The Role of Total Quality Management Excellence Model in the Evolution of the Organizations and the Most Important Factor for Achieving Excellence in Quality and Productivity

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Abstract

at all times a lot of words are born in the field of quality and productivity, which some of them point out to the principles of this science and others only have advertising aspect for management consulting companies.

The goals of this research are introduction and explanation of advanced model for total quality management and also the first and the most important step in this route from the management experts' point of views and considering its role on strategic change and transformation of organization.

The method of performing this traversing article and library studies and also data collection tools is index card taking. Most of managers don't have enough knowledge about priority and delay and management systems and choose one of them for reaching to the highest quality and productivity in order to achieve final goals.

Finally, the results and information which are obtained from this research, will give standards and methods to organization, which are the outcomes of the big Asian companies experiences that have passed world oil crisis and financial crisis safely have continued their growth during these two crisis.

Keywords: total quality management change management quality and productivity systems, strategic change and transformation, just in time production financial crisis proposal system.

Introduction

Rapid change and intense competition are resulted in increasing pressure on organizations for improving skills, capabilities and the quality of the products and are became as service performance improvement tools. The rules of organizational total quality management, improvement of organizations nature and the way of how to face with special challenges of markets are publicly accepted. Also, recognizing and deleting all activities which don't have added value and increasing added value of other activities from initial materials preparation stage to production and finally selling, are the end goal of all quality and productivity promotion systems including just in time production, zero defect production, lean organizations have lost the main tools to achieve this goal and they don’t get any results.

To perform just in time production, these stocks are deleted step by step, so the inefficiency of different sections will be appeared and different units will improve their performance. But, if all sections of organization don’t struggle to eliminate these inefficiencies and to improve affairs, the eliminations of stocks not only doesn't have any benefit but also will create many problems.

The fact is that by means of systematic nature of organization and components interaction with each other, demand and cooperation of all zero (lead time) components, zero preparations time, transportation and zero provision time of organization are necessary affairs, not only for archiving just in time production respect of quality and productivity improvement such as approaching duplication and wastes. Asian financial crisis, which resulted in beginning of a chain
movement in the middle of 1997, has affected almost all Asian countries. This crisis and the changes which are created have various instruction for improving economical and developmental situation different organizations and industries of Asian countries which have resulted in extensive changes on structure of these organization. These changes had vital effect on motion of total quality management. The principals of total quality management are accepted throughout the world as a tool for improving organizational performance, improving the natures of organizations and the ways of how to face with special challenges of markets.

What is the main tool for achieving the highest quality and productivity?

Perhaps this question has arisen for most of clever and thoughtful managers that what is the main core for Toyota production system, which is the most effective production system in the recent decades, a production system that a lot of new conception in respect of quality and productivity, Kanab, total quality management (TQM) such as just in time production (JIT), mistake proofing, lean production, zero defect production have born from it?

Doctor Shigeo Shingo, who is a valuable person in Changing company to modern superior Toyota, at the beginning of chapter five in Toyota production management system book, which is a reference book in the field of lean production and just in time production propounds this important question that what is the "Toyota production system"? he answers: "when this question arises, 80 percent of people says: "it is kanban system. 15 percent of them by knowing its function may say: "it is a production system for deleting all unnecessary and excessive cases". Some people thinks that Toyota has a collection of beautiful clothes, so they try to buy and wear clothes. They find as soon as possible that they are fatter than usual to wear such a cloth! Before kanban can has a benefit for them, they should be able to delete unnecessary cases and to provide basic improvements on their production system. Eighty percent of Toyota production system is formed by deleting redundancies, fifteen percent of it is formed by production system and only five percent of it is formed by kanban. But the only way for deleting redundancies in order to have a productive and high-quality system on production, is continued improvement by cooperation of all staff. This fact is clearly obvious in Rubinson's and shredder’s explanations (2004) about performing just in time production in Toyota: "by aim of just in time production, organization had to consider to common details and also managers couldn’t give a solution to all big and small problems of organization. So, the organization had to take help from all staffs in production line and finally a very active system for making idea was created.

According to chang (1996), continued improvement is an inseparable part of just in time production concept and in order to be effective is should be accepted by all members of the organization, not just by people who are involved directly in production processes. Regarding production, Boudek (2006) lean says: "the most important challenge that organization will be faced with it in order to become a lean organization is to create continued improvement habit among employees.

Regarding total quality management, Patel (2005) says:"the world total has a different meaning in total quality management and it means involvement of all people in organization, from managing director to the lowest degree employee.

In fact in this world that there is a server and rigid competition among companies, and the distance among them become less and less, permanent improvement has turned in to a vital matter. This means that one key and basic characteristics of our business should be permanent and continued improvement (Heriyot and Stickland, 1997).
In this period, continued improvement has turned in to a necessary matter in all aspect of business for over coming the challenges which are resulted from turbulent trade environment (Bessant and Kafni, 1997).

But unfortunately, a few companies have understood the power resulted from having employee who always thinks about improvement of works (Mieler john, 2003).

To attract cooperation and participation with employees

Do you know a manager who doesn't want his/her employee to explore faults and defects of their organization's affair and to give a solution for them in their minds and thoughts in all situation such as at work palace, at home, behind the work table and behind the steering wheel of the car? Which manager doesn't want his/her organization by their sharp eyes? Do you know this manager's dream how will be fulfilled? Surely, to fulfill this dream, the existence of proportional structure and system will be required before anything else. The system and structure which provide enough motivation and anxiousness for employee in this regard, as will be explained later.

System of suggestions is a first step in the route of changing. This system is a management system that its considerable influence on different aspects of the organization, including job satisfaction, organizational commitment, employee's productivity, also quality and profitability improvements of the companies, has been confirmed exactly and in various researches.

The system of suggestions will be resulted in increased job satisfaction and the feeling of dependence and closeness between employees and organization by providing an opportunity for meeting the needs of the employees with respect, finding themselves, freedom of expression and equality, and paying more attention to employee's problems and decreasing their job problems by executing suggestions and also by giving material reward and high respects to them. The outcome of this closeness feeling will be employee's mutual efforts for solving problems of their organization.

The witness of this statement is various university researches which confirm the positive influence of suggestions system on employee's job satisfaction.

For example, Habibi's research(2004) shows that there is a meaningful positive relationship between system of offers and job satisfaction of employees and also motivation of employees in the domain of inspection and supervision organization on prices and distribution of goods and services. Also in Karimi's researches (1999) on regional electricity company of Fars, there is a meaningful and positive relationship between implementation of system of offers and job satisfaction of employees.

Strategic Change and Transformation in Quality Management

Changes and transformation are not always lead to success. In fact, in organizations if changes are not conducted properly, it is like the titanic them that tries to prevent a collision with the Ice Mountains, but the final result is disastrous.

In other word, if changes and transformations are not conducted and are not organized effectively, the best choice is: the best change is that we don’t have any changes. For example, many marine engineers believe that if titanic had fender for Ice Mountains by an appropriate design in her front, it couldn't be drowned.

Mr.RKner Juan in his conference on 1995 has predicted the future of the matter as following:
By entering to multi-national and social markets, the competition on quality will be very intensive.
There will be great demand for suppliers.
ISO 9000 will take over the world.
Granting award like baldrige, Europe quality award, will be resulted in simulating and companies and this will increase quality all over the world.

Juan's prediction come true and will last two years. ISO has expanded like an explosion throughout the world and has become a known fact.
If we consider 1990 as the base year, the numbers of registered companies which have used quality standard have had 100 percent growth every year. In late 1997, in a survey which was conducted by mobile company, it was found that around 200,000 companies have received ISO 9000 all over the world. Some of this companies such as, British Telecom, have tens of thousands employees (Samuel K.M.HO., 1999).

Europe quality certificates and American quality certification are very strong models. if your country isn’t belong to the mentioned countries or doesn't have any relationship with them, you can choose one of these models as a total quality management system for your organization.

Or you can use total quality management system of your country. Most probably the kind of system that you apply is related to geographical situation of your company or origin of your company. Therefore, the system that you choose is more appropriate and MBNQA Type.

Both EQA and MBNQA models are comparable in terms of scoring and over 500 cases of 1000 scores have the same grade. Probably the determining factor in final decision is geographical location of the organization which determines the type of the quality standard. After the noteworthy was selected, it is time to provide necessary equipments for implementing the quality model in organization (Samuel K.M.HO., 1999).

Self-assessment models of ISO 9000 tell organizations that what they want to do. They also have this ability to tell people that what kind of performance they should have, how to perform it and how to support it. So, to achieve the mentioned quality methods, a proven model is necessary.

**Advanced Model of Total Quality of Management**

to have a comprehensive and systematic approach for implementing quality management, we must first develop a conceptual model. This model should be simple, logical and comprehensive. This model should be able to handle and use in highly variable conditions of new sectors.

The advanced total quality management model uses an integrated approach to support total total quality management system. This management system is in fact a continuous improvement process which commits organization to manage itself based on quality. Most people who have used this method is suitable not only for aesthetic and physical improvement of work environment, but also its usage for improving the processes of the organization will be very useful.

Re-engineering of business and organizational processes (BPR)
hammer and champy are defined re engineering as following: Re-thinking about the foundation and structure of the organization, redesigning the processes of the organization fundamentally to achieve tangible and significant improvements which are done critically and simultaneously by operations of company such as cost, quality, service and speed of performance.
In fact, Re-engineering forces managers to have a look at the traditional and old processes, and it obligates them to pay attention to the customers. Many leader and mother companies in the world have achieve their present status by using re-engineering techniques, have obtained considerable conclusions including:
to improve customer relations;
to reduce the life cycle of the market and marketing;
to increase the ability of the company;
to reduce defects and imperfections;
to increase the profitability of the company.

In fact, re-engineering uses a series of known and specific techniques to improve organizational outcomes and to make efficient the traditional structure of the organization. This techniques different methods such as, exact definition of working process, its exact measurement and re-engineering in organizational defense to improve customer's satisfaction and other various methods.

**Quality Control Cycle (QCC)**

Quality Control Cycle is a small group of individuals and organizational employees that are working together, in order to help cases like improving the performance of the organization, respect for individuals and employees, establishing work groups with high spirits by developing and improving limitless potential of members of the group.

The Japanese have experienced that about 95% of Quality problems can be fully resolved in many organization through simple quality control methods, such as seven QC tools.

These seven tools are:
- Examples of pare to;
- Examples of cause and effect;
- Information rating;
- data sheet;
- histogram;
- the scatter plot;
- control tables and charts

These tools help to quality control circle to hold brain storming sessions systematically and to analyze current issues critically and more quickly.

**ISO 9000**

ISO 9000 family and group consist of seven different type of standards. Except these seven standards, the standards which are important and noteworthy are: ISO 9001, ISO 9002, and ISO 9003.

In fact, about 99% of registered ISOs in corporates are ISO 9001, ISO 9002.

The remaining fourteen standards are only helpers and indicators. Therefore, the purpose of this article is to overview ISO 9001 extensively.

ISO 9001 is a quality system model for assuring quality in design, development, production, installation and service. This standard is a quite comprehensive model in quality systems provided by ISO.

**Lean Production Maintenance**

In 1972, the Japanese repair and maintenance body of the company defined this technique as a unit of repair and maintenance. In fact, this system ensures that all equipment and facilities in very part of the organization, such as designing, manufacturing, constructing and maintaining, will work properly in their consumable life.
Since the goal of this technique is to raise productivity of the equipments, the TPM is known as lean production management (Sengu, 1992).

**Conclusions**

Continuous improvement in all aspects of the organization is the key to achieve high quality and productivity. This is not possible without participation of all employees. The most effective known system to engage employees and other related individuals for participating and cooperation with organization is "system of offers" that by proper implementation of it, the first and the most important step has been lifted on the road of achieving high quality and productivity systems. Without it, the high quality and productivity will not have any meaning. Also in this paper, the concepts of total quality management were reviewed in order to achieve appropriate approach for improving and developing business processes.

The concept of total quality management requires the integration of systems and techniques which are using in quality.

Based on the experiences gained from the implementation of a total quality management in Japanese companies, we concluded that to implement total quality management, a step by step process is necessary.

Both theoretical backgrounds, i.e. personal experiences and the results of these studies, confirm that for implementing total quality management, we need to implement re-engineering systems, quality control circle, ISO 9000 and lean production management which is called advanced total quality management model.
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