

Impact of Technical Integration of Target Cost and Production Time to Improve and Enhance Competitive Advantage

Hayder Sabri Sarhan, Yas Khudhair Abbas Alkhamees and
Yousifmashkoorkadhim

Abstract--- *The technical revolution here and the modern manufacturing environment have a significant impact on the development of the accounting field of costs represented by these new developments in the accounting field, especially those related to these techniques to manage the target cost and enhance competitiveness (such as the production system on time, the flashing system, total quality management, costs and management on the basis and activities, Continuous improvement, target cost, advanced value engineering, benchmarking, constraint theory and balanced scorecard). Where these technologies have been able to affect the accounting system at cost and on the recruitment of these technologies to serve both private business organizations (sophisticated and electronically controlled and the use of flexible and integrated manufacturing systems).*

Keywords--- *Technical Integration, Cost and Production Time, Developments in the Accounting Field.*

I. INTRODUCTION

Technological developments here are the foundations of human civilizational developments throughout the ages. The history of civilization here consists of the mutual interaction between those laws that support and control man at the same time, both technology and society, and technology plays an important role in the industrialization process. Modern technology and the intensification of competition has increased those challenges faced by cost accounting, where that technological development had its effects on those aspects of public life and productive activity in particular.

In this framework, some strategies related to production costs have emerged, including that of activity-based costing and targeted costing methods, which have proven to be effective in reducing production costs in industrial companies. Effective use of such strategies as value engineering, evolving costs and management of activities, and efforts to develop these new cost-cutting solutions, and to develop more efficient and effective programs by managing the resources of the Competitive advantage and competitive advantage, and the ensuing cost management in a clear economic manner, and provide products or services satisfy the wishes of customers, and meet the requirements of local and international competition conditions in the domestic and overseas market.

II. RESEARCH PROBLEM

The main problem here is that many of these organizations and companies are still afraid to enter the modern manufacturing world (for reasons of inability to control markets and pricing decisions and consequently inability to

Hayder Sabri Sarhan, The General Directorate of Qadisiyah Education. E-mail: Wwzz158@gmail.com

Yas Khudhair Abbas Alkhamees, AL-FouratAL-Awsat Technical University □AL-Dewaniyah Technical Institute. E-mail: Dw.Yas@atu.edu

Yousifmashkoorkadhim, The General Directorate of Qadisiyah Education. E-mail: Yousufaliraqi2000@gmail.com

control costs in addition to adopting traditional methods of reducing costs that cannot offer any competitive advantage. Although entering into this world has become inevitable and important in the face of intense competition conditions, the impact of this environment on cost accounting is represented by the developments of cost management (target cost management techniques), which in turn becomes cost management Targeted access to leadership in cost easier and faster through the integration of these technologies and service organizations Aloamalochakiq Avill competitive markets have the advantage.

Research Hypothesis

The research here is based on several hypotheses as follows:

1. The modern techniques in cost accounting represented by these techniques of cost management aim to clarify the impact of cost accounting on the modern environment and its interaction with it.
2. The use of a combination of these techniques to manage costs together has a more positive impact on these organizations if certain techniques are used alone because of the complementarity and interdependence of technologies.
3. The objectives of these cost management techniques are fully consistent with those objectives organizations in the modern environment in terms of target cost and improve quality and achieve customer satisfaction and growth and continuity in the market and build what distinguishes them from other market environment.

Research Objective

This research aims to present these techniques with cost management as a novelty in cost accounting and to show the extent of integration and interdependence between these techniques and their impact on services in business organizations in achieving the desired goals.

Research Importance

Since the aim of the research is to present these techniques by managing the costs and show the extent of complementarity and interdependence and achieve the competitive advantage and target costs of the organization, therefore, the importance of research lies here in the importance of these techniques to business organizations and their impact in compensating organizations for some of the levers that have escaped their hand in light of intense competition Within the modern environment.

III. RESEARCH METHODOLOGY

The research was adopted using the descriptive method in preparing the research through reference to theses, theses, scientific researches and Arabic and foreign books.

Research Plan

According to the research problem and based on its importance, objectives and hypotheses, which the researcher seeks to study and achieve, the research can be divided into the following topics:

First: Previous studies in the field of study.

The second topic: - Target cost and advantages of application in the field of pricing and cost reduction

2/1: Target cost method and the advantages of its application in the field of pricing and cost reduction.

2/2: Problems and stages of applying the target cost in the production and services sector.

The third topic: The target cost and its role in raising the competitiveness of the services of companies and organizations

1: The necessary elements to apply the target cost method in the services sector.

2 The role of the target cost in supporting the competitiveness of companies and organizations.

3/4: Advantages of applying the target cost method in business organizations.

3/5: Problems of application of the target cost method.

The fourth topic: ----- Cost management techniques

First: Cost management techniques in a modern manufacturing environment.

The first group: includes advanced technologies as follows (production on time, flash back, management with total quality).

The second group includes technologies (target cost, value engineering, continuous improvement).

The fifth topic - the relations of integration between the techniques of each group and the techniques of groups as a whole:

Sixth: Findings and recommendations of the research.

Seventh: Research References.

The First Topic

Previous studies in the field of study

There are many researches and studies that deal with many aspects of this topic, the researcher here will address some of these studies as follows:

1. A study (Samir, Dr. / Walid, 2013), which addressed the entrance costs target as one of the most important actors of the progress of Japanese industry, and to clarify that it is a necessity of survival in the market and the face of fierce competition that has become one of the most important features of global markets at present, It also dealt with each of the stages of the application of the target cost approach and ways of development, and the difficulties faced by the application in industrial companies, and show the most important advantages and factors supporting their application through the stages of production of the product unit under the prevailing competitive conditions in the era of globalization and developments Knulogih high-speed.
2. A study (Zo'rob, Dr. / HamdiShehdeh, Abu Odeh, A. / Ali Adnan, 2012), which dealt with the importance of using the target cost approach in improving the efficiency of pricing services for organizations, as well as the advantages of applying this approach besides the problems. And the obstacles that stand in front of application and the study reached several important findings and recommendations, including:
 - A. The application of a targeted cost approach to companies and organizations can bring many benefits, including cost reduction, continuous improvement of services and competitive advantage of the product

- B. Many of those components help to apply the approach at the target cost of service pricing but with some constraints that need further studies to address and develop appropriate solutions.
 - C. The need to develop and update the accounting systems of the organizations to suit the continuous development in the business environment.
 - D. The need to activate the cost accounting systems in banks, and to provide those scientific and practical competencies necessary for its application in the pricing of Egyptian services for the advantage of non-competitive product.
3. The study (Kocsoy, M., et. Al., 2008), and the study alternatives here how to benefit from companies with modern technology in the application of the target cost system, especially in light of the rapid change in expectations, wishes and needs.

The Second Topic

First: target cost and advantages of application in the field of pricing and reduce the cost of products and services.

The concept cost target first began in Japan since 1973, and has been applied in more than 40 Japanese industrial companies.

1. The method of the target cost and the advantages of its application in the field of pricing and cost reduction.

The concept and nature of the target cost method:

One of the research authors (Fouda, Dr. / Shawky, 2007) has defined the target cost as a cost management tool that aims to reduce the cost of the product during the planning, development and design stage. Which can be achieved at that stage than in the other phases that follow, taking into account the retention of the quality of production and the degree of confidence and satisfaction of customers.

2. Objectives and advantages of the application of the target cost:

Due to the fierce competition and the dramatic developments in the production and information systems technology that have prevailed in the world recently, these studies and researches that try to face these challenges and difficulties have increased here. (Mansour, A. / Mahmoud, 2008), (Zaabar, Dr. / Hamdi, 2011), (Mehdi, A. / Thawadi, 2009) whose application aims to:

1. Reduction in the cost of production or services, which is the main and main objective of the application of the target cost, taking into account the maintenance of quality and adherence to all conditions, such as the right price according to those prevailing market prices, the right timing and customer satisfaction, and others.
2. Strive to achieve the target profit, through the continuous motivation of workers at all levels of management and rehabilitation and training on the use of the application of the target cost method.
3. Seek to achieve continuous cost reduction while seeking to make competitive advantage and increase the manufactured product through the follow-up of these policies strategic planning of the company, and increase the effectiveness of design and development of the product or service.
4. Attract customers and improve the competitive position, through the continuous development of products or

services and through the spirit of belonging to the employees of the Organization.

5. Focus on the external environment of the organization by focusing on the specifications of the product or service and the wishes of customers and competitors, which increases their competitiveness in the markets.

Second: The stages and problems in applying the targeted costs in the production and services sector.

1. Stages and steps to apply the target cost:

One study (Mansour, Dr. / AsmaaAwad Mohamed, 2008) indicated that applying the method at the target cost must pass through several basic steps or stages, as follows:

- 1) The first stage: the market level.

According to this stage, all the problems and obstacles facing the organization in the market from the designers and suppliers of the product or service are addressed, where the target cost is calculated so that it is based on the prevailing market prices, and thus becomes the starting point of the market rather than specific estimates or internal standards at the cost used by those. Traditional methods of cost calculation.

The target cost method here is a basic idea of its content is: - Seek to reduce the cost by producing a product or service, and not only reduce the prevailing market prices paid by customers to the organization, and therefore the target cost method when determining prices take into account some aspects Basic, including:

- A. The tastes, needs and desires of the customers of the organization in which they will affect the cost and price of the product or service.
- B. The right price, the price that is proportionate to the customer and satisfied and willing to pay.
- C. Competitive market conditions, in terms of both the quality of the product or service and its prices and functions.
- D. The Organization's market share which it wishes to increase by exceeding competitive prices.

- 2) Phase II: the level of products.

At this stage, both the capabilities of the organization or the suppliers are taken into account when estimating that cost, where the cost of the product or service is estimated according to those capabilities of the organization and the level of technology applied, so that the product or service is designed to be compatible with the target cost.

- 3) Phase III: the level of parts.

Here in many cases are carried out in parallel with the second stage, where the components are divided into those sub-functions and try to reduce the cost of each part separately, such as what was done at the level of the product or service, taking into account the factors affecting, which are the most important:

- A. The degree of horizontal integration.
- B. Strength towards the majority of suppliers.
- C. The nature of relationships with suppliers.

The Third Topic

The role of the target cost in supporting the competitiveness of companies and organizations, while mentioning the problems of their application.

The target cost approach is based primarily on the enhancement of the competitive cost center, where competitive advantage is achieved through cost reduction which should not exceed both the average industrial cost or the service sector in order to measure its competitiveness.

First: - Requirements required for the application in ways targeted cost in the services sector:

After reviewing here the researcher of this concept of the target cost and benefits that can be achieved, and the basic stages of its application and that positive role in the face of fierce competition prevailing in the market of production and services, it does not achieve sufficient guarantees for its success in implementation, but must have faith in the need to apply it to ensure the survival, growth and continuity The Organization through facing the prevailing competition that has become one of the most important modern features and must have the potential to support the success of this method and some studies have shown (Abu Odeh, A. / Ali Adnan, 2010) and (Mansour, Dr. / Asmaa Awad Mohamed , 2008) so from Lal conduct a poll of 135 Japanese companies listed in Tokyo Stock Exchange, the application targeted at cost requires success here provide many of these ingredients of the most important of which are the following:

1. The Organization should have a sophisticated accounting information system capable of accommodating the latest developments in accounting in general.
2. The existence of an efficient system of these costs is able to calculate the target cost, depending on the study of the market and trends in prices.

Second: the importance of competitiveness:

It is clear from the previous definition that the importance of competitiveness here lies in its ability to achieve and cover the three basic things, namely:

1. Create value able to meet and maintain customer needs, and continuously improve the reputation of the organization.
2. Maintaining the appropriate market share of the organization in the market in order to achieve maximum profitability and ensure survival, growth and continuity in the market.

Third: The role of the target cost in supporting the competitiveness of services in the organization.

The researcher considers that the use of the method at the target cost should be one of the general strategic tools of the organization as it is responsible for the improvement and development of services, which includes the price strategy and nature of the service provided. Continuously in order to reduce costs to the side of improving both operational efficiencies and the quality of service provided and able to satisfy the customers benefiting from it.

One study (Sulfur, A. / Hanan Abdullah, 2005) indicated that the strategy at the target cost method is reflected in its reliance on these competitive prices and thus can reduce costs to achieve a future competitive advantage by relying on one of the three competitive strategies that show the strategic role Target cost more clearly, and among these strategies are:

1. Cost Control Strategy: Where the organization succeeds in accordance with that strategy in the adoption and implementation and gain competitive advantage through the low cost of the product in accordance with the

- application of the target cost method, which is implemented in the planning and design phase of the service.
2. Distinctive strategy: applied by the organization according to the provision of a high quality service and specifications distinct from the services of competing organizations in order to improve quality and satisfy the desires of customers.
 3. Focus Strategy: Here, the organization adopts policies to focus on the specific category of customers, or the specific sector in the surrounding market, which is targeted by the organization through the strategy of cost control and discrimination strategy to support and increase efficiency and competitiveness against competitors, and ensure Stay, grow and continue.

The Fourth Topic - Management Techniques at the Target Cost

First: Management techniques to reduce cost and includes the following four groups:

First Group

This group included three techniques:

- 1- JUST IN TIME (JIT)
- BACK FLASH COSTING (BFC)
- TOTAL QUANTITY MANAGEMENT (TQM)

1- Technical Production Time

JIT is a revolution in inventory and cost management through the philosophy and strategy of obtaining these raw materials on time from suppliers in accordance with their production schedules.

JIT has also been defined as “the comprehensive philosophy of reduction management focusing on those policies, procedures and attitudes by managers that result in efficient production of high quality goods while maintaining the lowest cost level”. (Morse et al, 2003, 341) The benefits and gains of this technique are: (Weygandt et al, 2002, 159)

Reduction or cancellation of funds frozen in stock.

(B) Reduction by damage and consequently reduction of costs by damage;

Enhancing the quality of the product.

Reduce costs for recycling and disposal.

E- Saving production costs through developing the flow of goods through operations. (Beauty and Nouredine, 2005, 169).

2 - Bounce Flash Technology

One of the results of the application of JIT technology is to simplify the accounting system of the cost of the product as it can be considered as an alternative to the method of successive tracking through the use of reverse flow by cost or the so-called (flash back system).

It has also defined this technique as “the system for measuring the cost at which the recording of a situation in a product is delayed until that product is complete (Al-Jamal, 2000, 70).

The most important of these features of the system of reverse flow of cost Clati: - (Marei et al., 2003, 367).

Postponing the proof of such changes to the product until it becomes a complete product.

2. Exclude the existence of these independent accounts of materials and productivity under operation.

3 - Integration of direct work (to be considered in the modern industrial environment of relatively low value) with that cost.

3- Total Quality Management Technology

In the modern manufacturing environment, achieving and implementing quality is not costly but costly is not achieved. Therefore, quality has become an urgent necessity for any company that wants to achieve and reach the objectives of that growth, balance and market stability. Therefore, TQM has been defined as "the continuous process of improvement which seeks and wants to increase consumer satisfaction by identifying those problems and obstacles and working on solving them" (Al-Sabou ', 2000, 38).

Second Group:

This group includes three techniques:

1. Target Cost Technology (T.C)

Value Engineering (V.E)

3- Kaizen continuous improvement technique

Each of the techniques in this group is as follows:

1- Product Target Cost Technology

One of the most important characteristics of the modern manufacturing environment is the intense competition that offers the great technological development in the industry and the multiple needs of customers, which drives those working organizations to seek growth and balance and then continue and adopt price policies that are in line with these developments and events surrounding the organization, and perhaps pricing Here on the foundations of the market is considered the most important and most modern approaches because it is based on the foundations of market research to determine that price and then determine the cost in light of the price after determining the margin of a certain profit that those organizations want to achieve and this approach is called (target cost).

Target cost technology (TC) is one of the most important techniques of cost management. It is also known as (one of the market-oriented cost management techniques used at the beginning of the product life - then the early stage of the product life cycle - then enhancing profitability and productivity) (Golden and Ghaban, 2007, 236).

The justification can be determined here using the target cost technique in the following points: - (Golden and Ghaban, 2007, 237), (Garrison, 2000, 1041).

1. Growth and increasing global competition for many different industries, as this technology includes that set of methods and tools used to guide the objectives of cost management and activities in the design and planning of production and provide the basis for such effective control to ensure profit target.
2. These technical developments and ongoing changes.

3. Orientation towards the customer so that work to meet the satisfaction of those basic dimensions of this technology.
4. Most of these costs are determined by the design phase and when this product has been approved
Steps to implement Target Cost Technology:

T.C technology can be implemented in several steps as follows (Drury, 2000, 892) (Golden and Ghost, 2007, 239).

1. Set that target price.
2. Determine the target profit of the product.

Determine the target cost.

- 4 - Use of advanced engineering to identify ways to reduce the cost of the product.
- 5 - Use and work to continuously improve costs and control operational processes.

(Samurai, 1999, 15)

2- Advanced Engineering Technology

In applying this technique from the target cost, consideration is given to the mismatch between the market price and the target profit (represented by the target cost) of that particular product with its initial cost of production (i.e. the production cost is greater than its target cost). Value engineering technology V. E to determine ways to reduce cost.

It can be said that this valuable engineering technique came here in response to the target cost technique.

It was defined as the engineering technique (it is the activity to design the product from those different angles at the lowest possible cost by reviewing those functions or benefits needed by the customer). (Basil, 2001, 105).

Here it achieves its objectives in the target cost through:

1. Determine the designs produced, which reduce the cost of manufacturing and the cost of parts without sacrificing functionality or by those new products.
2. Abolish those unnecessary functions that increase the cost of the product.

Value engineering relies on functional analysis to determine the main functions and characteristics of the product, study its components and parts, and then evaluate the alternatives, including product modification or the development of alternative products.

The stages of application in value engineering are applied by a functional team through: (Khadr, 2005, 25).

1. The first stage: Characteristic analysis of the functional where in this stage can be aggregated to those characteristics desired by the consumer and then arranged according to the importance and cost of implementation.
2. The second stage: constructive thinking of the examination phase of those elements and characteristics that got the low index and disposal if possible in order to reduce that cost.
3. Phase III: Analysis this phase is to examine all the alternatives and solutions available in order to reduce the cost and then choose the best ones.

4. Phase IV: Converting these alternatives to planned approaches to reduce cost.

3- Continuous Improvement Technique

Continuous improvement in Japan is called the term Kaizen, a modern, important and sophisticated technology based on the introduction of these improvements in a gradual and consecutive form of production.

In order to achieve continuous improvement in order to satisfy the desires of consumers and satisfy their ambition and achieve that competitive advantage of the organization and thus increase its market share (Basile, 2001, 109)

Continuous improvement is based on the following: (Kassab, 2004, 12)

1. Improvement is not the end but rather continuous as long as these organizations are based on the requirements of their existence.
2. Continuous improvement is that comprehensive process of development.
3. Operations need to be improved by the efforts of FAO staff.
4. Participation and teamwork are here because improvement is that collective responsibility.
5. Optimization of time to reach discrimination in competition.
6. Continuous improvement based on these advanced technological means available.

The Fifth Topic: - Relationships of Integration between the Techniques of each Group and Techniques of Groups as a Whole

1- The extent of integration between the first group technologies (JIT, TQM and B.F.C) and the impact on the services of the organizations:

Since JIT's comprehensive inventory management philosophy is a system that reduces production costs by eliminating as much production delays and eliminating stored costs, the accounting response has met the costs of this new cost-tracking and flash-tracking technology, called flashback. Reverse cost recording, because these costs must adapt to the modern manufacturing environment, so JIT and BFC are complementary to achieve those goals that JIT seeks to achieve through joint The modern manufacturing environment has become that good planning is one of the components of efficient management of which are planned inventory so that the quest here to reach that inventory to the lowest levels and then access to zero inventory of that by relying on access to materials only when needed and thus reflected on the reduction of costs.

2- The extent of integration between the second group technologies (ABC, ABM and ABB) and the impact in the service of the organization

Through the identification and classification of the main internal activities in the manufacture of products from which the work of ABC technology is based on the basis that the activities that consume those resources and then the products that consume and thus the cost).

So that the outputs of ABC technology become so important source of information for the launch of ABM and ABB where it cannot be applied that ABM and ABB technology in isolation or without the application of ABC

technology because the latter is the primary source of information.

In addition, ABC identifies those activities that add value and activities that do not add value. ABM technology identifies necessary activities with efficiency and unnecessary inefficient activities. It enables management to exploit this information at cost and activity information to improve profitability and reduce Costs and reach to achieve targeted profits.

IV. SIXTH: CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. Management provides the information cost needed by management and the organization, whether financial or non-financial information, through these developments of accounting costs, represented by management techniques at the cost of the target organization.
2. Through these new techniques in the science of cost accounting to show the cost of products accurately and measure performance by follow-up cost and through the use and knowledge of the causal relationships between both costs and activities, including helping to continue these organizational strategies.
3. There is an integral relationship between these techniques ABC, ABM and ABB
4. ABC technology is based on structured division into many activities and considers activities that consume those resources and products that consume activities and that ABC is an important source of information to launch ABM technology.

V. RECOMMENDATIONS

1. The vast technological developments in all fields of business and in the field of industrialization should be interacted with these organizations on the one hand and work to adapt them to serve their interests on the other.
2. As a result of the interaction of the organization with this modern environment, the organization has to respond to these environmental conditions by relying on modern techniques of cost management to provide that information that supports the organization in the implementation and development of its strategy and achieve that competitive advantage of its own market.
3. Since the JIT technology that requires TQM as one of its components, the integrated technical work will work here to achieve the desired objectives of the application of JIT, B.F.C and TQM.

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