TARGET COSTING BASED ON THE ACTIVITY-BASED COSTING METHOD AND A MODEL PROPOSAL

Selim Yuksel Pazarceviren, Prof. Dr.
Duygu Celayir, Research Assistant
Istanbul Commerce University

Abstract

Globalization arisen with the fast transformations in economy and technology, is also accompanied consequential changes in the competition environment of the businesses. Global competititon environment obligated businesses to reach three important objectives at the same time and at the highest level. Businesses have had to design and produce high-quality, low-cost products to meet customer requests and expectations as soon as possible. In this environment, conventional cost methods and cost-plus pricing strategies have became insufficient, therefore new cost management methods have been developed.

One of these methods is **Target Costing** method. Target Costing is a method that aims to manage the costs before they realized and to realize target profit at a level of realizable cost without making any concessions on quality. With regard to realizing these objectives, accuracy of the managerial decisions have to be increased. However, conventional cost methods do not secure the accuracy of cost information and they are not beneficial for the prediction and decision mechanisms of the executives. **Activity-Based Costing** method that is based on activity-based information methods, is appeared in the 1980s. The method has eliminated insufficiencies of conventional methods due to its ability to provide more accurate cost information. Activity-based approach that is started with the activity-based costing also has been realized in budgeting. Thereby, functional-based conventional costing has gave way to activity-based costing. Both the activity-based costing and activity-based budgeting have been became tools that can be utilised effectively for determining and estimating target costs.

Our study states that target costing method can be realized in conjuction with the Activity-based costing method for ensuring the desired efficiency of the target costing method. Furthermore, a target cost model based upon activity-based costing and activity-based budgeting, has been developed.

Keywords: Target Costing, activity-based costing, activity-based budgeting

Introduction

Globalization, technological advancements, increasingly shorter product life cycle, new competitors breaking into market, the growing and changing customer needs have greatly complicated today's business world. Businesses have started to change their manufacturing systems by means of using modern manufacturing technologies. Concordantly, present costing methods that are insufficient to provide efficient cost information in these conditions of competition, has been called into question. Cost information and cost management have became an essential fact for businesses that want to be more successful in the risen heat of the competition of today's economic climate. (Koşan and Geçgin, 2011:53) Today, new methods that consist of advanced and elaborate technical studies and approach to cost reduction factors individually, started to find their way into operations.

One of these methods emerged in this process is Target Costing (TC). TC that is described as an important tool of strategic cost management, emerged to ensure being focused on the market related to product development and pricing, and emerged as a strategic cost reduction and management method that is mostly used to advance product life cycle and used in product designing processes. Today, target costing that is used widely with the purpose of performance-based cost planning and controlling, aims to improve competitiveness of the businesses by means of ensuring their management of activities regarding the products they manufactured to be market oriented and cost-oriented. (Alagöz and Ceran, 2006: 62). It has become a modern approach that focuses on the planning and designing phases of the costing process, and aims to ensure the product is manufactured in accordance with the target cost acquired by substracting the target profit from the determined target sale price. (Öndeş et al., 2010: 248)

In parallel with all of these developments, production environments has also changed; the rate of machinery utilization in production has increased, the share of direct labor costs within production costs have decreased and the share of production overheads have increased. Charging production overheads to products within the scope of conventional costing has started to cause problems. Therefore, cost informations provided by conventional costing methods have started to lose their accuracy. In advanced industrial environments, accuracy of present costing methods have been discussed intensively (Şakrak, 1997:175) and as a result to searches for the subject, activity-based approaches have led the way in 1980s. The first of these approaches was Activity-based Costing method (ABC) that is developed to ensure the desired accuracy of the informations used in managerial decisions of the businesses, and to ensure the monitoring thus controlling of the costs as required.

ABC method that uses activities as base while indirect costs are being allocated, eliminated the miscalculations caused by conventional costing method which undercharges the cost to small-scale products and overcharges the cost to large-scale products. The method also emerged as a system that provides cost data to the management about the decisions they make regarding the products and as a method that charges costs to products in accordance with the amount of activities they required. Following this, ABC has also been realized into budgets, thus activity-based budgets have been developed. In this way, ABC's connection to operational control has been established.

Under the hypothesis that TC and ABC, which are approached within the scope of strategic cost methods, are mutually complementary; the purpose of this study is to create a model based on activity-based costing in the processes of determining target cost and realizing target costing.

Basic informations related to Target Costing (TC), the purpose of the method, the principles and the implementation process are explained initially in the study. Following this, basic informations regarding activity-based costing and activity-based budgeting are presented, and their correlation to target costing is mentioned. Proposal of target cost model based on activity-based costing is presented at the final section. Indirect cost allocation in accordance with the ABC is used as a base for proposing the model.

Basic information regarding target costing

Recent changes due to global competition of businesses and technological advancements, lead to innovations in the use of financial and non-financial informations, and the accounting became the most important tool of business management. (Gökçen, 2003:79)

Increases in costs especially after the industrial revolution, serious decreases in product prices on the other hand, prominent global competition critical subjects such as market, customer, quality, environment, have incapacitated conventional management and cost accounting methods. With this change, new approaches such as Total Quality

Management, Time-Based Management, Reengineering, Flexible Production Systems, Activity-based Costing have been developed; **target costing** is also emerged as a part of this process. (Can, 2004:5). In this method, operations are oriented with respect to customer, intensity on production design is highly risen and it extends to the whole life cycle of the product.

Conceptual Framework Regarding Target Costing

Starting point of the target costing is ***strategic management*** consistent with all business activities in an ever-changing, ever-growing competition environment. And strategic management can be realized by manufacturing products that are based upon customer requests and market-oriented. Target costing is a product development strategy that is concentrated on customer expectations and new opportunities in the market, and it is identified as management process of strategical profit and cost. (Yükçü, 1999: 923). Target cost management is regarded as an activity that aims to reduce the costs of the product during its whole life cycle and to satisfy customer requests such as rapidity, quality and reliability, with the way of examining all of the presented alternatives to reduce the cost of planning, research and development processes of a new product. (Can, 2004: 9).

Despite it's mentioned that the main idea of target costing and the first applications are emerged at Ford Motor in USA in early 1900s and it's implemented at Volkswagen in Germany in early 1930s, the first systematical operation and development is realized in *Japanese Toyota Company* in the mid-1960s. After that, it's partially used in other European countries, particularly in Germany and USA. (Koçsoy and Gürdal, 2008:77) It has found a wide operation area in Japan with 100% in *transportation equipments* industry, 88% in *electrical and electronics* industry, 83% in *machine manufacturing* industry and 67% in *metalware* industry. (Yılmaz and Baral, 2009: 3) Cost reducing in planning and designing stages is an important matter in Japan since the production is substantially assembly-based. Japanese cost accountants have to calculate 100% of product costs in marketing and designing stages. And this indicates how the target costing concept is developed. (Gagne and Discenza, 1993: 68)

Since it's a cost management that is emerged and developed in Japan, mostly Japanese authors examined the concept of target costing and Hiromoto, Sakurai and Monden contributed important studies related to the subject. (Alagöz et al., 2005: 47-48) ***Hiromoto*** described target costing as market-oriented and as basic function of the dynamic cost management. ***Sakurai and Monden*** described target costing as an effective cost management tool for reducing the product cost comprehensively with the help of other departments in the business.

According to Peter Horvarth and Werner Seidenschwarz; "target costing is a strategic cost management tool that transforms information related to product, market and resources to quantitave measures, on strategic basis." (Lorino, 1995: 82-83)

The fact that large portion of product cost appear in the designing phase indicates the most part of cost reduction operations will also be realized in the same phase. Therefore, instead of determining the cost after the product is designed, target cost has to be determined initially and following this, product design has to be made in accordance with this target. (Acar, 2005: 56) Since its a market-oriented cost method, target costing *starts with the customer*. As market conditions effects product prices that are going to be marketed successfully, the most important factor is the demand and needs of the customer. When the substance is inspected, target costing that is extended to the whole product life cycle, means market-oriented management of the information related to business strategies, and presents a formulated cost management approach.

Target costing aims to determine required cost to manufacture the product by subtracting the expected profit from the expected sale price which is determined with market information instead of costs, before the product is developed. From this aspect, target cost management uses "market price minus" principle instead of "cost plus" principle. (Cengiz,2010:7) Target cost of the product is formed after the determination of the factors which are determined before the product design, such as target sale price, target profit and target sales volume.

Target Cost, Target Sale price and Target Profit

Target costing method is developed as a result to the comprehension of two important facts related to the market and the costs. (Coşkun, 2003: 26). The first of these facts is that price is determined by the market. Businesses always thought that they are in control of the prices. Yet today, they realized they have less control over them than they have thought. The second of the facts is that the big portion of a product's cost is determined in designing stage. Because of that, instead of designing the product and trying to figure how much does it cost afterwards, target cost has to be determined initially and product has to be designed in accordance with this target afterwards. (Öndeş et al., 2010: 249)

Target cost that underlies target costing method, is a market oriented cost which is calculated in accordance with the sale price used to achieve target market share. (www.suleymanyukcu.com) In other words, target cost differs from "conventional cost plus" approach and instead of being a function of costs, it is a function of the sale price and the desired profit. (Ertaş, 1998:183) When calculating target costs, target sale price and desired target profit margin, which are required for market share, have to be determined initially.

Target sale price is a sale price based upon the value assigned by the consumer perception towards the product. When determining target sale price, rival product prices, desire and ability to pay of target group have to be taken into consideration. **Target profit margin** is a profit margin determined by long-run profit analysis. Herein, target cost is calculated by the balance between sale price and profit margin. (Bahşi and Can, 2001:51) Business determines target price that customer is available to pay and after that backs from that point to determine the product cost which provides a satisfactory profit margin.

TARGET COST = TARGET PRICE – TARGET PROFIT

Target costing approach has a simple substance: (Şakrak and Hacırüstemoğlu, 2002:118)

- ✓ Sale prices of the future products are determined in target market.
- ✓ Profit margin which is aimed to be realized is subtracted from said sale price.
- ✓ Remaining value represents the level of target cost that the product has to be manufactured in.

Another important matter is that the success of TC management depends on support and collaboration of other methods when it is realized. Particularly, cost reduction method called value engineering has become crucial in this aspect. Value engineering is a method used to find ways to product cost reduction, by making no concessions to product features and quality expected by the customer. (Erol, 2002:83).

Basic Principles of Target Costing Method

Conceptual basis of TC process consists of six basic principles. Said principles represents an extensive approach in the scope of cost management and they also present an approach totally different from the conventional approach to profit planning. (Swenson et al., 2003: 12)

- ✓ Costing in accordance with the price,
- ✓ Concentrating on customer,
- ✓ Concentrating on product design,

- ✓ Extensive involvement,
- ✓ Cost reduction during whole product life cycle,
- ✓ Paying attention to value chain.

"Determining competitive market price has to be mentioned initially in the target costing method. Target cost is calculated by subtracting expected profit margin of the business from the said price. While it can be varied based upon the market and customer conditions, **price** is under the control of the target profit, the general structure of the industry and the financial conditions of the business.

The feature of price-oriented costing can be divided into two sub-principles; (Aksoylu and Dursun, 2001:363)

- ✓ Market prices determine the planning of the product and the profit. These plans have to be reviewed frequently to ensure assigning resources to products that have sufficient and secure profit margin.
- ✓ Target costing method is supported with the analyses and information of active competitiion environment. Understanding how market prices are determined has importance to beon the alert for the difficulties and risks of the competition environment.

There are many factors that have to be taken into consideration in the target costing process. One of them is the needs and thoughts of the customer. (Kutay and Akkaya, 2000:3) Target costing is market-oriented thus customer thoughts have great importance in this process and they have to be taken into consideration by the business all the time. Consumers would not pay for the features they dont value. Because of that, decreasing and elimination of the features that do not offer value to the consumer but charge cost to the product, are required to be taken in the consideration in the product designing process.

Another important factor is **product design**. Target costing method is based on the principle of managing the costs before they emerge. Approximately 80-85% of product costs are determined by the decisions that have been made during the designing stage. For this reason, designing stage is crucial in the process of target costing. (Hacırüstemoğlu and Şakrak, 2002: 121-122) Design and manufacturing engineering, production, marketing, purchasing, cost accounting and other teams that consist of supportive services, have been made use of while applying the TC method. In addition to that, individuals and teams outside of the business such as sellers, distributors and consumers, join the team. Every unit in this team have to work towards to achieve their common goal, target costing, and they have to do their part on time and at their best level. TC process aims to reduce the costs to the minimum during the whole life cycle of the product. For this purpose, applying the method more effectively by using it from beginning to end of the product process can be mentioned. TC operations is a work that extends on the whole life cycle of the product, and interfunctional in the business, and based on value chain perspective which covers the all aspects related to the business. (Bahşi and Can, 2001:55). TC includes all members of value chain such as suppliers, sellers, distributors, service providers and consumers, in the process of target costing. In this way, target costing expands the effort of cost reduction throughout value chain, by creating a long-term collaborative link between business and other members of the value chain, based on their common interest.

Target Costing Process

Target costing process is accepted as an interactive process. Most of the process activities actualize concurrently or correspondingly.

Target costing process has to be examined at 3 levels.

-At market level,

-At product level

-At unit level

Target costing discipline starts with the adjustments in the market and it requires the gathering of the information related to customer drives and the price they are available to pay. (Cooper - Slagmulder, 1999: 24) As conventional inside-out (business to market) approach is considered, product development activities were remote to market requirements and consequently products that are sufficiently designed and effectively labeled, were produced. However, with an out-inside (market to business) approach, insted of developing the products in a technologically possible way, they are being developed in accordance with the market requirements and according to the maximum price acceptable by the market. (Butscher and Laker, 2000:49) At this point, market analyses help to locate the place of the new products in the market, also they take a crucial role to form the cost portion of the target costing at market level by determining acceptable costs.

Target costing is used to relay these acceptable costs and the competitive cost pressure the business encountered to product designers. Product designers have to ensure that the products are in appropriate life cycle when they are manufactured. Target costing at product level, disciplines the costs and concentrates on the product designer creativity related to their success on the cost portion of this purpose. After target costing is determined at product level, it is divided to components at unit level, thus cost pressure the business encountered is relayed to the suppliers. Thereby, suppliers start to look for a way to design and produce the units the business provided from the outside. In this way, target costing at unit level helps to discipline the suppliers and make them concentrate on their creativity which is going to be beneficial to the business. (Acar, 2005: 44-45)

Activity-based costing and activity-based budgeting

In today's production environment, share of general production costs that are within the product cost independent from the activity volume and mostly consisted of invariable indirect costs, is reaching considerable amounts. That situation leads to reaching misinformation related to the product costs incase of using value-based allocation keys while assigning indirect costs to the products. On the other hand, product costs have to be improved consistently. This is only possible with the elimination of the activities that do not add value in the production process and with the improvement on the activity performances. (Parlakkaya:229-230) All these developments have directed the businesses to new methods which can provide more accurate cost information. In this study, activity-based costing and activity-based budgeting that emerges with the operation of activity-based costing in business budgets, are going to be examined.

These activity-based methods will make themselves functional by providing more accurate cost information for dynamizing the target costing method that underlies this study.

Activity-based Costing – Conceptual Framework

In recent years, failure of the conventional costing methods on monitoring the activities during the processes of service and production thus providing accurate data related to product and service costs, has been the starting point to the development of the activity-based costing. (Özcan et al., 2003). Today, ABC has become an effective management tool with the information it provided and as a result of their use in many managerial decisions such as pricing, enhancing the profit, product diversification, cost reducing, quality control and management, product development and designing. (Karaca, 2008:11).

ABC method aims to build an information infrastructure which enables to form a well-balanced relation between indirect costs and the cost units that the costs will be assigned on. ABC is a method that assigns resource costs to activities with the basis of the resource usage of the business activities; and it is also a method that assigns activity costs to cost objects

with the basis of the activities that the cost objects required. (Bengü 2005:188). Also the method is used for ensuring the managers to make the correct decisions regarding the product diversification and competition strategies, by directly linking general production costs to cost units such as processes, services, products or customers. (Cooper 1988:46).

The most important assumption in the ABC is that the resources of the business is consumed by the activities after the costs are determined and the activities are consumed by the manufactured products or services. (Gupta and Galloways, 2003: 132.) Objective of ABC method is to reduce wrong decisions by providing accurate cost information. In this method, planned, controlled and economic general production cost allocation data is acquired with reference to the assumption that the products consumes activities and activities consume the resources. For achieving the said objectives, in ABC operations, a cost pool is created for every activity, and all of the indirect costs pooled in it, and a cost allocation key for every cost pool is determined. (Cooper, 1988: 45). The crucial part is calculating the product costs after the calculation of activity costs. (Erdoğan, 1995: p.89).

Separation of Conventional Costing and Activity-based Costing

Due to changes in production environment, businesses now need cost information more than ever. However, calculation methods based on conventional cost accounting fail to satisfy the business needs related to this subject. (Bruns, 1999: 15). And consequently, a method (ABC) that provides more accurate calculations of product and service costs and profitability, and a better guide to managers for taking their strategic decisions, has been developed. (Cooper and Kaplan, 1991: 130).

Conventional costing method regards production volume as the only factor that effects the resources. But ABC states that there is too many factors regarding the resource use and the production volume is only one of them. Conventional costing calculates product cost by using only one cost allocation key while ABC is using different cost allocation keys for every cost pool when determining the product costs. (Karcıoğlu, 2000:156).

Substantially, the most important difference between ABC method and conventional costing method appears at ***resource and activity costs*** which are calculated in standard product cost. *In ABC method, not only production activity costs are covered as it is done in conventional methods, instead all of the business activities are covered in the standard cost of the product.* (Pazarçeviren, 2000:98). In conventional cost accounting, only the production costs are included in the product costs. R&D, Sales, Distribution, Marketing, General Administrative Expenses are recognized as running expenses and they are not charged to the products. Still, too many running expenses demonstrates features to include theirselves into product cost. ABC assigns any cost that the method determined it is originated from the product and either it is a running expense or a production cost, to the product cost. (Balcı, 2007, 52)

With ABC, activities that are causing a cost are determined effectively, and the cost is allocated to individual products. **Basic principle of ABC is costing the activities instead of products.** Costs are allocated in accordance with the activity requirements of the individual products. Allocation principles –cost drivers- are digitizing the activities. (Cengiz, 2010:163) The success of ABC widely depends on the estimation accuracy of activity costs. Therefore, ABC is prefered by the companies instead of conventional, simple, volume-based product costing methods. (Lockamy and Smith, 2000).

Importance of Activity-based Costing

For calculating the total cost of the manufactured products in ABC system, it is required to know the activity costs, how much time product has stayed in this activity field, how many times the product entered this activity field and it is required the calculation of

how much activity resource is consumed by the product. Activity-based costing method is a system that reveals profit structure of the manufactured products or services provided by a business, and is used in analyses which are designed to improve that information constantly. (Güzeldere, 2007:44-45)

Because the ABC is providing more accurate cost information, it eliminates the activities that do not add value, and it supports the production decisions and pricing policies of the managers by detecting the unprofitable products. (Cokins, 1999: 38) This method has two major objectives. These are;

a) Determining and providing elaborate information related to the activity consumption, cost and interest in production business as a whole.

b) Providing accurate cost information that is going to be used in managerial decisions. (Karcıoğlu, 2000:153).

The crucial part is eliminating the inaccuracies emerged from the use of volume-based keys which are used for charging costs to the products in conventional costing methods. (Rüstemoğlu and Şakrak, 2002: 30).

Activity-based costing provides support to potential profit measurment of the business, to make volume-profit analyses in the basis of sale objects and lines, and to develop sales and marketing policies. This approach also enables the creation of price simulations and pre-unit costs of the sale objects and therefore supports competitive price strategy implementations. (Pazarçeviren 2006:52-53).

Application of ABC Method

In ABC method, linking the products with the costs is based on two basic stages. At the initial stage, resources such as energy, placing, unit stock keeping are divided in specific parts and every activity is assigned to the cost pool of its part. At the second stage, consumed resources are measured and these are charged to the products from the related cost pools. At this stage, used cost drivers reflects the factors that direct the product volume-based or non-based cost varieties. These keys are used to charge the cost at the product level or at other levels. These levels represents varied activity levels where the costs are also varied. (Şakrak, 1997: 185) Resource costs are allocated to the activities that are determined by **activity analyses** which are realized at the first stage of the installation. The accumulation in the activity cost pool is allocated to cost objects (product, service, customer etc.) determined by the business management and allocated at the rate in accordance with the consumed activity factor. Designing of the ABC method usually consist 5 steps even though it varies from business to business. These steps are; (Öker, 2003:37)

1- Identifying activities
2- Classifying activities
3- Costing activities
4- Selecting accurate cost factors for allocating costs to the products
5- Charging activity costs to products

The first stage of ABC application is the detailed analysing of the activities being conducted in the business. Completing this stage accurately is crucial because achieving the objectives of activity-based approaches, particularly the costing depends on it. These activities are those make difference in the scope of costs such as purchasing raw material and consumables, production planning, quality control, material movements, machine set up, product development, R&D, after sales support. (Öker, 2003: 37).

If the activities that are identified by the inspectional and statistical studies presents common features, path of classifying these activities or creating departments is going to be taken, because presenting too many activities will make the application of the method more difficult. Two points have to be taken into consideration while classifying the activities. The

first, activities that are going to be pooled have to be in the consumption for a common cost object. (Öker, 2003:39) The second point regarding the classifying the activities is that if the activities are using the same cost factor or not.

The stage after the identifying and classifying of the activities is determination of the activity costs. Ledger accounts are good data sources for ABC method designers. In a sense, entries in these ledgers sum all of the important financial data of the business. (Gündüz, 1997:131). Two methods are available when allocating costs to departments (activity costing). Resource costs can be allocated directly or with the cost drives to the departments. (Alkan, 2005: 47). There are two sorts of cost drivers. These are; resource cost driver and activity cost driver.

Cost driver reflects the cause and effect relation between an activity and a cost pool. Ultimately, resource cost driver (1st stage cost driver) is a mechanism to allocate the resources to departments (cost pools inside the departments). (Erdoğan, 1995: 72-73) The second stage cost drivers (activity cost driver) cover the charging of the costs from departments to the products. After the cost of resources consumpted by activities in every department is monitored for activity cost pools, the second stage charging principles and cost drivers can be determined. (Erdoğan, 1995: 73)

The last stage of the ABC method is the charging activity costs to outputs. Here, "Output" concept represents cost objects such as manufactured products, services, projects etc. which are the purpose of the business. At the stage of charging the costs to the cost objects, after the appropriate cost drivers assigned to departments; the costs which are pooled in the activites, are allocated to product groups in accordance with the activity consumption of every cost object. (Öker, 2003:51) Activity-based budgeting is developed since the businesses that apply ABC method can not use conventional budgeting while planning the profits. Activity-costing model that is basically developed to allocate indirect costs accurately and therefore enables the gathering of more accurate information, is successfully implemented to the budgeting method.

Activity-based Budgeting

Activity-based budgeting (ABB) can be described generally as the budgeting of cost and amount of the resources required for the activites and the activities that has to be realized to achieve the output which is planned for the next operating cycle. (Özer, 2001, 81) ABB is a method ***based on activity management insted of resource management***. This new budgeting method has made a business enable to concentrate on which activities it realized, cost amount of the realized activities, realized physical values, performance level of the realized work and cycle time of the activity. (Balcı 2007, 3)

ABB uses continuous development as basis and aims to establish a dynamic relation between final outputs and activities via use rate between activities and resources. In this way, controlling the expenses with the resource and activity usage approach, is aimed. In the process, the kind of activities required are determined by analysing the manufactured products or services, and budgeting of these resources that are required for these activities, is realized. (Karaca and Yıldız, 2010)

ABB is the planning and control process of the expected activities in the oganization. ABB concentrates on activities and correlates **cost, time and quality** which are strategic objectives of the organization. (Cecily, 1999:288) ABB is emerged after the expansion of activity-based costing towards activity-based management. ABB is able to easily establish the cause and effect relation between activities, products or services.

Purpose of the ABB is achieving the strategic goal by creating a link between operational and financial transactions and by basing it on work load estimations; and setting an accurate plan and a budget by the combination of the planning and the budgetting with

activity-based methods, that are reflecting financial and non-financial requirements for realizing the transformations which are planned to improve present performance. (Kaygusuz, 2002: 5; Özer, 2001: 81).

An effective and accurate target costing process requires an activity-based costing/budgeting method. ABC and ABB which can be identified as an extension to activity based costing, are going to provide key cost data that is essential to achieve the goal of target costing.

Relation Between Target Costing and Activity-based Costing

ABC is underlined widely in the literature as a supportive tool for target costing. (Cengiz, 2010: 167-168). Lee (Lee, 1994: 70) stated that target costing is compatible with ABC, and target costing provides cost information required for the realization of target costing. Koons (Koons F. J., 1994:70) underlined the fact that the strategic plans in target costing have to be on the basis of the identification, measurment and controlling of the exact sources of the costs. He also underlines that the best way to realize this is setting the strategic plans on the basis of target costs which are calculated with activity-based costing and budgeting. In this way, the company will notbe subjected to limited measurements and cost allocations in conventional approach based on a single parameter such as labor force, and the company will have an elaborate cost information instead. (Koons, 1994: 70).

In the TC process, ***ABC*** is a method that provides very beneficial key cost information and assist to target costing to be successful. While TC ensures market-oriented goals, ABC presents the improvement processes by making the costs more transparent. (Horvath et al., 1998: 23-24) In the flexible production system that cope with the market demands in a short time, production expenses of the complex products are high. And this means more indirect costs are going to be appeared. For this reason, activity-based costing method which is a tool of general production cost management, is being utilized. (Ertaş, 1998: 190)

Target costing is related to the activity-based costing on three points. (Horvath,1993, s.12-13) The first one is determining the estimated cost. Activities that are used on the indirect areas depending on the product, can be analized by original activity costs. The second, activity-based costing can determine the cost drive of the product planning and the design offer. Subjects such as product diversification, usage of standard parts, chain of distribution, purchasing and production, has to be compatible with market requirements. While target costing provides information for market requirements and cost goals, activity-based costing can present cost structures of design alternatives. The third, activity-based costing can be used as a tool for achieving target cost. Activity-based costing which identifies the activities required to realize specific product functions and related to this, determines the cost allocation keys, assists to determine the optimal value area by transferring activity costs to product functions. In addition to that, cost allocation key information can present the conditions of the activities required to be reorganized for cost reduction operation.

ABC shall be more beneficial when it is applied with cost managament tools that have strong customer-orientation such as TC. Because, ABC is a cost effectiveness tool that concentrates more on intrinsic subjects without creating an automated link with customers. If the executives focus only on intrinsic activities and effectiveness, they may forget factors such as time and quality which are important for the customers. (Arzova, 2002:83).

ABC method applied with the target costing, has enabled designers to reach the information related to every activity and operation by enabling designers to allocate direct-indirect costs. Knowing the costs of activities and operations enables designers to create product designs at the desired cost without sacrificing quality and functionality.(Öker, 2003: 77)

In target costing, it is aimed that sale prices are assigned after the product features are determined and product costs are calculated in accordance with the assigned cost. Intersection point of target costing and ABC regarding their relation is at determining the target price accurately by accurately calculating the costs. By this way, lower or higher price-fixing can be prevented. (Özer, 2004:133).

Beside this, target costs are used to determine the limits of the product design decisions. Data acquired from the ABC is used by designers for better understanding of general production costs, cost drives and factors that form the cost; and it is used to develop more accurate cost estimations in product design. (Aksoylu, 2001:138). By this way, particularly in the early stages of the product design process and in accordance with the TC method, ABC enables the inclusion of common cost areas into the processes of planning and allocation of the target costs. (Can, 2002: 174).

Model proposition for determining target cost,based on activity-based costing and budgeting

An effective and accurate TC process requires an ABC model. Thus, value received from the new model will be more. Thomson and Gurowka (Thomson J., Gurowka, 2005: 30) stated that the main purpose of target costing is transforming admissible target cost to achievable target cost by cost analyses and estimations, value engineering and continuous development; and also stated that ABC will assist to this purpose. As literature widely presented, ABC application is a requirement for target costing. (Cengiz, 2010: 167-168)

Starting from this point of view, a model is developed in the study for determining the target cost, and the information needed for target cost elements are acquired from activity-based budgets. As it is known, activity-based budgets are based on activity-based costing. The high point of the developed model is that the information which is going to be used in the determination of the target cost is determined on the basis of ABC.

In TC model, ABC application is going to provide more accurate data. Furthermore, it will enable businesses to compare the product features with the cost to develop these features by directly determining the resources and costs of the production processes; and it is going to enable businesses to monitor operation times and quality costs in every stage of the production process. (Cengiz, 2010: 167-168)

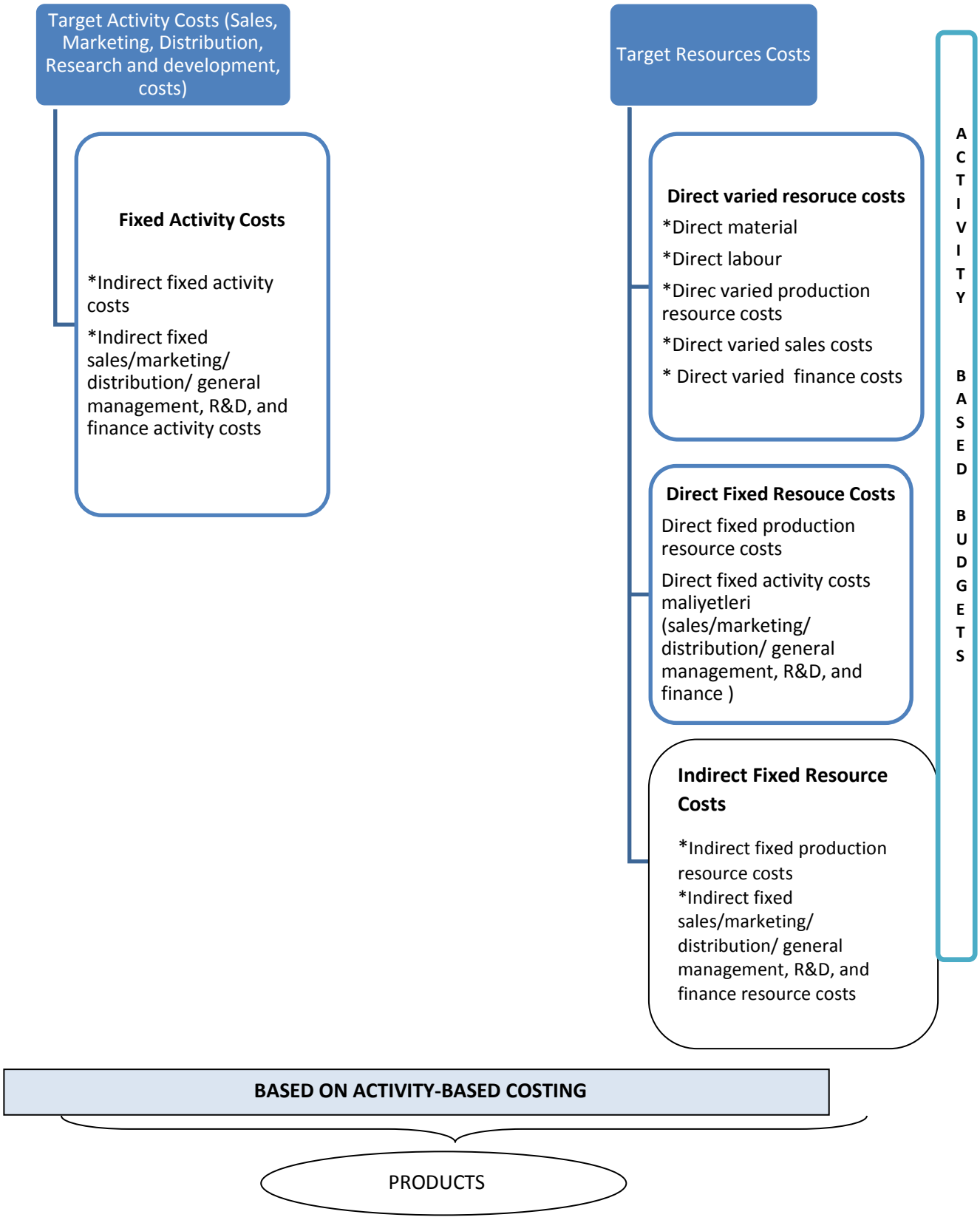
In ABC method, not only production costs are covered as it is done in the conventional methods, instead all of the business activity costs are covered in the cost of the product. Production costs are divided in two as direct and indirect production costs. Direct costs consist of the costs of direct labor and the direct material which is directly linked to the product. As for indirect costs, they are indirectly charged to the products since they have no direct link with the product. As a matter of fact, use of ABC method becomes prominent when charging the indirect costs to the products. Additionally, more accurate allocation of variable and fixed costs can be made since ABC considers all the business activities when allocating the costs, in other words, ABC also covers the costs of R&D, sales, marketing, distribution and general management.

In a business, resources contain the following: (Erdoğan, 1995:40);

- Direct material
- Direct labor
- Indirect costs related to the production
- Non-production costs (marketing, sales, distribution, R&D...)

At this place, the most important components are indirect costs. With the application of ABC method, product costs can be calculated more accurately after the indirect costs are transformed to production costs. Cost behavior has to be monitored closely and allocated when allocating the costs.

Figure :1


Target Activity Costs (Sales, Marketing, Distribution, Research and development, costs)
Fixed Activity Costs
*Indirect fixed activity costs
*Indirect fixed sales/marketing/ distribution/ general management, R&D, and finance activity costs
Target Resources Costs
Direct varied resoruce costs
*Direct material
*Direct labour
*Direc varied production resource costs
*Direct varied sales costs
* Direct varied finance costs
Direct Fixed Resouce Costs
Direct fixed production resource costs
Direct fixed activity costs maliyetleri (sales/marketing/ distribution/ general management, R&D, and finance)
Indirect Fixed Resource Costs
*Indirect fixed production resource costs
*Indirect fixed sales/marketing/ distribution/ general management, R&D, and finance resource costs
ACTIVITY BASED BUDGETS
BASED ON ACTIVITY-BASED COSTING
PRODUCTS

Activity based costing has satisfied a need at this point and enabled more accurate determination of the costs. As seen in the **Figure 1,** ABC is used to acquire the data for determining or dentifying the target cost of the product. Costs are allocated at their usage ratio to the product cost from the production costs and from the non-production supportive activity costs such as marketing, sales, distribution, finance, general management and R&D. While this is realized, also the varied and the fixed allocation to the costs are realized and therefore acquiring a more sytematic cost information is enabled. Because, allocating all costs **in accordance with the cost behavior (fixed, varied)** is crucial for determining how varied factors are effecting the cost. Effectiveness is realized by charging these costs to products with the assistance of varied cost drivers.

It has to be stated that; resources are basically divided in two according to their behavior in front of the operation volume. The first one of them is flexible/varied resources and the second is fixed resources. Flexible resources are provided from external suppliers for short-term demands. Material, energy, casual employees, piece workers, overtimes are examples for flexible resources. The cost of acquiring these resources are equal to the cost of using these resources. Cost of these resources is identified as varied cost since it is going to show variations depending on the use of these resources. Expenses for dependent resources, in other words fixed resources, is identified as fixed cost since activities do not depend on the use of these resources. Feature of the fixed resources is they are provided before the activity is started. (Karaca, 2008:33). *This allocation is also elaborately realized with ABC.* Many production factor cost that is not charged directly to the products in conventional methods, are charged directly to the products in ABC method, based on standard resource consumption amounts determined with enginneering methods and calculations. Determining the production and activity costs, based on standart resource consumptions determined with objective measures, enables calculating accurate production and activity costs, and enables preventing the wastes during resource allocation and consumption. (Pazarçeviren, 2000:17)

ABC enables more accurate and precise calculations in situations such as indirect costs that are not directly charged to the product cost. Because, allocating indirect costs in volume-based methods is not easy. The most of these resources are being shared by many products, so, setting a system to monitor their consumption is not rational. The real costs of cost objects and activities that are emerged in organization processes, are determined due to the information **related** to activity costs provided by ABC.

Broader information related how target cost (as it's presented in **Figure 1**) is reached in cost allocation, is presented in **Table:1**.

Table 1: TARGET COSTING MODEL BASED ON ACTIVITY-BASED COSTING

PRODUCT COST ELEMENTS	**BASIC COST ACCOUNTS**	**DATA SOURCE**
DIRECT MATERIAL EXPENSES	PRODUCT DIRECT MATERIAL COST	STANDARD MATERIAL QUANTITY AND PRICE SETS OF THE PRODUCTS BASED ON PRODUCT TREE)
DIRECT LABOUR EXPENSES	PRODUCT DIRECT LABOR COST	DIRECT LABOR TIME AND PAY SETS OF THE PRODUCTS BASED ON DIRECT LABOR OPERATION LIST)
ENERGY EXPENSES (ELECTRICTY,STEAM)	PRODUCT DIRECT VARIED PRODUCTION RESOURCE COSTS	RESOURCE CONSUMPTION AMOUNT AND PRICE SETS OF THE PRODUCTS)
OTHER DIRECT VARIED EXPENSES	PRODUCT DIRECT VARIED PRODUCTION RESOURCE COSTS	RESOURCE CONSUMPTION AMOUNT AND SETS OF THE PRODUCTS)
(1)	***PRODUCT VARIED PRODUCTION COST***	
DIRECT FIXED PRODUCTION RESOURCE COSTS OF THE PRODUCTS IN DEPARTMENTS	BUDGETED DIRECT FIXED PRODUCTION RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
INDIRECT FIXED PRODUCTION RESOURCE COSTS OF THE PRODUCTS IN DEPARTMENTS	BUDGETED INDIRECT FIXED PRODUCTION RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
PRODUCT DEPARTMENTS BUDGETED ACTIVITY COSTS	*BUDGETED INDIRECT FIXED PRODUCTION ACTIVITY COSTS*	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
(2)	***PRODUCT FIXED PRODUCTION COST***	
(1+2) PRODUCT (FULL) PRODUCTION COST		
DIRECT VARIED SALES RESOURCE COSTS OF THE PRODUCTS IN SALES DISTRIBUTION MARKETING DEPARTMENTS	BUDGETED DIRECT VARIED SDM RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
DIRECT FIXED SDM RESOURCE COSTS OF THE PRODUCTS IN SDM DEPARTMENTS	BUDGETED DIRECT FIXED SDM RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
INDIRECT FIXED SDM RESOURCE COSTS OF THE PRODUCTS IN SDMF DEPARTMENTS	BUDGETED INDIRECT FIXED SDM RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
SDM DEPARTMENTS BUDGETED ACTIVITY COSTS	BUDGETED INDIRECT FIXED SDM ACTIVITY COSTS	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
	BUDGETED FIXED SALES DISTRIBUTION MARKETING COST	
DIRECT FIXED GM RESOURCE COST OF THE PRODUCTS IN GENERAL MANAGEMENT DEPARTMENTS	BUDGETED DIRECT FIXED GMA RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS

INDIRECT FIXED GM RESOURCE COSTS OF THE PRODUCTS IN GM DEPARTMENTS	PRODUCT BUDGETED INDIRECT FIXED GMA RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
GM DEPARTMENTS BUDGETED ACTIVITY COSTS	PRODUCTS BUDGETED INDIRECT FIXED GM ACTIVITY COSTS	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
	BUDGETED FIXED GM COST	
DIRECT VARIED FINANCE RESOURCE COSTS OF THE PRODUCTS IN FINANCE DEPARTMENTS	PRODUCT BUDGETED DIRECT VARIED FINANCE RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
DIRECT FIXED FINANCE RESOURCE COSTS OF THE PRODUCTS IN FINANCE DEPARTMENTS	PRODUCT BUDGETED DIRECT FIXED FINANCE RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
INDIRECT FIXED FINANCE RESOURCE COSTS OF THE PRODUCTS IN FINANCE DEPARTMENTS	PRODUCT BUDGETED INDIRECT FIXED FINANCE RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
FINANCE DEPARTMENTS BUDGETED ACTIVITY COSTS	PRODUCT BUDGETED INDIRECT FIXED FINANCE ACTIVITY COSTS	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
	PRODUCT BUDGETED FIXED FINANCE COST	
DIRECT FIXED R&D RESOURCE COSTS OF THE PRODUCTS IN R&D DEPARTMENTS	PRODUCT DIRECT FIXED R&D RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
INDIRECT FIXED R&D RESOURCE COSTS OF THE PRODUCTS IN R&D DEPARTMENTS	PRODUCT INDIRECT FIXED R&D RESOURCE COST	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
R&D DEPARTMENTS BUDGETED ACTIVITY COSTS	INDIRECT FIXED R&D ACTIVITY COSTS OF THE PRODUCTS	ACTIVITY COST BUDGET SYSTEM OF THE BUSINESS
	PRODUCT BUDGETED FIXED R&D COST	
	PRODUCT -(FULL) COMMERCIAL COST	

In the table, how the target cost or commercial target cost of the product is determined, is presented in detail by handling fixed and varied costs of production and other activities individually.

In the model, target cost of the product which is going to be produced is determined in 2 steps. In fact, what is going to be reached is the full/commercial cost of the product. For this purpose, these are required;

1- Calculating production (industrial) cost of the product

2- Calculating non-production costs of the product

Production (industrial) cost consists of direct material cost, direct labor cost and fixed and varied general production costs which are budgeted at ordinary capacity level. Full commercial cost is determined by adding budgeted varied and fixed sale, marketing, distribution and management expenses to full industrial cost. For determining target commercial cost of the product, allocating indirect costs to products with activity-based costing method will provide more accurate informations. ABC will follow a more systematic method on cost behaviors when allocating varied and fixed. In this method where ABC method is used for allocating indirect costs, target commercial cost of the product is determined by acquiring required cost data from activity-based budgets. Therefore, the most crucial part of target costing is that determining the target cost will be realized with more accurate informations. Also, operating ***full cost method*** in ABC is compatible with target costing.

ABC has a guiding function on reaching target costs by determining cost objects related to every process in indirect area, and ABC also enables cost management to be

compatible with the Market demands. Particularly in the early stages of product development stage and in accordance with the target costing method, ABC enables the inclusion of common cost areas into the processes of planning and allocation of the target costs. ABC enables the determination of cost objects in the common cost areas, and enables extensive monitoring of the costs caused by an activity or a process. (Can, 2002:174-175) It can be stated that the information required for the target costing is provided by activity-based costing method. After charging the indirect costs to products with activity-based costing, target costs are being determined, and information related to the required alterations to product parts and activities for achieving the target cost can be acquired. (Aksoylu, 2001:142). By this way, in product design phase, businesses will be able to reduce the future costs by designing products that use less parts but with same functions. (Karcıoğlu, 2000:191)

We can explain with the help of an example of the above model

In the example, the unit target cost is calculated over the years. As a basis for 5 years.T otal costs as well as target costs per unit can be seen over the years.Thus, we can reach the target cost with a more healthy way . Unit costs are calculated from the structure of the direct variable resource costs , and direct/ indirect fixed resource and activity costs. Also, Lİfe cycle costs are calculated separately because these costs do not show periodicity

The most important advantage of activity based costing method is calculated product target costs considering resource costs as well as activity costs.

Table:2

Direct Varied Resource Costs	**1.year TL/unit**	**2.year TL/un.**	**3.year TL/un.**	**4.year TL/un.**	**5.year TL/un.**	**Average**
Direct Material	0,7	0,8	0,9	1,02	1,04	0,9168
Direct Labour	0,82	0,8	0,76	0,72	0,7	0,7512
Direct Varied Production Resource Costs	0,5	0,52	0,54	0,6	0,62	0,5648
Direct Varied Finance Costs						
Direct Varied Sales Costs	0,4	0,42	0,46	0,48	0,54	0,4696
Total	2,42	2,54	2,66	2,82	2,9	2,7024

TL: Turkish Liras
Un: Unit
Table 3: The Determining
Average of Direct Varied Resource Costs

Direct Varied Resource Cost	**1.year**	**2.year**	**3.year**	**4.year**	**5.year**	**Total**
Direct Material	0,098	0,144	0,18	0,2244	0,2704	0,9168
Direct Labour	0,1148	0,144	0,152	0,1584	0,182	0,7512
Direct Varied production Resource Costs	0,07	0,0936	0,108	0,132	0,1612	0,5648
Direct Varied Finance Costs						
Direct Varied Sales Costs	0,056	0,0756	0,092	0,1056	0,1404	0,4696
Total	0,3388	0,4572	0,532	0,6204	0,754	2,7024
----------	----------	----------	----------	----------		
Budgeted Sales Amount	7.000	9.000	10.000	11.000	13.000	50.000

Table 2 shows that direct varied resource costs. Direct varied resource costs include direct material, direct labour, direct varied other production costs, direct varied sales costs and direct varied finance costs. Direct variable costs are loaded directly to the products as it is

known . In this table, unit direct varied resource costs are calculated over the years . Also, We calculated the average in this table. We consider budgeted sales for calculating the average.(Table 3)

Table 4: Fixed Costs

Direct Fixed Resource Costs	**Example**	**1 (tl/year)**	**2 (tl/year)**	**3 (tl/year)**	**4 (tl/year)**	**5 (tl/year)**	**Total**
Direct Fixed Production Resource Costs	Used machine amortization for only A product	24.000	24.000	24.000	24.000	24.000	120.000
Direct fixed Marketing Resource costs		40.000	42.000	43.000	44.000	46.000	215.000
Direct Fixed Sales Resource Costs	Sales manager	36.000	36.000	36.000	36.000	36.000	180.000
Direct Fixed Distribution Resource Costs							
Direct fixed finance Resource Costs							
Direct fixed general management resource cost							
TOTAL		100.000	102.000	103.000	104.000	106.000	515.000
Indirect Fixed Resource Costs							
Indirect Fixed Production Resource Costs		18.000	18.000	18.000	18.000	18.000	90.000
Indirect Fixed Marketing Resource Costs							
Indirect Fixed Sale Resource Costs							
Indirect Fixed Distribution Resource Costs							
Indirect Fixed Finance Resource Costs							
Indirect Fixed GM Resource Costs							
TOTAL		18.000	18.000	18.000	18.000	18.000	90.000
Indirect Fixed Activity Costs							
Indirect Fixed Production Activity Costs		17.000	18.000	20.000	21.000	22.000	98.000
Indirect Fixed Marketing Activity Costs							
Indirect Fixed sales Activity Costs		10.000	11.000	12.000	14.000	15.000	62.000
Indirect Fixed Distribution Activity Costs							
Indirect Fixed Finance Activity Costs		8.000	10.000	11.000	12.000	13.000	54.000
Indirect Fixed GM Activity Costs		11.000	13.000	14.000	15.000	17.000	70.000
TOTAL		36.000	41.000	45.000	48.000	52.000	222.000
Direct/Indirect Fixed Resource-Activity Costs – Total		154.000	161.000	166.000	170.000	176.000	827.000
Budgeted sales amount		7.000	9.000	10.000	11.000	13.000	50.000
Unit Direct/Indirect Fixed Resource-Activity Costs		22	17,88889	16,6	15,45455	13,53846	16,54

Table 4 lists fixed costs for 5 years . Fixed costs contain direct fixed resource costs, indirect fixed resource costs and indirect fixed activity costs. Sub- classification of these costs in detail to provide a new approach to the target cost .In this table, we calculate both total direct/indirect fixed resource – activity costs and unit costs.

Table 5:

Product life cycle costs		
	Example	Total (5 year)
Direct fixed R&D resource costs	Prorotip material product costs	15.000
Indirect fixed R&D resource costs	pattern costs for x and y products	10.000
Indirect fixed R&D activity costs	Design costs, engineering costs	30.000
TOTAL		55.000
Budgeted total sales		50.000
Unit life cycle costs		1,1 TL/un

R&D costs are product life cycle costs. These costs do not show periodic separation, Thus, they are calculated for product entire life.(Table:5)

Table 6: The calculation of unit target cost

	1st year	2nd year	3rd year	4th year	5th year	**Average**
Unit Direct Varied Resource Costs	2,42	2,54	2,66	2,82	2,9	2,7024
Unit Direct/Indirect Fixed Resource and Activity Costs Direkt /Endirekt Sabit Kaynak ve Faaliyet Mal.	22	17,8889	16,6	15,45455	16,53846	16,54
Unit life cycle costs	1,1	1,1	1,1	1,1	1,1	1,1
Unit target Costs (Total)	25,52	21,5289	20,36	19,37455	20,53846	20,3424

Unit target costs are calculated over the years in Table 6. the unit was the target cost . Also, these costs' average is calculated in this table. Thus, activity based costing has allowed the effective target cost calculation and target cost model.

Our model provides more accurate and transparent cost information than the conventional approach in determining product target cost. It helps management greatly to focus on the right resources in order to improve the performance of the whole system.

Conclusion

With the globalization, the conditions of competition have changed and the consumer awareness has risen. Now, the businesses are competitive as much as their ability to cope with providing new consumer demands and needs at the quality, price and time the consumer desires. These changes have led the development of new strategic approaches in the scope of cost and management accounting. And, one of these approaches is target costing.

With the target costing, future costs are planned and controlled before they emerge and this accompanies significant cost savings. Purpose of the method is to establish a production process that achieves the desired profit. In this way, the method is used in the new product development process for counterbalancing the profitability and the cost planning, with taking customer satisfaction into consideration.

However, operating target costing method with the information provided by conventional value-based costing method will decrease the benefits of the target costing method.

Because, with the transition to advanced production environmets that operates advanced production technologies, the production is enabled to be realized in a broad product range, thus the importance of the direct labor costs in the total cost are declined, on the other

hand indirect costs/general production costs are greatly increased in importance. In addition to this, conventional volume-based costing caused the reporting of inaccurate cost informations. Activity-based Costing method based on Activity-based information is developed to fill this deficiency.

ABC can be described as a cost and management approach that operates with the activity-based allocation of the indirect costs due to the fact that the products consumes the resources of the business based on the activity; and can be described as an approach that establishes a direct link between the product and indirect costs, without depending solely on product volume and at varied levels. ABC which is presented against conventional costing methods, is a modern cost allocation method that presents a new alternative to allocation of the general production costs.

In the study, activity-based costing method is used for determining the target cost in target costing model. It is clear that the method provides more accurate cost information paticularly about the allocation of the indirect costs. Activity-based costing forms a highly compatible model with target costing. While the area of target costing expands to include customer, distribution, supplier relationship; on the other hand, the informatin required to properly manage these relationships is going to be provided from activity-based costing method. Again, while taking customer satisfaction into consideration, changes will be made in product design and development. At this point, reflecting these changes to the costs can be realized with activity-based costing method.

For providing more accurate and extensive information in cost management, it's beneficial to operate target costing with the activity-based costing which is presented as an alternative to conventional method. Particularly common cost areas pose a problem in the businesses. In target costing, the costs start at the market level and branches to the level of every subsection. At this point, when allocating common costs, ABC is going to be able to provide more accurate informations for target costing.

References:

ACAR, D: Kuresel Rekabette Maliyet Yönetimi ve Yaklaşımları: Tekstil Sektörü ile İlgili Bir Araştırma, Asil Yayın, 1. Baskı, Ankara, Şubat 2005

ACAR, Funda: Hedef Maliyetleme Yonteminin Yönetim Kararlarındaki Rolü ve Mamul Geliştirme Aşamasında Uygulanması, Uludag Universitresi , Sosyal Bilimler Enstitüsü, Basılmamış Yuksek Lisans Tezi, 2005

AKSOYLU, S., YUNUS D.: "Pazarda Rekabetçi Ustünlük Aracı Olarak Hedef Maliyetleme", Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, S: 11. 2001

AKSOYLU, Semra: Sanayi Isletmelerinde Hedef Maliyetleme ve Faaliyete Dayalı Maliyetleme Sistemlerinin Birlikte Uygulanması, Basılmamış Doktora Tezi, İstanbul Üniversitesi, Sosyal Bilimler Enstitüsü, İstanbul, 2001

ALAGÖZ A., CERAN,Y. : "Stratejik Maliyet ve Kâr Planlama Aracı Olarak Hedef Maliyet Yönetimi (Target Cost Management)", Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, S:15, Konya., 2006

ALAGÖZ, A. ve Diğerleri : "Maliyetlerin Düşürülmesinde Hedef Maliyetleme Yönteminin Rolü ve Uygulanabilirliğine Yönelik Bir Araştırma", V.Ulusal Üretim Araştırmaları Sempozyumu, İstanbul Ticaret Üniversitesi, 25-27Kasım 2005.

ALKAN, Alper Tunga: "Faaliyet Tabanlı Maliyet Sistemi ve Bir Uygulama", Selçuk Üniversitesi, Sosyal Bilimler Enstitüsü Dergisi Yıl 2005, Sayı 13, ss. 39–56, 2005

ARZOVA, S. Burak : *Faaliyet Tabanlı Maliyet Yönetimi*, Türkmen Kitabevi, İstanbul, 2002.

BAHŞİ G. ve CAN A.V. : "Hedef Maliyetleme", Muhasebe ve Denetime Bakış, Mayıs 2001

BALCI, Baki R., Faaliyet Tabanlı Bütçeleme ve Bir üretim İşletmesindeki Uygulaması, Sakarya Üniversitesi, Sosyal Bilimler Enstitüsü, Yayımlanmamış Doktora Tezi, 2007.

BENGU, Haluk. "Faaliyet Tabanlı Maliyetleme Sisteminde Maliyet Uygulaması", Muhasebe ve Finansman Dergisi, İstanbul, S:25, 2005

BRUNS, W. J. : *Accounting for Managers Text and Cases,* South-Western College Publishing: Boston.,1999

BUTSCHER, Stephan A. - LAKER, Michael, (2000), "Market Driven Product Development", MM, Summer,2000

CAN, Ahmet Vecdi, *Maliyet Yönetiminde Pazara Dayalı Bir Yaklaşım: Hedef Maliyetleme*, Basılmamış Doktora Tezi, Sakarya Üniversitesi, Sosyal Bilimler Enstitüsü, Sakarya, 2002.

CAN, Vecdi A., *Hedef Maliyetleme Kuram ve Uygulaması*, Kitabevi, Sakarya, 2004

CECILY, R, A., Barfield Jesse T., Kinney Michael R., Managerial Accounting,South-Western College Publishing, New York 1999

CENGİZ, Emre ,Hedef Maliyetleme Süreci: Antalya Organize Sanayi Bölgesinde Faaliyet Gösteren Makine Üreticisi Bir Firmada Örnek Olay Çalışması, Akdeniz Üniversitesi Sosyal Bilimler Enstitüsü, 2010

COOPER, R. and SLAGMULDER, R., "Develop Profitable New Products with Target Costing", Sloan Management Review, Summer, 1999,

COOPER, Robin. "The Rise of Activity Based Costing-Part One: What is an Activity Based Cost System?", Journal of Cost Management, 1988

COOPER, R. ve KAPLAN, R. S. : "Profit Priorities from Activity-Based Costing", Harvard Business Review, May-June,1991

COKINS, G. "Learning, To Love A.B.C", Journal of Accountancy, August 1999

COŞKUN A. :"Stratejik Maliyet Yönetimi Aracı Olarak Hedef Maliyetleme", Akademik Araştırmalar Dergisi, S:15, Ocak 2003.

ERDOĞAN, Nurten: "Faaliyete Dayalı Maliyetleme:Maliyet Muhasebesinde Yeni Bir Yaklaşım", Anadolu Üniv.İİBF. Yay., Eskişehir, 1995

EROL, Mikail : "Hedef Maliyetleme ve Hedef Maliyetlemenin Maliyet Yönetim Aracı Olarak Kullanılması", Mükellefin Dergisi, Sayı: 116, Ağustos 2002.

ERTAŞ, F. : "Yeni ve Dinamik Bir Maliyet Aracı Olarak Hedef Maliyetleme Yöntemi", Atatürk Üniversitesi İİBF Dergisi, C:12, S:1-2.,1998

GAGNE M. L., Discenza R., "New Product Costing, Japanese Style", The CPA Journal, Vol. 63, No. 5,1993

GÖKÇEN, G.: "Maliyet Düsürme Yaklasımı Olarak Hedef Maliyetleme", Muhasebe ve Finansman Dergisi, Sayı:20, 2003

GÜNDÜZ, H. Erdin : Dünya Klâsındaki İşletmelerde Bir Maliyet Yönetim Aracı Olarak Faaliyetlere Dayalı Maliyetleme Sistemi ve Bir Uygulama, Sermaye Piyasası Kurulu, Yayın No:99, Ankara, 1997

Gupta, K.Galloway, "Activity Based Costing, Management and its Implications for Operations Management" Technovation, V:23, No:2, Feb. 2003

GÜZELDERE, Tülay Aner, , Üretim işletmelerinde faaliyet tabanlı maliyetleme yaklaşımı ve bir uygulama, İstanbul Üniversitesi, Sosyal Bilimler Enstitüsü, Yayınlanmamış Doktora Tezi, 2007

HORVATH, P., GLEICH R., SCHMIDT, S., "Linking Target Costing To ABC at a US Automotive Supplier", Journal of Cost Management, Vol. 12, No. 2, March/April:1998

KARACA , Nevran: Faaliyet Tabanlı Bütçeleme Modellemesi ve Bir Üretim İşletmesi Uygulaması, Sakarya Üniversitesi, Sosyal Bilimler Enstitüsü, Yayınlanmamış Doktora Tezi, 2008

KARCIOĞLU, R. , : *Stratejik Maliyet Yönetimi: Maliyet ve Yönetim Muhasebesinde Yeni Yaklaşımlar*, Aktif Yayınevi, Erzurum.2000

KAYGUSUZ, S.Y., Maliyet Yönetim Aracı Olark Faaliyet Tabanlı Bütçeleme", Active Bankacılık ve Finans Dergisi, İstanbul, Alkım Yayıncılık, Mayıs-Haziran 2002

KOÇSOY, M. ve GÜRDAL, K. : "Türk İmalat İşletmelerinde Hedef Maliyetleme Uygulamalarındsan Elde Edilen Faydalar ve Hedef Maliyetlemenin Başarısını Etkileyen Faktörler", Muhasebe ve Vergi Uygulamaları Dergisi, C:1, S:2, Eylül 2008.
KOONS F. J., "Applying ABC to Target Costs", Transactions of the American Association of Cost Engineers, (1994), 70-73
KOŞAN, L. ve GEÇGİN E. : "Müşteri Beklentisi ve Maliyet Yönetimi Hedef Maliyet Sistemi ve Bir Örnek Uygulama", Mali Çözüm Dergisi, Temmuz Ağustos-2011
KUTAY N. ve AKKAYA C. G. "Stratejik Maliyet Yönetimi Aracı Olarak Hedef Maliyetleme", Dokuz Eylül Üniversitesi İİ.B.F. Dergisi, C:15, S:2., 2000
LEE J. Y., "Use Target Costing To Improve Your Bottom-Line", The CPA Journal, Vol. 64, No. 1, 68–71, 1994
LOCKAMY A., III, SMITH W. I., "Target Costing for Supply Chain Management: Criteria and Selection", Industrial Management+Data Systems", Vol. 100, No. 5, 210–218. ,2000
LORINO, P., :Part II: Target Costing – Practice and Implementation. IFAC/ Article of Merit. Competition, ss.79 – 100, 1995.
ÖKER F: Faaliyet Tabanlı Maliyetleme, Üretim ve hizmet işletmelerinde uygulamalar, İstanbul: Literatür yayıncılık, 2003
ÖNDEŞ, T. ve Diğerleri :Stratejik Maliyet Yönetim Aracı Olarak Hedef Maliyetleme ve Devlet Orman İşletmelerinde Uygulanabilirliği, III. Ulusal Karadeniz Ormancılık Kongresi, C:I, S.247-258, 2010.
ÖZCAN M., YÜCEL R. ve ÇETİN A.T.: "Mamül ve Hizmet Maliyetlerinin Saptanmasında Faaliyete Dayalı Maliyet Yönetiminin Kullanılması", Mevzuat Dergisi, Y:6, S:67, Temmuz 2003
ÖZER, Alper : "Pazarlama İle İlgili Kararlarda Faaliyet Tabanlı Maliyetlemenin Etkisi", Muhasebe ve Denetime Bakış Dergisi, Yıl:4, Sayı:13, Eylül, s.123-137, 2004.
ÖZER, G: Ürün geliştirme Süreçlerinde Faaliyete Dayalı Tekniklerin Kullanımı, Muhasebe ve Denetime Bakış, Yıl:2, Sayı:5,Ekim, 2001
PARLAKKAYA, R: "Faaliyet Tabanlı Maliyetleme Ortamında Esnek Bütçeleme ve Sapma Analizi," Süleyman Demirel Üniversitesi İ.İ.B.F Dergisi, Cilt 9, Sayı 1,2004.
PAZARÇEVİREN, Selim (2000), Standart Maliyet Sistemi, Çizgi Yayıncılık, İstanbul, 2000
PAZARÇEVİREN, Selim Yüksel: *"Dinlence İşletmelerinde Faaliyet Tabanlı Maliyetleme Modeli Önerisi"*, Marmara Üniversitesi Muhasebe-Finansman Araştırma ve Uygulama Dergisi, C:6, S:15, 2006
ŞAKRAK, M., Maliyet Yönetimi Maliyet ve Yönetim MuhasebesindeYeni Yaklaşımlar, 1. Basım, İstanbul: Yasa Yayınları, Yayın No: 080, 1997
ŞAKRAK M. ve HACIRÜSTEMOĞLU R. ,Maliyet Muhasebesinde Güncel Yaklaşımlar, İstanbul: Türkmen Kitapevi., 2002.
THOMSON J., GUROWKA J., "Sorting Out The Clutter", Strategic Finance, Vol. 87, No. 2, 27-33., 2005.
SWENSON, D., ANSARI, S., BELL, J. ve Kim, Il-W: "Best Practices İn Target Costing" Management Accounting Quarterly, Winter, 4(2), ss.12-17., 2003.
YILMAZ, R. Ve BARAL, G :"İşletme Karlılığını Artırmada Stratejik Maliyet Yönetim Aracı Olarak Hedef Maliyetleme", 5.Ulusal Meslek Yüksek Okulları Sempozyumu, Konya 27-29 Mayıs 2009.
YÜKÇÜ ,S. ve ŞAFAK, İ.:"GÜM'lerin Mamullere Yüklenmesinde Yeni Bir Yaklaşım Faaliyet-Hacmi Maliyetlendirmesi", DEÜ., İİBF. Dergisi, C:11, S:II, 1996
HORVATH, Peter; Target Costing: A State of The Art Review, IFS International Ltd., 1993
Erdoğan N.,Faaliyete Dayalı Maliyetleme, Eskişehir: Anadolu Ünv. Yayınları no:867, İ.İ.B.F. Yayınları, No:106, 1995
YÜKÇÜ, Süleyman , *Yönetim Açısından Maliyet Muhasebesi*, Cem Ofset, İzmir, 1999.