

## Target Cost Management and its Application in Iran's Industry

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### **Abstract**

The target costing management is a collection of methods and tools of efficient management like activity based on cost (ABC), value engineering, value cycle, Kaizen, life cycle of product that follows the purpose of decreasing cost products through design and production phase to produce customer's favorite product with desired price and ultimately distribute in the market. Several studies by Masters and PhD students in this field have been done show that the necessity of using these techniques in the organization has been felt in Iran in the recent years. Some organizations already used these techniques for achieving the above objectives and some of them have already achieved a moderate degree of successes. The current conditions of the world economic activity in the markets for commercial successes require high-quality products and services. In the new concept, the influence of these new techniques would have a great impact on the demand of customers.

**Keywords:** Target Costing, Methods of pricing, Customer Needs.

### **1- Introduction**

Cost management based on target or target costing system is a collection of methods and tools of efficient management that follows the purpose of decreasing cost products through design and production phase to produce customer's favorite product with desired price and ultimately distribute in the market (compare: Horvath, 1993, p. 17).

This method was considered after worldwide ware two, because severe lack of raw materials and then, under the title of value engineering,

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widespread attempt was done toward the decrease of production cost. The real evolution and application of this method is attributed to Japanese. Toyota automobile company used it at 60 decade as a reaction to the difficult market condition which was in the use of western powerful companies. After that the other famous Japanese companies such as Sony, Nissan, Matsushita and Olympus, and also out of Japan, other big companies like Mercedes Benz, Chrysler, Ford and Intel company, producing computer parts, tried to apply this method and attained great success in global market. This method is now being used greatly in Japanese companies while 100% of automobile manufacturing and more than 80% of electrical industries and machinery producers have used it in 1992 (Cooper and Slagmulder, 1997, p. 23).

The target costing process is a perfect program for the improvement of product features and cost decrease which necessitates the harmony among all things related to the product. This process helps us to increase the capability of product, by preservation and quality improvement toward customer's requests, and to decrease production cost by studying new production's life cycle and examination of all possible ideas in planning, prototyping and product construction phase ( Horvath,...1998, p. 17 ).

Target cost management is a perfect approach which tries to gain the most quality and functional values of product at the minimum possible price, by means of some methods and management instruments like activity based on cost (ABC), value engineering, value cycle, Kaizen, life cycle of product in order to secure profitability of firm in long term.

### **1- Pioneer Strategy of Cost, Distinguish of Product and Collision**

Available business guidelines or strategies basically can be separated and distinguished according to the direction of feature category or triple identity of one product (permanence triple), price or product cost, quality features of product and its functions. So we can categorize and evaluate company products into two areas. In fact, these 2 areas form the range between minimum and maximum of price level, qualitative and functional features and also are determines the kind of strategy used by companies. These are pioneer strategies of cost, product and collision.

The companies which are active in first area, supply productions and services with low price is low and owe comparative features of quality. The companies supplying these kinds of productions and services are using pioneering strategy of costs.

The second area is for productions which have high or great quality features and are overall, different from same productions. In these companies different strategy is used. These companies have to supply their productions with great quality and suitable price.

But what has happened in recent years is reduction of limitation and success relying on the different strategy. Now most of the customers demand production with high quality, superior function and lower prices. These conditions have unavoidably moved companies into another strategy named oppositeness or collision that originates from special features in current business atmosphere during present time.

## **2- Features dominated on business situation**

### **2-1- Competition**

Customers tend to attain goods with quality and low price within shortest possible time. In competitive market, preservation of one customer is accepted as a principal and the cost of customer preservation is much less than absorption of a new customer.

In current business world, more difficult competitive conditions result in more importance for subjects like qualitative features, price and time of delivery. The existence of tough competition in current market has enabled those producers to survive who can supply their productions with lowest price, best qualitative features within shortest time. However, these producers are not free of worry about competitor's success and win.

**Notice 1:** competition among some limited companies like insurance institutes is much more severe than perfect competition among large number of suppliers.

**Notice 2:** Competition is not limited to one commodity or service, but all goods and services can be in competition.

### **2- 2- Immediate Changes**

Technological changes and scientific improvements have had such acceleration and speed that we can see supply of new productions, new technologies to the market. Fortune magazine announces the list of best 500 companies every year. In comparison to previous 10 year list, many firms have been added to the market and a large number of them have lost their superiority. Thus one of the present features is accelerator speed that is if we

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are late, we will lose our market. Customers are exposed to advertising attack of companies and they can have better offers each moment. Nowadays organizations are trying to supply productions with suitable quality and price as soon as possible, otherwise they will lose they market in competition field. In modern marketing, fulfilling of customer demand comes to account as strategic direction of companies.

##### **2-3- Time**

By the increase of speed and technological improvements, production permanence has decreased and immediately a better production with higher quality and more suitable price is supplied to the market and if producers lose the market, their customers will respond to better suggestions. Nowadays, on the average, a production or technology becomes old every three years so it is necessary to design a new production. As there isn't much time to design new productions, so it is necessary to use each opportunity to respond customer's need.

##### **2-4- High Expectations**

Cause of severe competition in markets and business globalization, customers tend to productions with high quality, good functions and cheap price. Managers should always try to decrease costs by means of different techniques and this job has to be done not only without any quality decrease, but also with quality increase. Quality decrease or price increase can't play any role in target cost management, at all. Customers and consumers have become strict and they're willing to have the best production with the lowest price and within the shortest possible time. Strategic management of costs and its techniques, like trouble shooting cost target, presents strategies in order to enable organizations to manage their cost not only to remain in competition field, but also to have a powerful and authoritative existence. So it is necessary for organizations to design their cost management system again, by means of accounting management new approach.

### **3-Comparison between Traditional Methods of Pricing and Cost Searching Based on Target**

In traditional system of management and accounting, pricing and production phases and features are determined as below:

- 1- The start of production process is to design a production formed of production planning, initial design and design of details (the number of pieces, materials and time needed for collecting and installing them) and covering more than 80% of cost.
- 2- In this method, the attempt is to control created cost after production supply, while cost controls should have done before product, by using target costing method.
- 3- After production design and analysis, production cost is accounted and evaluated 7 refinanced and ultimately, the required materials will be purchased.
- 4- Thus, production cost have basically determined production price. The decrease of every kind of cost will be considered after the determination of production price, while in target costing method, allowed expenses and the price of competitive market will be the basis of price or finished price determination.
- 5- the question of qualitative and quantitative products and also the level of customer satisfaction, does not play an important role in design process of product.
- 6- Product pricing based on traditional method is done through this way: costs (permitted and unpermitted ) is determined and desired profit is added to it and ultimately, production price is accounted:

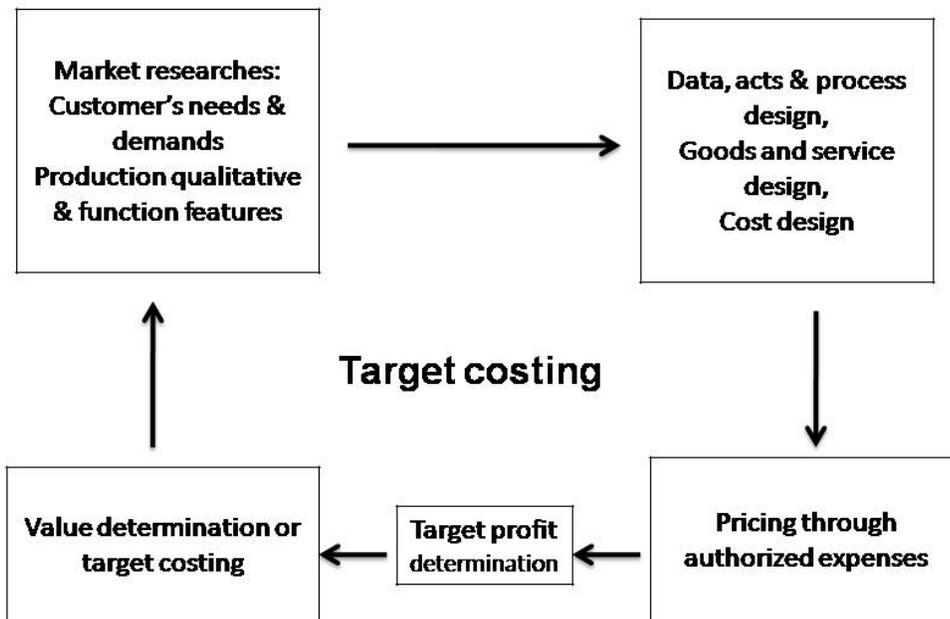
$$\text{Unit price} = \text{Unit profit} + \text{Unit cost}$$

This traditional pricing system used in most of companies, is called “cost plus”, which shows production price based on cost, adding some percentage of price as company profit.

The feature of this method is in its production process and company profit which is affected by management request and planning, but of no certain effect of customer in production features and process determination. Obviously, this pricing method, resulted of external system, has less ability and flexibility in competitive condition, dominating in business market.

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Below charts show the traditional pricing method and cost tracking:



**Compared to Traditional Approach of Cost Management and Innovative Approach of Cost Management**

<b>Traditional Approach of Cost Management</b>	<b>Innovative Approach of Cost Management</b>
Market prices as a part of planning for cost is not considered	Competition market price is considered in planning for cost
Costs are determined the prices	Prices are determined the costs
In order to reduce costs, waste and inefficiencies and production overhead will be due	Design, is an important factor to reduce the cost. Costs before the occurrence will be mentioned and controlled
Customer not involved in reduced costs and not considered to the needs level of customer satisfaction	Customer data is guidance to reduce costs
Suppliers of components and raw materials are involved after the design of product	Suppliers of components and raw materials are involved before the end of product design
Value chain in the plan costs is not used or useless	In the plan cost is used value chain

Pricing process based on target costs include:

1. Quality features, functions and all product features are determined by marketing researches.
2. In continuation of studies, in the first process, production design is done based on features of customer's demands.
3. In this process pricing of production cost is done (value engineering).
4. Finishing this process, desired profit of management will be determined for each production based on predetermined criteria and goals.
5. Finally, production cost which is formed based on allowed expenses (value engineering), is concluded, which forms pricing based on target costing.

As the above chart shows, marketing researches are the start point and the final goal of target costing is to design goods or services. So, price (and production features), are as an independent variable and its allowed expenses form variables of price function:

$$\text{Competitive price} = \text{Target profit} + \text{Target cost}$$

**4- Executive process of target costing**

We can divide executive process of target costing to some process and describe its basic points:

The start point of target costing begins by understanding the production process of one product and ends up in mass production. The basis of a three-stage process is:

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**First pace-** Identify customer demands and requests toward production supply according to features of customer demands and requests.

**Second pace-** to calculate target cost.

**Third pace-** To decrease the cost gap in order to reach target cost by means of management tools such as value engineering and continuous improvement environment.

### **4-1- Identification of customer needs and demands, production design with desired features**

Determination of customer needs and production features forms the start point of movement toward cost tracking and target pricing. Customer is going to satisfy his needs by means of functions and qualities of one production and so, perception of customer needs is an important matter toward determination of a price that the customer is willing to pay.

Thus, economic companies have to gather and process needed data through edition of suitable questionnaires and preparation of their respond in order to supply productions according to customer needs and features and also target costing.

Some of these questions are:

- 1- Which needs do exist and considering the feature or kind of production, can they be calculated or not?
- 2- Are there any other hidden needs in addition to proposed requirements?
- 3- How much money is the customer willing to pay for each of above needs?
- 4- Which one of the different production designs can cover above mentioned needs in the best way?
- 5- What is the best way to produce such a production that creates the maximum value for customer and also the minimum cost during production process?
- 6- It is clear that other marketing researches, such as data collection of competitive companies and production data, inside and outside of company, can be an effective help in recognizing customer needs and production features and also can help institutions in designing, developing, producing and delivering the new production.

One of the useful tools needed for designing and production improvement, based on customer needed features, is the design of “creation of quality function” or “qualitative house” that tries to register customer needs to production features, through some questions such as “what is”, and making a vital relationship with “how” questions, in order to remove needs, and ultimately to pass from mental pace to identical pace.

#### **4-2- To calculate target cost**

We can use 2 methods to calculate target cost:

1- Additive method

Deductive method

The starts point in additive method is the producer with an approach from inside to outside. This method is formed of three paces:

At first those kinds of production functions, which have creation value, are defined and chosen. In the next pace, costs of each function are calculated and in the third pace, costs of chosen functions add together and ultimately target cost price will be defined.

The start point in deductive method is the consumer with an approach from outside to inside.

This method is also formed of three paces:

In the first pace a target price is defined for desired production, considering to competitor’s price and consumer’s expected value. In the second pace operative target profit is defined for per unit of production. This pace is necessary, since investors or share holders and even external credit providers pay attention to the expected efficiency of their capital. So the definition of target operative profit for each unit of production becomes necessary and in the third pace, the price is calculated.

Target cost determination for each unit = Target operative profit for each unit - Target sale price for each unit

#### **4-3- The Decrease of Cost gap in Order to Reach Target Cost by Means of new Management Tools**

The third pace of target cost management or target costing is realization of idealistic digit of target cost.

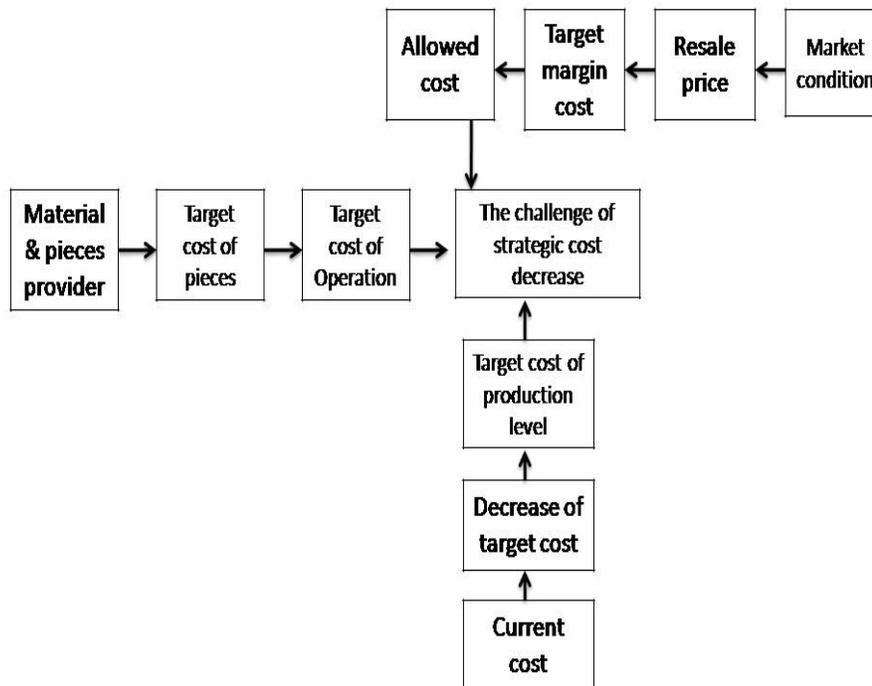
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In this pace we can use different methods such as value engineering and continuous improvement environment, which are described in new literature of organization and management.

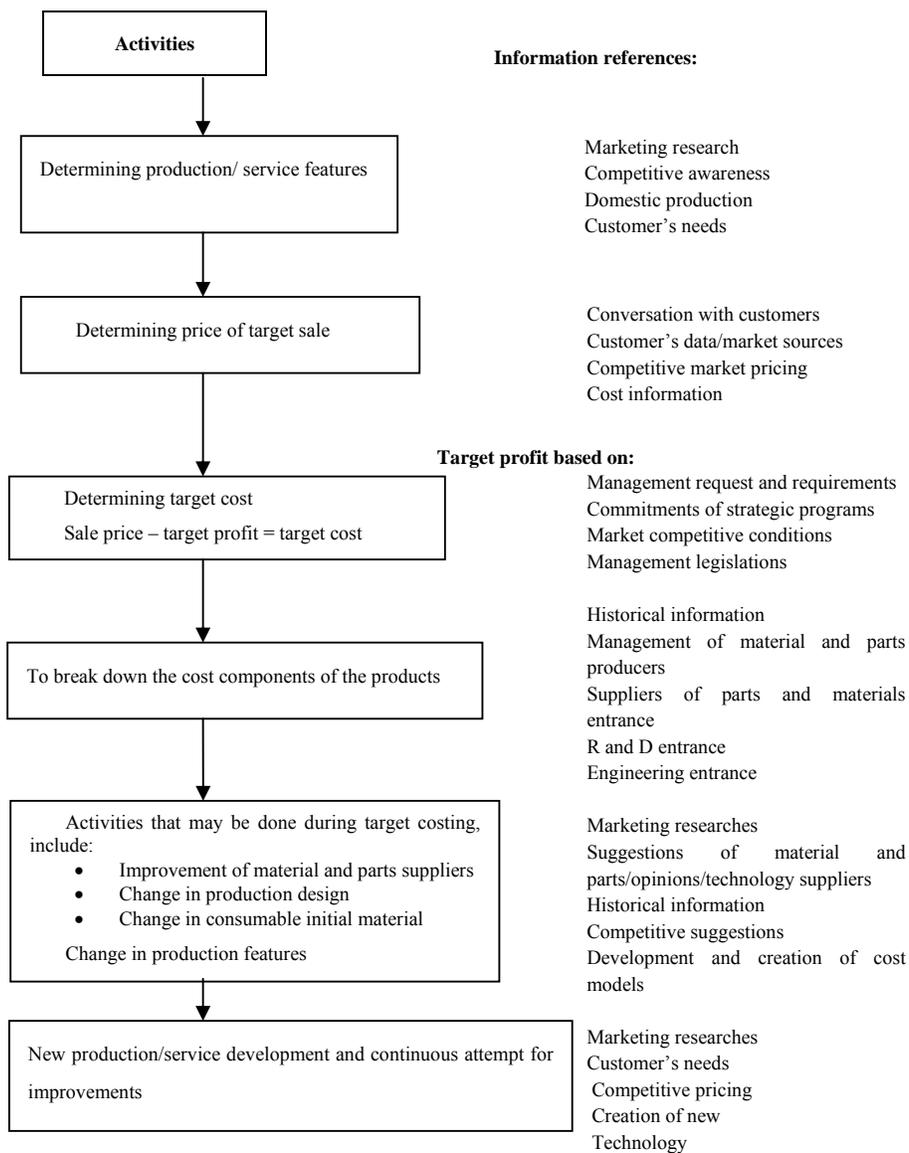
In this pace, it is necessary to calculate target cost and in the second pace target cost is studied and calculated again by means of having other related parts in view, such as design part or product, technical, engineering, provision part. New estimated price is usually more than target cost, calculates in the second pace.

The difference between estimated cost and target cost, idiomatically, is named cost Gap, and target means to decrease and ultimately remove the estimated gap by means of management tools such as value engineering.

**Chart: Target Costing Process and the Challenge of Strategic Cost Decrease**



In the following chart executive process of target costing is shown by more details:



**Chart: target costing process**

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### **5- Advantages, Necessities and Obstacles of Target cost Management Use in Iran**

#### **5-1 Advantages of Target Cost Management**

Target cost management and in other word, target costing has such advantages and benefits that originates from special approach of this method, meant the study of company management and operation (function, quality and production price) by looking from outside to inside and from consumer's perspective.

By effective and successful use of this method, institutions will have benefits and advantages written as below:

Managers are confident that they have used their time and energy to produce a production making their favorite profit and their desired efficiency.

Managers are confident that they have checked market available opportunities, systematically, and have produced a production based on sensible and logical decision which guarantees organization permanence and profit in long term.

Managers will succeed to produce a production with triple features, expected by customers, and being competitive with its rivals.

Managers will succeed to reach variable goals of company, specially efficiency and productivity increase of sources, and also to increase customers and shareholders satisfaction.

5- Managers and staff and working groups will have better satisfaction and perception of cooperation and partnership toward the occurrence of organization costing goals and production time, function and quality goals.

Ultimately, all of above mentioned advantages will be gained by centralizing the customers and identification and perception of customer's real needs, production based on needs and customer demand and finally, goal occurrence which is the attraction of customer satisfaction.

#### **5-2- Necessities and obstacles of the uses target cost management in Iran**

Done researches about target cost management use in Iran have emphasized on need and necessity of its use in Iran more than anything else. In a research titled "Effective factors on the necessity of target costing use in Iran automobile manufacturing industry" it is declared: According to

analyses done in automobile industry, nowadays customers are able to recognize few differences among price, quality and function. This shows 2 important matters: first, customers decide sensibly and intellectually. Second, customer is willing to have a production with better price, quality and function. If the percentage of gross profit to sale is high in one industry, using cost management method will have more justification. Above description and interpretation have examples in automobile industry around the world, and especially in our country automobile industry. The other important point which is necessary to be mentioned is the study of parts, forming automobile cost which are made in automobile manufacturing of country. According to researches' idea, about 80 to 85 percent of a production cost is determined in design phase. In target costing method, we're going to decrease finished cost and production costs by a change in the amount of materials and parts and production forming parts in order to preserve it according to target finished cost. This is important since the share of direct materials used in price combination is about 90%. Of course this matter has examples in other automobile manufacturing companies. So the sooner change in production design causes the sooner approach to cost decrease goals and also profit increase.

Considering very important advantages of target cost management in this global village, this system has a very little use in Iran. Barriers in using target tracking system in Iran can be generally summarized into 2 basic factors as mentioned below:

1- Basic lacks and deficiencies in terms of space and free competitive condition in economy, for example free and equal conditions for economic agents to enter and exit economic activities in the market prevents automatic optimize distribution of sources and production factors.

2- Necessary environmental conditions towards optimal economic guidance and planning and then implementing the extroversion competitive prices due to existence of various inconsistency, disturbances monopolies and possible access to various monopoly rents through lobbying and collision faces major deficiencies.

Generally, there is a principle that says; as long as the economy is stuck in collisions of exclusive markets and rental economy and lobbying, companies will have no attitude to use target costing because they can protect their benefits better and easier by easy access to various kinds of

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exclusive and rent seeking opportunities. But it is just in competitive condition and open space that companies are inevitable to use this system and other modern management tools in order to continue their permanence.

However the researches in Iran have pointed to other different factors such as lack of customer orientation, lack of team work and failure to use modern management tools, especially not benefiting from costing based on activity and not using value engineering as barrier to use target cost management which in fact originates from basic factors mentioned above.

But unfortunately substrates for adopting this system in Iran do not exist. With regard to Iran's economic situation and lack of stability and predictability of economic conditions in Iran, we can't plan to produce a new production which we tend to do in the near future (Ghafari Ashtiani, or. inventory. 1388. Pp. 268)

Nonetheless, more recognition in competitive and production condition in this global village and awareness of distances and structural and competitive conditions in Iran economy and global competitive economy is a necessary and useful way for managers and economic policy makers at all levels, especially for employers, entrepreneurs and managers of manufacturing organizations in Iran.

#### **Implementation of cost management techniques with the situation and present conditions in Iran**

All the tools and techniques discussed in previous section of article have been used by famous industry (Ford - Motorola-Toyota-Komatsu-Nissan, etc.) in developed countries But in according to the conditions of organizations in Iran, must be observed these techniques have the ability to run or not?

Organization to achieve goals such as reducing cost, increasing product quality, customer satisfaction, gain a greater share of domestic and foreign markets, continuous improvement in production, diversify products, reduce and eliminate waste in production, and improve the profitability needed to implement modern and effective management techniques.

Several studies by Masters and PhD students in this field has been done, shows that the necessity of using these techniques in the organization been

felt few year in Iran. Some organizations already use these tools to achieve the above objectives and also achieved successes

In the first step to achieving and implementing these techniques, which require knowledge management tools and techniques required to manage costs, to gain. In current conditions of world economic active in the market for commercial success requires high-quality products and service and in the new concept, its influence is the demands of customers with technical specifications and standards' this requires having knowledge of modern cost management techniques and their implementation in the organization.

### **Summary and Conclusions**

Provide information needed to manage costs, is not possible except with establishment of an advanced management accounting systems, including design and use of different accounting methods within the organization. Management accounting cannot be known as fixed and uniform set of rules but also the methods to achieve organizational goals, are improve decision making by managers and staffs.

Thus, accounting management should be adopted with the characteristic and needs of organization. And organizations must be matched with the change of environment. Organizations that fail adapt with the changing technology and global competition, in the long run will not be able to survive.

On the other hand, assessments and judgments on experiences in businesses, shows that without the establishment and operation of cost management system, actually achieving competitive advantage and improves business continuity and stability would not be possible. In the current competitive conditions, products and services should be produced according to the following essential considerations:

Compliance with performance requirements of customers, high quality, low cost and be marginalized.

Combining the above elements that are somewhat at odds with each other requires cost management in the organization. Today managing costs, has affected the minds of managers, organizations and businesses as mentioned in the text, cost management is a set of management measures to ensure customer satisfaction, combined with continued cost control and reduction

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(cost) does. It is important therefore, that the "cost reduction" should not lead to "low satisfaction" of clients.

Cost management, which involves the use of tools and techniques in the field of management accounting, has been developed and widely used in successful organizations these tools and techniques such as activity-based costing, target costing, costing kaizen, costing the entire product life cycle costing and quality.

Finally, integration of information systems and management methods of cost accounting purposes, growing trend to help reduce costs and increase profitability will follow.

In addition, new requirements, such as the WTO agreements, can be a strong reason for the use of methods of cost management.

So the issue of joining the world trade market, organizations is forced to walk out in the competitive environment and to continue its activities in such an atmosphere should take to implement new methods of cost management.

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