ELEMENTS OF TOTAL QUALITY MANAGEMENT:  
AN EMPIRICAL STUDY

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Abstract

The aim of this study includes an overview of the elements that are stated in total quality management. Total quality management can be evaluated in history of quality concept. Thereon, the first topic of the study includes information about quality in general. Total quality management has several elements. The elements of total quality management contributes to perspective of total quality management. Moreover, the second topic of the study includes the elements of total quality management in details. Conclusion has take place in related topic consequently.

Key Words: Total Quality Management, Elements of Total Quality Management, quality, quality assurance and total quality management since the beginning of mankind (Erkan, Uçok, Tosun, 2008: 90).

1. Introduction

In this chapter, definition of the quality is given and the total quality management is emphasized in historical view.

1.1. Quality

Deming defines the quality as aiming at the needs of the customer, at present and the future. According to Juran, quality is fitness for use or purpose. Broh describes it as the level of excellence at an acceptable price (Janakiraman&Gopal, 2006: 2). Crosby relates quality to conformity on requirements (Efil, 2010: 8).

As is clear from above definitions, quality is a concept implying the organization’s products having an acceptable price and a particular level of excellence, thus matching of those products for the use and conformity on requirements, targeting customer’s present and possible future needs.

1.2. History of Quality

Quality concept, associated with a request of consistent investigation of better and excellent, is discussed in the framework of the historical development of inspection, quality control,
Quality control departments took on the responsibility for the task of separation of finished goods. In other words, separation between good and poor quality, namely usability control began to be held by quality control departments. After the First World War, with the increasing production volume by mass production and product variety, the necessity of use of mathematical methods in quality control and utilization of statistical quality control techniques with Shewhart's studies. These developments led to the publication of first quality control books in United States and England. During the years of the Second World War, quality control methods are improved to try to reduce the inspection costs. However, the necessity to assure a production system that no inspection would be needed is arised. Integration of quality assurance with the involvement of top leadership and employees and with the customer satisfaction brought the rise of total quality management (Şimşek, 2007: 16-18).

Total Quality Management is defined as an approach that covers entire of an organization towards the quality. Furthermore, enhancements and continuous improvement by all the employees of entire organization is present in Total Quality Management approach (Ersoy & Ersoy, 2011: 7).

2. Elements of Total Quality Management

In this section, elements of total quality management will be classified and explained in the light of prior studies held on total quality management.

As presented by İlğan et al., principles of total quality management is listed as leadership, change and innovation, continual improvement (kaizen), organizational culture, customer focus, participation of management, zero defects mentality, quality circles and education (İlğan, Erdem, Taştan, Memduhoğlu: 75-78).

Şimşek groups the elements of total quality management in five items as top management leadership, customer focus, team work, continuous development and improvement (kaizen) and business employee training. All these elements are considered as parts forming a whole by complementing each other and can not be considered separately from each other (Şimşek, 2007: 134).

As a result above explanations, it is possible to line up elements of total quality management as top management leadership, customer focus, team work, quality circles, continuous development and improvement, business employee involvement and training, change and innovation, organizational culture and zero defects.

2.1. Leadership of Top Management

In the late 1980s, as it is understood that competition and quality leadership couldn’t be achieved with the methods and techniques by management; when the subject of implementation of lessons learned, i.e. benefiting from sample models, became visible, it can be said that total quality management as a coordinating definition is in use at all levels and in all functions of organization (Çetin, 2010: 356). The most important reason for the failure on quality is the lack of necessary support of top management for the total quality management implementations (Erturgut, 2012: 146).

2.2. Customer Focus

Customers play a role in the achievement of economic objectives such as profitability and growth of businesses. To achieve the economic objectives, enterprises should search profitable customers, gather information about them and analyze this data. To provide this, focus on business processes, management processes and basic processes such as marketing and human resources are required (Demirel, 2006; Doğan & Kılıç, 2008: 9-10). Total quality approach is a set of activities based on the establishment of cooperation in business functions that aim to ensure and improve the quality of products to meet the needs and expectations of internal and external customers (Aktepe, Baş, Tolon, 2009: 32).
2.3. Team Work

Team work in total quality management is defined for definite objectives as; focusing of each employee’s on all levels of organization both in "thinking" and the "application" of these ideas instead of subordinates’ agreeing and applying the ideas of superiors directly (Uryan, 2002).

2.4. Quality Circles

Quality circles, according to Japanese Union of Scientist and Engineers (JUSO), are the groups of volunteers of 3-10 persons, working in the same department and meeting at certain times, discussing solutions related to departments regarding quality, manufacturing processes and various problem issues (Kobu, 2010:567).

2.5. Continuous Development and Improvement

Kaizen, in Japanese, formed by the combination of the words "kai" which means change and "zen" which is means good (Haftaci, 2010: 213). Deming describes the phases of the continuous development process, with the loop known under his name. Deming Cycle, incudes planning, implementation & construction, evaluation & auditing and action & correction stages (Çetin, Akın, Erol, 2001: 481).

2.6. Employee Involvement and Training

Employee participation is realized in various ways. One of them can be considered as the provison of participation of the employees on management with quality circles (İğan, Erdem, Taştan, Memduhoğlu: 78). In a different viewpoint, when the involvement of employees is concerned, the concept of empowerment is mentioned. Employee empowerment, is considered as a more advanced form of employee involvement. In the first stage, the staff who are in direct contact with the customer are authorised on identification of customer needs, respecting and dealing with them by encouraging, authorising and putting them in charge. In other words, the employees' knowledge, skill, competence and apetite to act in decision within certain limits defines the staff augmentation (Çetin, 2010: 115).

2.7. Change and Innovation

“Change is unavoidable”. Especially in recent years, together with the economic, social, technological and legal changes, change has taken place in all businesses regardless of sector and size. The change lived maintains its contintuity. Besides, the change starts with people. People, within their creativity and knowledge, performs the changes in organizations (Baruğuzgil, 2004: 155-156).

In accordance with Turkish Language Institution (TDK), making new changes is defined as innovation. Innovation, as defined in the Oslo Manual, is the implementation of new or considerably improved products, processes, new marketing methods or new organizational methods, use of them in workplace organizations or external relations. In this sense, innovation can be associated with product, process, organizational methods or organizational management (Yavuz, 2010: 145).

2.8. Organizational Culture

Culture differentiates according to risk taking of different organizations, attitudes on employees, rules and regulations, team work, views on conflict and criticism issues and reward systems. Furthermore, the resources of these factors also differ (Williams, 2003: 246).

Griffin defines the organizational culture as a set of values beliefs and symbols that guide behavior. Consequently, innovation can be supported with a strong culture that is founded in correct way and is focused in the organization (Griffin, 2003: 203). In a similar way, Hofstede defines the organizational culture as shared values and beliefs by members of the organization. With these values and beliefs, it is manifested towards the means used to achieve them (Tata&Prasad, 1998: 704).

Factors constituting the culture are listed as use
of initiatives, risk appetite, goal definition, cross-departmental working (work of departments together), self-definition styles of employees, reward systems, promotion administration, communication realization (Alkış&Temizkan, 2010: 75-76).

For a purpose oriented managing of the quality in an organization, employees and managers within the organization have to act in accordance with the interests of the organization. Besides, studies should be directed on resource utilization relevant to the products (Akdağ, 2005: 161).

2.9. Zero Defects

Activities carried out to achieve zero defect in quality is divided into three categories. First of these is the zero defect assurance activities defined as quality assurance systems established to supply defect-free products to customers. The other two are zero defect prevention activities to prevent recurrence of quality problems that businesses faced and small zero defect activities. Small zero defect activities are the separation of quality problems encountered in businesses to finer fragments. From this point of view, employees participate in the solution of problems in these finer fragments (Online; İlğan, Erdem, Taştan, Memduhoğlu: 78).

Zero defect is not only meant to be the final products to be purified as free of defects. Eventually, zero defect approach should be implemented at every stage (planning, design, production, management, etc.) of the products (Kıngr, 2013: 98).

3. Conclusion

Within the framework of competition, organizations should raise the level of quality, be focused on customer satisfaction and reduce the costs to survive. Here, Total Quality Management is meant as such (Paksoy, 2002: 1).

References


7. (Online), http://www.kalitesitesi.8m.com.


