, it keeps management focused on strategic issues rather than in activities aimed at fixing strategies or operations, but at the same time, emphasizes the fundamental role of controlling. According to Cooper and Chew (1996), target costing also contributes to assurances of profitability levels in a continuous time frame once "products that show up as low-margin or unprofitable during NPD can be quickly dropped" and thus, only projects with high success probability are chosen.

Target costing brings two important groups together: on the one hand engineers, researchers and managers, the main people directly involved with technical aspects of the product, from its conception to market testing, and the customers, who are willing to pay according to their attribute preferences. Target costing is then concerned with "features, quality and time issues early in the process and to balance cost and features against customers' willingness to pay for all these Ansari et al. (1997).

With Target costing, the efforts of cost management migrate from production to planning and development, which makes easier and cheaper to manage costs in comparison to a product already introduced in the market. This also ensures desirable or at least predictable levels of cost for a certain product or life cycle phase. For this reason, research and development (R&D) spending might be better valued, once it helps identifying and projecting with relative certainty the cost levels of innovative products. Furthermore, to Anderson and Sedatole (1998) and Davila and Wouters (2004), *ceteris paribus*, any project aimed at lessening costs after the introduction of a product into the market raises quality issues for management.

Although a very useful managerial artifact, Ansari et al. (1997) and Davila and Wouters (2004) consider its effectiveness especially when product costs are crucial to its success and also when cost modeling is viable and significantly simple. In addition, Cooper and Slagmulder (1999) emphasize the need for it to be a disciplined process in order to be effective. However, "as cost models become more complex and engineers focus their efforts on solving cutting-edge-technology problems under demanding time and budget constraints, the benefits of target costing may be less significant" (DAVILA; WOUTERS, 2004).

TARGET COSTING AS AN ORGANIZATIONAL PROCESS

Cooper and Slagmulder (1999), supported by Böer and Ettlie (1999), Brausch (1994), Everaert et al. (2006) and Fisher (1995), consider three major set of procedures for target costing that should delineate it as an organizational process: Market-driven costing, Product-level costing, and Component-level costing.

Market-driven costing is obtained through a list of five steps:

1. Set the company's long-term sales and profit objectives highlighting the primary role of target costing as a technique for profit management.
2. Structure the product lines to achieve maximum profitability.
3. Set the product's target selling price, i.e., the price at which the product is expected to sell when launched.
4. Establish the target profit margin the company must earn on the product to achieve its long-term profit objectives.
5. Calculate the allowable cost by subtracting the target profit margin from the target selling price.

The aspect of discipline is considered by Cooper and Slagmulder (1999) as "forcing alignment with the marketplace and requiring a new level of specificity about what customers want and what prices they are prepared to pay". For this reason, market analysis and marketing strategies are crucial for determining the allowable costs. In turn, Cooper and Slagmulder (1999) state that Target Costing Systems "use these allowable costs to transmit the competitive cost pressures that the company faces to the product designers" and so, "product-level target costing disciplines and focuses the product designer's creativity on achieving the cost aspect of this objective".

After product-level target costs are set for an individual company, it is necessary to go further and break down these costs into the component level; in this way, the costs are transmitted to suppliers. Suppliers, sequentially, should focus on discovering ways to design and manufacture its client's externally sourced components and parts under the criterion of obtaining satisfactory rates of return with the selling of such components and parts to its client. As a result, "component-level target costing helps discipline and focus supplier's creativity in ways beneficial to the buyer" (COOPER; SLAGMULDER, 1999).

Product-level costing considers a second set of procedures:

1. Establish the attainable product-level target cost.
2. Control the target costing process so that the target cost is met wherever feasible.
3. Accomplish the product's cost in accordance with the target level, but always setting functionality and quality as key objectives, through the use of value engineering and other engineering-based cost reduction techniques.

A third and final major set of procedures concerns component-level costing. Like the product-level costing, it comprises three procedures:

1. Identify major functions or subassemblies that provide functionality to the product or service and decompose the product-level target cost according to this criteria.
2. Establish component-level target costs.
3. Manage suppliers: select suppliers and reward them according to their creative ways in reaching cost reduction of components supplied.

Additionally, Cooper and Slagmulder (1999) argue that "even though the product-level target costing process cannot begin in earnest until the company establishes the allowable cost", the organization can initiate complementary activities related to market-driven costing like identifying current costs and have suppliers engaged around it. There is also a continuous task of going back to field and apply marketing research in order to better align product functionality and quality and target selling price.

TARGET COSTING AND COMPETITIVENESS

Before analyzing how target costing should enhance a business ability to compete on the long run, it is important to understand what makes it fit to a given business. Davilla and Wouters (2004), for example, mention two aspects that drive the use of cost management (and its approaches) in product development: (1) circumstances in which criteria are more relevant for management than product costs themselves and (2) when it is difficult to model the cost

behavior of shared resources. From these considerations, target costing is a more effective tool in businesses that draw heavily on intangible resources and capabilities (allowing flexibility) and that are positioned in providing specific products or services based on key purchasing criteria or attributes that put the product or service in a place of distinction in comparison to those of competitors.

Literature shows a consensus that deliberately or not strategy is guided by competitive advantage, the ability won through attributes and resources to obtain superior performance in relation to other players in the same industry (PORTER, 1980). Correspondingly, it is said that a business possess competitive advantage when it implements a value creating strategy that is not being simultaneously implemented by any other actual or potential competitor (BARNEY, 1991). Coyne (1986), in addition, argues that competitive advantage is only relevant when it helps it achieve organizational goals and when it promotes genuinely lasting benefits. Specifically, this relevance is witnessed when three distinct conditions are evidenced: (1) when clients perceive a consistent difference in key attributes in a certain product or service of a business from those of competitors; (2) when such difference is direct consequence of capabilities differences between the business and its competitors; and (3) when there is expectation that differences between both important attributes and capabilities persist over time (COYNE, 1986).

If a business, then, implements and uses Target Costing and expects it to be key to competitive advantage, target cost should push organizational capabilities to align products or services to specific markets demands or, better yet, it should be an effective vehicle to translate market demands (worth responding to) into functional products or services and make sure they will also be aligned to these changing demands over time. This means that target costing should contribute to the processes of product and service adaptation, creation and structuring based on market changing demands. This innovation approach also considers time-to-market. At times, a business response to certain market demands already places them in a position of advantage; to others, anticipating market demands or creating them are crucial in gaining that advantage and it should require additional capabilities and a superior ability in managing time-to-market.

Successful product or service adaptation, creation, structuring and launching to market pulled by target costing may demand complex negotiations with suppliers and, if competitive advantage is to be gained on the long run through the creation of superior product or service delivery (value chain leadership), it is reasonable that a business would have its bargaining power with its suppliers increased. Alternatively, may put the business in better bargaining conditions with customers: if on the one hand target costing should reduce quality problems, cycle time and product cost, on the other hand, by offering distinguished products in terms of quality and superior performance and convenience (based on specific market demands), the business may charge a premium price for such value (even if target costing is based on market prices). Coyne (1986), to illustrate this situation, argues that for a business to explore the potential of a competitive advantage in a product segment or market, there should be significant differences perceived by the market reflected in some product or attribute delivered, a key buying criterion. Likewise, the product or service should be sufficiently differentiated in order to gain loyalty of a significant group of buyers/clients.

Measures used to evaluate the degree of competitive advantage or competitive scorecards to a business are market share or profitability (DRUCKER, 1998; PORTER, 1980; KREPS, 2004, p. 479). Day et al. (1997, p. 60), however, acknowledge the use of other performance measures such as customer satisfaction and customer loyalty; these reflect more directly customer responses to business positioning. A clear innovation policy facilitated by target costing should promote customer loyalty. If target costing is used to accelerate the pace with which products or services are innovated (create, radically changed or gradually

changed) based in specific functionalities or attributes demanded by a market, and if such pace is perceived to be superior than of competitors, the business is being successful in associating its brand with key purchasing criteria such as quality, sophistication, usefulness, etc.

Lastly, innovation and customer loyalty, fundamental components of brand equity should create entry barriers to other competitors. The former two components, however, are generally achieved on the long run and, thus, target costing should be an integral part of an organization's culture. The main competitiveness issue in this argument is how well (effectively and efficiently) a business can incorporate target costing philosophy into its culture in relation to competitors. This incorporation, in turn, may yield more assertive market demand predictions, more commitment in modifying internal processes as well as into negotiating terms with suppliers and establishing cooperative strategies.

MANAGERIAL LIMITATIONS IN TARGET COSTING

Target Costing is also criticized due to managerial applicability. Davila and Wouters (2004) list four limitations of this tool, which may affect its premises of fostering competitive advantage, although they are not necessarily consistent in the literature.

Firstly, there is an argument that Target Costing focuses excessively on cost drivers and tends to ignore revenue drivers such as time-to-market technology or considering changing customer needs. These issues seem to be much more relevant than cost issues than product cost drivers in high-technology industries. Thus, since target costing is bound to product development process, managerial attention tends to ignore critical success factors and privilege cost drivers.

The second limitation of target costing is that it is time demanding, especially when time-to-market and technology are fundamental to profitability. In such context, product development teams are not able to focus on alternative searching and estimate their cost effect to the final product/service, and choose the one that minimizes costs (DAVILA; WOUTERS, 2004; KOGA, 1999).

Third, target costing may be too linear and bureaucratic. The various procedures involved in it, from assessing customer needs to applying value reengineering techniques to achieve the target cost, may represent a bureaucratic process, and thus, the necessary iteration in all these stages to assure the best minimum cost alternative would be ignored.

Finally, the level of detail in target costing is another limitation. Like Davila and Wouters (2004), Ansari et al. (1997) and Cooper and Slagmulder (1999) express the need for complex cost models such as ABC costing and life cycle costing applications in order to capture the entire value chain. Furthermore, in hypercompetitive environments, these applications usually reflect current processes instead of prospect processes mandatory for product development decisions. In this way, there should be time dedicated to the development of capabilities, especially those related to team work.

From the arguments above, Davila and Wouters (2004) argue that target costing is more useful in stable industries in whose product life cycles can be easily forecasted and where pricing is clearly established. Furthermore, technological changes need to be fully understood and product costs should be very important to organization's profitability.

CONCLUSIONS

The purpose of this essay was to analyze target costing as a managerial accounting artifact, considering its various definitions, its usage as an organizational process, and analyze how it should promote competitive advantage to businesses. Although there is a relevant body of research on target costing, many questions are still in need of clarification, especially its linkages to competitive advantage: target costing implementation in various organizational contexts, how it can improve a business time-to-market, which organizational capabilities are more demanded to link this artifact to attainable strategies, which industries would be more

inclined to use target costing and how managers perceive its benefits, how to improve the relationship between total cost of ownership (from the consumer's point of view) to target costing (from the organization's point of view); and, finally, which incentives can be effective in the organization setting in order to management make full use of target costing.

Though there are limitations, an implementation culture based on strategic attainable goals should clarify to all involved with it in an organization why it is in use and thus, minimize obstacles and misuse of target costing. The focus not in the process itself, but what may be achieved with a well-structured target costing process. In this way, target costing can be a very important piece of a business strategic management, fostering competitive advantage based on innovation and time-to-market, as well as setting the basis for effective industry positioning.

Target costing demands a series of cost data and information that are key in guiding managerial efforts to attain strategic goals, i.e., product and services innovation. Entrepreneurs can profit from this managerial accounting artifact once it may reveal the cost structures inherent in a business and search for creative ways to start business operations. Likewise, to managers, it should discipline their strategic efforts in staying ahead of competitors, though the biggest challenge is to keep this vision over time.

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