

*Full Length Research Paper*

# Studying the obstacles of applying a target costing system in firms accepted in Tehran Stock Exchange

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Target system is one of the most important techniques which can help organizations to improve cost-based performances. In this method, the products' sale price is anticipated before production processes start, based on surveys in the market and manufacturers try to design and manufacture a product according to the predetermined cost to ensure the management's desirable profit. Meanwhile, it should have a desirable quality and benefit from a competitive status, in a way that absorbs customers' satisfaction in suitable manner. In this research, we will focus on studying the obstacles of applying a target costing system in firms accepted in Tehran Stock Exchange. The statistical population of this research involves a sample of 100 people from among the managers and scholars of firms accepted in Stock Exchange. For statistical method of the research, we use T-Students test in regression analysis. The findings of this research indicate that the following items are among the obstacles of applying a target costing system: "it is impossible to assign a competitive price", "customers' satisfaction idea is not common", "there is no group work spirit", "activity-based costing system is not used", and "value engineering is not utilized".

**Key words:** Cost management, cost management techniques, target costing, value engineering.

## INTRODUCTION

The rate of economic and technology changes in the world has never been the same as the recent decades. These changes have affected all dimensions of an organization's existence. Today, the successful organizations manage the environmental changes around themselves in a suitable way. Nowadays, the business world emphasizes on innovation and customer satisfaction. This requires management to review the organization's performance as an outsider.

The researches done about superior financial managers in 1980s show that about 75 to 80% of their working hours were devoted to financial reporting and cost determination. Meanwhile, it seems that in 21<sup>st</sup> century, managers can appropriate only 10 to 25% of their working hours for it. This is due to the fact that things related to common and traditional accounting and financial reporting have become automatized and changed into a definite and usual trend. In this case,

managers will be useful for their entities only when they help them in decision-makings and strategy determining. In 21<sup>st</sup> century, financial managers should devote some of their working hours to study, analyze and interpret the opportunities and management decision makings (Hilton et al., 2000).

Meanwhile, target costing is proposed as one of several methods for costing management which can supply strategic goals and long-term profitability for the business entity (Etemadi and Zaree, 2005). Target costing is a strategic process in management to reduce costs in primary phases of designing and planning the products and it focuses on future products' costing management in a manufacturing entity. Target costing is exactly the opposite of the traditional methods and it is started with purposeful sales prices (Eshaghi, 2008).

## Target costing

Target costing is a strategic issue in cost management in which the main discussion is about cost estimation for the

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product or a service and a company achieves target revenue (desirable revenue) based on that product's sale (Horongren, 1994).

In fact target costing is a strategy to reach a service or product's price in a way that the price is determined competitively and the expected profit is predetermined. Thus, in the overall equation (cost – sales – profit), sales and profit is supposed to be predetermined and absolute (Dastgir and Arab-e-Yarmohammadi, 2005).

So we should conduct costs to a point in which the cost does not exceed the predetermined sales price and the minimum of expected profit. The thing that makes the management's role more critical is that the reduction and controlling of the costs should accompany the maintenance and sometimes even the promotion of quality. Thus, it is stated that target costing is a part of concise management process to preserve the organization's existence in an increasingly competitive environment (Castellano, 2003).

## COMPARING TRADITIONAL COST MANAGEMENT AND TARGET COSTING APPROACHES

The most common approach in profit planning management is the traditional approach which includes the cost in addition to an interest percentage. There are undeniable attractions in traditional costing approach because it is easy to be used and it is easily perceived when the production cycle of the product is long, the competition is limited and domestic demand for product purchase is high (Cooper and Slagmulder, 1997a,b).

Cost items are easily calculated through an accounting system. In this approach, first the primary production costs are estimated and then a profit margin is added to achieve the market price and if the market does not accept this price, the company tries to find ways to reduce the costs. Meanwhile, target costing is planned with market price and a profit and production starts with implementing the authorized costs and designing the activities and production starts after the reduction of costs down to the amount equal to the authorized costs (Jalali et al., 2009).

## RESEARCH HYPOTHESES

To realize the main goal of the present research, studying the obstacles of implementing target costing system, the research hypotheses are planned as follows:

**H<sub>1</sub>:** One of the obstacles of applying target costing system in firms accepted in Tehran Stock Exchange is the impossibility of determining a competitive price.

**H<sub>2</sub>:** One of the obstacles of applying target costing system in firms accepted in Tehran Stock Exchange is that customer satisfaction is not common.

**H<sub>3</sub>:** One of the obstacles of applying target costing system in firms accepted in Tehran Stock Exchange is that there is no spirit of group work.

**H<sub>4</sub>:** One of the obstacles of applying target costing system in firms accepted in Tehran Stock Exchange is that activity based costing system is not used.

**H<sub>5</sub>:** One of the obstacles of applying target costing system in firms accepted in Tehran Stock Exchange is that value engineering is not used.

## Research variables

In this research, the obstacles of applying target costing are considered to be independent variables which are as follows: the impossibility of determining a competitive price, customer satisfaction is not common, there is no spirit of group work, activity based costing system is not used, and value engineering is not used. Also target costing system is a dependent variable which is going to be studied by the researcher to indicate the obstacles of its use.

## RESEARCH METHODOLOGY

### Research method

Since this research was aimed at describing the obstacles of applying a target costing system as justified by a hundred scholars and specialists accessible to us, this research is a descriptive-survey and its purpose is practical.

### Data collection method

In this research, data collection was first carried out through library studies (books, papers, dissertations, and internet texts) and then the researcher referred to the specialists and presented some questionnaires related to the collection of the needed data for this paper. Also it should be noted that the measurement criterion in this research is 5 pointed Likert's spectrum.

### Data analysis method

To analyze the data, the researchers have used T-Student technique in regression test and coefficient correlation to study the type of relationship between independent and dependent variables.

Coefficient correlation was used to identify the toughness of correlation and the identification coefficient has been used to determine the changeability amount of the dependent variable Y in a linear equation. The averages related to Y value for 100 questionnaires were calculated and they were arranged due to their position in a range of numbers between 1 and 5. This will result in the acceptance or rejection of the main hypothesis. Then, many tables and figures and statistical data related to the questions were extracted and coefficient correlation and identification coefficient and also regression analysis were carried out with the help of SPSS software. By using this software, we also studied the results of t-test by using "regression analysis" table in order to prove that there is a meaningful relationship between each one of the independent and dependent Y variables.

**Table 1.** Obstacles in applying target costing.

Target costing system obstacles	Very low	low	average	high	Very high
Determining a competitive price is impossible	3	14	48	30	5
Customer satisfaction is not common	6	7	53	32	2
There is no spirit of group work	3	0	68	21	8
Activity based costing system is not used	4	9	63	23	1
Value engineering is not used	8	17	32	38	5

**Table 2.** Regression analysis test's main results.

Hypotheses	Target costing system obstacles	Not-standardized coefficient	Criterion error	Standardized coefficient	t	Sig.
		<b>1.144</b>	<b>0.194</b>	<b>—</b>	<b>5.914</b>	<b>0.000</b>
1	The impossibility of determining a competitive price	0.111	0.058	0.189	1.901	0.060
2	The unpopularity of customer satisfaction	0.154	0.059	0.254	2.605	0.011
3	The lack of group work spirit	0.208	0.056	0.309	3.217	0.002
4	The lack of activity based costing system	0.156	0.069	0.223	2.267	0.026
5	The lack of value engineering	0.100	0.048	0.205	2.205	0.041

## RESEARCH DATA

Table 1 shows the data related to each factor under investigation.

### Analysing research hypotheses

First it should be noted that in order to test the 5 hypotheses, the meaningfulness of regression analysis test of the relationship between the two variables should be approved or rejected.

#### First hypothesis

One of the obstacles of applying target costing system in firms accepted in Tehran Stock Exchange is the impossibility of determining a competitive price (There is a meaningful relationship between the impossibility of determining a competitive price and target costing).

Table 2 shows the results of this hypothesis by the help of T-Student test. As it can be observed, the statistical amount of the test equals  $t = 1.901$  and since  $\text{Sig} < \alpha$ ,  $H_0$  is rejected and  $H_1$  is approved. Thus, we can say that there is a meaningful relationship between target costing and the impossibility of determining a competitive price. And the impossibility of determining a competitive price is one of the obstacles in applying target costing system.

#### Second hypothesis

One of the obstacles of applying target costing system in

firms accepted in Tehran Stock Exchange is that customer satisfaction is not common (there is a meaningful relationship between target costing system and unpopularity of customer satisfaction).

Table 2 shows the results of this hypothesis by the help of T-Student test. As it can be observed, the statistical amount of the test equals  $t = 2.605$  and since  $\text{Sig} < \alpha$ ,  $H_0$  is rejected and  $H_1$  is approved. Thus, we can say that there is a meaningful relationship between target costing and unpopularity of customer satisfaction. And unpopularity of customer satisfaction is one of the obstacles in applying target costing system.

#### Third hypothesis

One of the obstacles of applying target costing system in firms accepted in Tehran Stock Exchange is that there is no spirit of group work (there is a meaningful relationship between the lack of group work spirit and target costing system).

Table 2 shows the results of this hypothesis by the help of T-Student test. As it can be observed, the statistical amount of the test equals  $t = 3.217$  and since  $\text{Sig} < \alpha$ ,  $H_0$  is rejected and  $H_1$  is approved. Thus, we can say that there is a meaningful relationship between target costing and lack of group work spirit. And the lack of group work spirit is one of the obstacles in applying target costing system.

#### Fourth hypothesis

One of the obstacles of applying target costing system in

firms accepted in Tehran Stock Exchange is that activity based costing system is not used (there is a meaningful relationship between the lack of activity based costing system and target costing system)

Table 2 shows the results of this hypothesis by the help of T-Student test. As it can be observed, the statistical amount of the test equals  $t = 2.267$  and since  $\text{Sig} < \alpha$ ,  $H_0$  is rejected and  $H_1$  is approved. Thus, we can say that there is a meaningful relationship between target costing and the lack of activity based costing system. And the lack of activity based costing system is one of the obstacles in applying target costing system.

### ***Fifth hypothesis***

One of the obstacles of applying target costing system in firms accepted in Tehran Stock Exchange is that value engineering is not used (there is a meaningful relationship between the lack of value engineering and target costing system).

Table 2 shows the results of this hypothesis by the help of T-Student test. As it can be observed, the statistical amount of the test equals  $t = 2.205$  and since  $\text{Sig} < \alpha$ ,  $H_0$  is rejected and  $H_1$  is approved. Thus, we can say that there is a meaningful relationship between target costing and the lack of value engineering. And the lack of value engineering is one of the obstacles in applying target costing system.

### **Conclusions**

As the discussions about World Trade Organization is increasingly considered by the scholars and different countries are gradually joining this organization, the need to pay more attentions to the novel costing management techniques is felt more and more. Nowadays, target costing is widely used in different industries of various countries in the world.

Target costing mechanisms are used in a competitive atmosphere and the presence of a competitive market seems to be necessary in order to gain prices to achieve the costs and the goal profits. In the present situation since economic fluctuations are dominant in societies, it is very difficult to determine the expected price.

The economic condition in Iran is in a stage in which we can not plan for the products we are thinking to produce in the future. There are many variables which affect our estimations. These fluctuations are so frequent that even in the presence of a competitive market, we can not foretell the price of the product which is due to be manufactured in the future. Also customers' satisfaction absorption is not common in economics in Iran and customers have a limited selection right. Also the lack of group work spirit and lack of appropriate cost systems are among other factors which prevent applying a

target costing system.

On the whole we can conclude that companies would not have any tendencies to use target costing system until the time when our country benefits from a monopoly market. And they will use this system only in competitive conditions in which they can continue their survival.

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