

The Utilization of Target Costing in The Telecom Industry

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Abstract: The telecommunications industry in Europe has been under especially heavy cost pressure for years – at best, revenues are stagnating, but in most cases, they are in decline, an indicator of a mature market. Consequently, cost optimization becomes more important every year, and company structures that evolved during the growth phase of the business cycle must now be adjusted to align with profitability expectations. Faced with increasing global competition, many telecom companies are finding that cost-based pricing is becoming a relic of the past, whereas price-based or target costing is emerging as a key strategic tool. If they want to be ready to face the current and imminent changes in the industry, telcos will have to become more efficient in their planning process. Target costing itself is no revolution in the planning process – a focus on the customer’s willingness to pay is revolutionary and in combination with demand-based charging the revolution begins reality. Thus, the target costing method focuses on a market oriented management, aiming to attract and satisfy the customer on the one hand and provide more efficient planning process on the other hand.

Key words: Target Costing, Cost Management, Planning, Telecommunications

JEL classification: M2, M41, L96

I. Introduction

Common to most target-cost applications is a process that starts with competitive end-use market prices as the basis for determining acceptable manufacturing costs and a belief that large-scale cost planning and reduction must occur early in the product life cycle. Several authors, in fact, assume that target costing is applicable only early in the product life cycle (i.e., during product specification and design).

For example, Cooper states: “The purpose of target costing is to identify the production cost for a proposed product such that the product, when sold, generates the desired profit margin. The focus of target costing is to reduce the cost of a product through changes in its design. It is therefore applied during the design phase of a product’s life cycle.”³ Target costing is a process for ensuring that a product launched with specified functionality, quality, and sales price can be produced at a life-cycle cost that generates the desired level of profitability.⁴ In this paper, target costing is defined as a system of profit planning and cost management that is price-led, design-centered and cross functional.⁵

The target cost is a financial goal for the full cost of an item of consumption, derived from assessments of selling price and desired profit. In a target-costing framework, product selling price is constrained by the telecommunication market and is determined by analysis along the entire industry value chain and across all functions in the company. Top management sets the desired level of profit on the basis of company strategy and financial goals.

Budgeting and financial planning are not stand-alone activities. Budgeting or making a budget is the act of quantifying cost or pricing for an item or list of items, and in the case of communications, the list is likely to be a

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³ Cooper, R. 1994. How Japanese Manufacturing Firms Implement Target Costing Systems, Claremont Graduate School, working paper

⁴ Cooper, R., &Slagmulder, R. 1997. Target costing and value engineering, Portland, OR: Productivity Press.

⁵Ansari, S., Bell, J., and CAM-I Target Costing Group, 1997. Target Costing: The Next Frontier in Strategic Cost Management, Irwin-McGraw Hill, Chicago.

combination of goods and services. The items on the list may be a one-time occurrence or recur on some periodic basis. Financial planning is the process of striking several budgets based on alternative scenarios to arrive at a point where the budget fits within an overall set of financial parameters for the organization. The result of the budgeting and planning processes provide a financial benchmark within the overall business plan. The budget part of the business plan includes revenue, expenses, and net income, or if expenses exceed revenue, a loss, which is a big no-no. Of course, there are traditional methods that can be used throughout the planning process to tackle these challenges. One option would be a "zero budgeting" approach, which essentially ignores whatever has been budgeted and planned in the past. Every resource requester is required to explain anew why the requested funds would be money well spent. Even if this approach is followed, however, certain aspects of the past cannot be ignored and/or changed. Moreover, it cannot work unless the staff is willing to try new approaches and to take risks. We must never forget that bringing about (cultural) change is difficult and is rarely to be achieved without sustained and active battling of the attitude that "we have always done it that way".

Another option is to combine a bottom-up and a top-down approach to planning: management expectations must be clearly formulated, and possible buffers arising from risk-averse bottom-up planning must be identified and reduced. The process also ties up additional resources and causes the finance department to challenge all assumptions of business units without exception – circumstances that might have a negative impact on the atmosphere in the company and over time generate a culture of mistrust between departments. No management in larger companies will decide to take away the top-down contribution from the planning process, but different ways exist to provide more freedom for making decisions at the level of accountability for costs; this in turn unlocks the door to a inspired process that can pursue disruptive paths on the planning course. Targets can exercise immense power – and that is true in both negative and positive terms. If, on the one hand, the stretch is too tough and overly ambitious, the results will be frustration that will likely trigger non-productive discussions about achievability. On the other hand, targets with a realistic stretch encourage employees to undertake a search for solutions that is highly oriented to results, an approach that ultimately benefits the company. Obviously, setting and achieving realistic targets is the way to go. Two simple concepts can help: target costing focuses attention in the costing phase, and a demand-based charging model acts as a reliable control mechanism. Hence, although target costing can be used in service industries, it may face a number of problems.

II. LITERATURE REVIEW AND THEORETICAL BACKGROUND

Target costing is a technique which developed in the early 1970s in Japan's manufacturing industry as consumer demand for more diversified products and shorter product life cycles made the development and planning stages of new products more important. At the same time increased automation and decreased labor costs made standard costing less important as the main method of cost management within manufacturing companies. It was also recognized that the major part of product cost (around 80%) is determined at the design stage and that cost management needed to start earlier in the process. 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.⁶ Since target costing, like many other management practices and philosophies, is environment-specific, it is not surprising to see many different concepts and definitions. As Hiromoto states, "They don't simply design products to make better use of technologies and work flows; they design and build products that will meet the price required for market success—whether or not that price is supported by current manufacturing practices. Their management accounting systems incorporate this commitment."⁷ Similarly, Sakurai writes that "...target costing can be 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, R&D, marketing and accounting departments." Later, "genkakikaku" was viewed as a tool of profit management. As Monden, for example, states: "Target costing is defined as a companywide profit management activity during the new product development stage that includes: (1) planning products that have customer-pleasing quality, (2) determining target costs (including target investment costs) for the new product to yield the target profit required over the medium to long term given the current market conditions, and (3) devising ways to make the product design achieve target costs while also satisfying customer needs for quality and prompt delivery."⁸ Peter Horváth defines it as "a comprehensive cost planning, cost management, and cost control concept...used primarily at the early stages of product design in order to influence product cost structures depending on the market derived requirements. The target

⁶Sakurai, M. 1989. Target Costing and How to Use It, *Journal of Cost Management for the Manufacturing Industry*, pp 39-50.

⁷Hiromoto, T., 1989. *Management accounting in Japan*, Controlling, 1 316-322.

⁸Monden, Y. and Lee, J., 1993. How a Japanese auto maker reduces costs, *Management Accounting*, 22-26.

costing process requires the cost-oriented coordination of all product-related organizational functions.”⁹In this paper, target costing is defined as a system of profit planning and cost management that is price-led, design-centered and cross functional.

Common to most definitions is a process founded on a competitive market environment; market prices driving cost (and investment) decisions; cost planning, management; and cross-functional team involvement, including the management accountant. The application of target costing in the telecommunication sector is highly beneficial as competition grew fiercer and profits weakened, because prices are then increasingly determined by market forces rather than by simply marking up the cost with a sufficient profit. It can also be beneficial to involve members of the value chain, such as suppliers and distributors. In that way, pressures stemming from the market can be passed on to extended telecoms to encourage their creativity and cost control.

III. TARGET COSTING IN THE TELECOMMUNICATIONS SECTOR

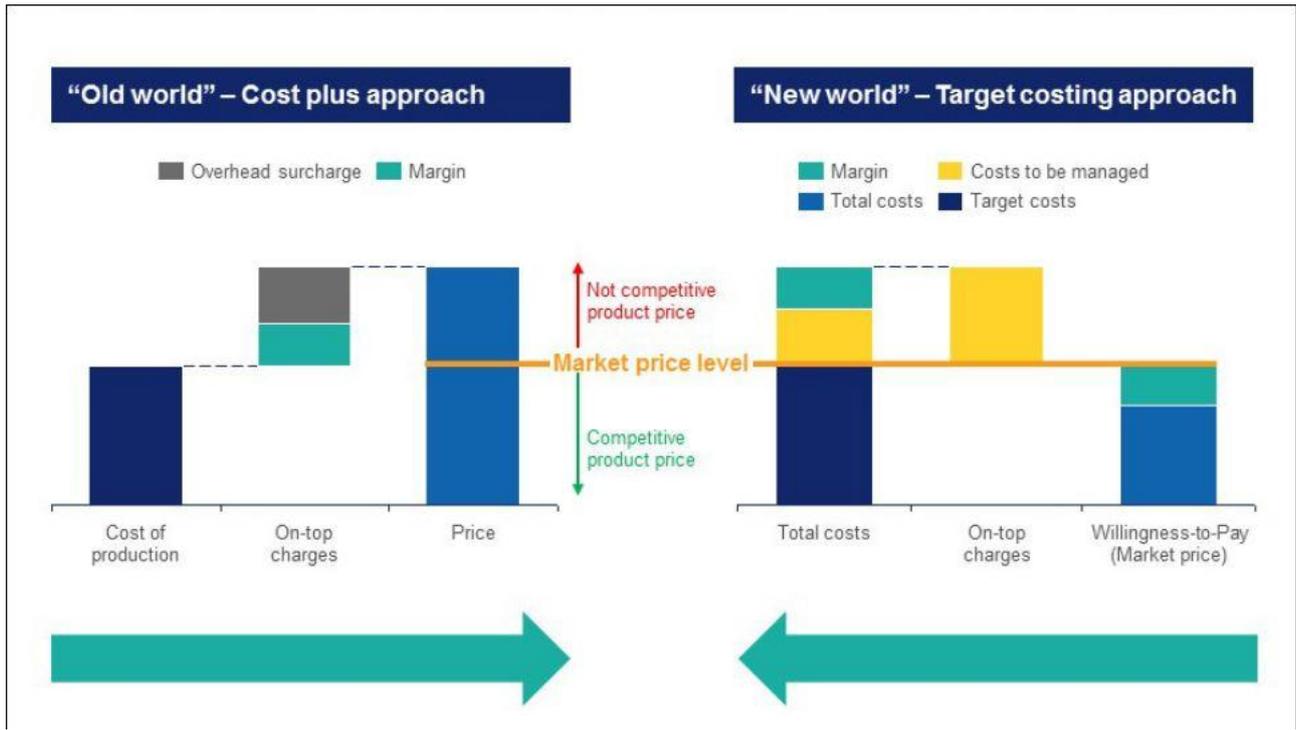
Target costing is a proactive cost planning, cost management, and cost reduction practice whereby costs are planned and managed out of a product and service early in the design and development cycle, rather than during the latter stages of product development. Target costing obviously applies to new telco products and services. It also applies to service modifications or succeeding generations of products.

As the first step, the telco company determines what the market is willing to pay for a service. Three main players are taken into consideration: customers, competitors, and a company’s senior management. The telecom operator must understand customer’s perceived value of a service as well as their attitude for purchasing services. The telco company must take into account competitors alternative and substitute services. This is because customers are shoppers and will shop around for the best price and value. The senior management must define and adjust strategies to meet the company’ objectives. The second step is determining target profit margin – profit margins must be to satisfy the expectations of both the company and its owners. Two approaches can be used to determine the desired profit margin: baseline experiences and capital budgeting using lifecycle analysis. The last step calculates the allowable service cost – the maximum allowable service cost is calculated as the net between the target selling price and the target profit margin. Many telco companies use target costing together with an activity-based-costing (ABC) system. Target costing requires a company to first determine what a customer will pay for a service and then work backwards to design service and production process that will generate a desired of profit. ABC provides data on the costs of the various activities needed to lunch the service. Knowing the costs of activities allows service and services process designers to be able to predict the effects of their designs on the service’s cost. Target costing essentially takes activity-based costs and uses them for strategic product decisions.¹⁰

⁹Horváth, P. 1993. Target Costing: State of the Art Report. Arlington, Texas: Computer Aided Manufacturing-International (CAM-I).

¹⁰Krstevski, D., and Mancheski, Gj. 2017: Costing Systems in the Telecommunications Industry, Economic Development, Journal of The Institute of Economics, Year.19, pp. 209-219.

Chart 1. Cost plus approach vs. target costing approach



Source: Detecon, December 2016 :Telcos do not plan their budgets efficiently. Available at <https://www.detecon.com/en/Publications/telcos-do-not-plan-their-budgets-efficiently>

When any telecommunication company is looking for grounded and realistic targets into its planning process, the target costing approach is the model concept. The focus on cost design is based solely on the end customer's willingness to pay for the subject of interest. Whether this customer is a consumer or an internal department is irrelevant; the idea that whatever is being planned must also be paid for is simple, so it is very easy to grasp and not likely to be challenged very much by the business unit representatives. Once everyone involved understands the principle of the customer's willingness to pay, it becomes much easier to develop ideas and approaches for the optimization of processes, the realization of savings in sourcing, or the scrapping of product features that are not required (column sections in yellow on the right-hand side of Figure 1). It is possible to create easy-to-use checklists for a company's core business portfolio items to make sure that unnecessary costs are avoided throughout the design process of a product or service. Furthermore, this approach can help identifying important trends. If the customer's willingness to pay for a whole set of similar services weakens, a provider's own cost structures must be challenged and re-evaluated. Taking action before rising cost pressures force hasty decisions to make drastic cuts and changes can help, especially as such decisions may save money in the short term while proving detrimental in the long run.

The target costing approach transforms all of the energy put into the planning process into customer-focused idea development. Departments display growing willingness to shed their defensive attitudes towards their budgets and cooperate closely with the finance department to realize the best possible outcome for the company. Furthermore, departments no longer benefit from "safeguarding budgets", but feel free to make resources available to other organizational units if savings are realized in the product/service design process as a whole. Management can use the forecast periods to redistribute any budgeted funds that are no longer required in the department to which they were originally allocated: transparency and flexibility take the place of mistrust and control.¹¹

IV. THE BARRIERS OF USING TARGET COSTING IN TELECOMMUNICATIONS INDUSTRY

Though the target costing system results in clear, substantial benefits in most cases, it has a few problems that one should be aware of and guard against. Target costing has a number of implementation challenges. The implementation barriers include: lack of understanding in telecommunications industry (in fact the term is not well

¹¹Detecon, December 2016: Telcos do not plan their budgets efficiently. Available at <https://www.detecon.com/en/Publications/telcos-do-not-plan-their-budgets-efficiently>.

known and much of the Japanese literature on "drifting cost" has not been translated);¹² cultural barriers against cross-functional cooperation; organizational barriers to team oriented work (difficult to achieve in a functional structure); and a perceived irrelevance about the effects; it is very difficult to determine a market-driven price for services provided; the major cost in the service industry is salaries. Bought-in materials are usually

low when compared to salaries. It is very difficult to reduce the cost of salaries. Still other barriers may include the organizations information systems and its lack of total system integration. To share cost reductions, supply chain partners must be able to share initial cost and production data.

1.1. Lack of Understanding or Relevance. While target costing has a straight forward logic, the consequences in practice are more difficult, particularly when the culture has previously embraced a cost-plus approach to pricing. The cost-plus approach is frequently quicker and does not include an iterative, inclusive approach to reducing the gap between current costs and target cost as in target costing. The cost-plus approach also does not have a solid market orientation that is a prerequisite for target costing. The term too is seen as limited to the accounting domain and traditionally accountants have not been used to implement service changes, even though they have access to the cost data. In addition to costs, telecoms must understand what consumers really want and are willing to pay for. In the traditional approach to product development and cost-plus pricing, the result is an array of over engineered products that do not meet the customer's needs and are incorrectly priced.¹³

1.2. Reduction of mandatory cost and cross functional barriers. A large amount of mandatory cost cutting can result in finger-pointing in various parts of the company; especially if employees in one area feel they are being called on to provide a disproportionately large part of the savings. For example, the technical engineering staff will not be happy if it is required to completely alter the information technical support layout in order to generate cost savings, while the purchase staff is not required to make any cost reductions through supplier negotiations. Avoiding this problem requires strong interpersonal and negotiation skills on the part of the management accountant. The logic of target costing is easy to understand, yet a number of telecoms continue to use the prevailing cost-plus approach. Employee will learn faster and better understand costs and the organization as a whole will adopt target costing as information flows faster and with a greater frequency of reporting. The ability for all entities to fully participate in cost management activities can lead to the development of valuable knowledge. ¹⁴ Moreover, the process takes an extensive degree of time and commitment. Target costing, implemented correctly, will engage all the key functions in the telecommunication company. They further assert the cross-functional teams formed between purchasing and supplier organizations can help reduce supply chain costs. When using target costing within the supply chain, the importance of trust and cooperation is crucial. Another major challenge for the management accountant is to get real "buy-in" from the other functions of the business involved in product planning, design, development, procurement, process engineering, production, distribution, and customer support. They, too, must be made aware of the market and competitive forces affecting prices, and their impact on cost management. They must actually experience a target costing process, in order that they understand and appreciate how it works and can benefit a firm.

1.3. Management accounting challenges vs. MIS and accounting cost data limitations. Management accountants have a significant role in ensuring that the long-range financial and other objectives of the firm are realized. They must use the most powerful tools at their disposal. In a competitive business environment, such as telecommunication market, where prices are set by market and competitive pressures, or when management decides to price aggressively to achieve market share, target costing is such a tool. Inasmuch as target costing represents a fundamentally different approach to cost management, a number of significant challenges face the management accountant who is thinking about encouraging the implementation of target costing. Management information system is one of the biggest challenges. Mainly, information systems are evolving, but too slowly, from a traditional view of internal cost accounting measuring cost centers in management accounting periods. They must move faster to a market-driven system starting with the customer. Choe examined the organizational learning effects of information provided by management accounting information systems using advanced technology. The study found target costing systems and the quick reporting of information facilitated learning. In fact, the study further suggests under a high level of advanced technology, a target costing system must be introduced and information should be provided frequently and quickly. This information or

¹²Nicolini, D., Tomkins, C, Holti, R., Oldman, A. & Smalley, M, 2000. Can target costing and whole life costing be applied in the construction industry? Evidence from two case studies, *British Journal of Management*, 11, 303-324.

¹³Butscher, S. A. & Laker, M. 2000. Market-driven product development. *Marketing Management*, 48-53.

¹⁴Zsdisin, G, A, Ellram, L, M., & Ogden, J. A, 2003. The relationship between purchasing and supply management's perceived value and participation in strategic supplier cost management activities. *Journal of Business Logistics*, 24(2), 129-154.

organizational learning support system is a requirement for improvement and encompasses accounting information, planning, control, production, and meeting budgets, forecasts, and performance standards. Thus the information is a facilitator of corporate learning. Choe further suggests management will require a different accounting information system than those in more traditional environments used to control mass production. The new information must be adjusted to satisfy diverse information needs of managers and include non-financial measures as well.¹⁵

V. Conclusion

The objective of target costing is to assure that a telco achieves its service-specific and firm-wide profit objectives in a very competitive telecommunication market environment. It is becoming increasingly essential as more telecommunication providers are realizing that they cannot increase prices to solve cost and profit squeeze problems. Target costing requires a major change in mindset for many operators, executives, and accountants accustomed to operating for so many years in a business environment more accepting of regular price increases. Those industries most clearly affected by increasing global, competitive pressures could be expected to respond most quickly to the approach and benefits of target costing. Those seemingly less immediately affected may fail to react as quickly, and, as a result, may fail to achieve the benefits of earlier cost planning and stricter cost management, and their impact on profitability and market position. If they want to be ready to face the current and imminent changes in the industry, telcos will have to become more efficient in their planning process. Mainly, a change in mindset to favor customer-focused costing enables competitive services in a business environment that is perhaps of the greatest relevance for the digitalization now going on. Furthermore, moving from a cost center-driven culture towards a more entrepreneurial one by introducing demand-based charging allows the implementation of a target costing concept that will ultimately lead to more customer-centric products at a price matching the willingness to pay. Achieving this requires a transformation of the finance department from a constant business challenger into an internal consultant who can give guidance and advice on how to reach the target costing base required to meet willingness to pay expectations rather than distributing top-down targets. Ultimately, planning accuracy will increase due to the elimination of "bargaining chip buffers" in bottom-up planning.

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¹⁵Choe, J. M. 2002. The organizational learning effects of management accounting information under advanced manufacturing technology, *European Journal of Information Systems*, 11(2), 142-150.