A history of total quality management

Total quality management is the integration of all functions and processes within an organization in order to achieve continuous improvement of the quality of products and service. Deming defined quality as a " never ending cycle of continuous improvement"(Allotey, 2003, p. 7), Juran defined it as fitness for use (purpose) (Estafanous, Barash, & Reves, 2001, p. 951). Bearing in mind that TQM is a long term improvement process which requires significant resources. It is also important to realize that TQM is a dynamic process not a static process that is based upon continuous efforts to improve quality. Since there are no deadlines or targets to be met then TQM can never be considered complete which makes it to become a way of life. (Mehra & Ranganathan, 2008)

During the early years of manufacturing, inspection was used as a tool to decide if a worker's job or a product met its requirements. In fact, at that time inspection was not done in a systematic way, yet it worked well when the volume of production was low. However, as organizations became larger and more complicated the need for more effective operations became obvious. (Montogomery, 2001, p. 9)

In the early 1900s, " The Father of Scientific Management" Frederick W. Taylor helped to satisfy this need. He proposed a framework for the effective use of people in industrial organizations through his book ' The Principles of Scientific Management' which was republished yet again in 2008. One of his concepts was clearly defined tasks performed under standard conditions. Inspection was one of these tasks and was intended to ensure that no faulty product left the workshop or the factory, it also focuses on the product and detection of problem in the product, and testing every item to ensure that

the product match as the requirements or specifications. This process is carried out at the end of the production process and requires specially trained inspectors. The need to performing this process was the reason that led to the emergence of a separate inspection department which resulted in the emergence of defect prevention concept which led to quality control. (Webb & Gorman, 2006, P. 32) & (Montogomery, 2001)

The roots of Total Quality Management can be traced back to the 1920s when Dr W. Shewhart developed the application of statistical methods for the management of quality. He demonstrated that variation in the production process leads to the variation in the product, thus by eliminating the variation of the process a good standard of end product can be achieved. The theory of Statistical Quality Control focuses on the product and detection and control of quality problems that involves testing samples and statistically inferring compliance of all products. This process is carried out throughout the production process and requires trained production people as well as quality control professionals. Towards the end of 1920s the theory was further developed by Dodge, and Romig who developed statistically based acceptance sampling as an alternative to 100% inspection (Webb & Gorman, 2006, P. 32) & (Montogomery, 2001).

In 1940s, the quality guru Deming with his peer co-workers Juran and Feigenbaum continued with the improvement of the theory. However, instead of focusing just on quality of products the concept rapidly widened to evolve quality of all issues within an organization i. e. Total Quality Management. (Webb & Gorman, 2006, P. 32)

During the 1950s, many Japanese products were low quality and viewed by the world as junk products. Industrial leaders in Japan recognized this problem and decided to produce high quality products. In fact, Japanese might have not been able to achieve the aim of high quality products unless they had had the help of quality gurus such as Deming, Juran, and Feigenbaum (Soin, 1999, p. 1). Deming suggested that this aim could be achieved within just five years. As a matter of fact not many Japanese believed what Deming claimed. However, they followed his suggestion in order not to lose face and because they respected him (Deming, 1995, p. 139).

In the late 1950s, quality control management developed rapidly and became the main theme of Japanese management. Interestingly, the idea did not stop at the management level. In the early 60s the concept of the quality control circle was first introduced in Japan by K. Ishikawa (Montogomery, 2001, p. 10). A quality circle is a group of workers who meet and discuss issues to improve all aspects of workplace and make presentations to management with their ideas for improvement. In this way workers were motivated because they felt that they were involved and listened to (Cole, 1979, p. 135). Another advantage was the idea of improving not only the quality of product but also all aspects of organizational issues, which probably was the start of Total Quality. The term Total Quality was first used by Feigenbaum at the first international quality control conference in Tokyo in 1969. (Stephens & Juran, 2004, p. 77)

During the 80s and 90s a new phase of management and quality control began, which became known as Total Quality Management (TQM). Zairi et al

(1994) defined TQM as a " license to practise". Although there are many other different definitions for TQM yet the concept is still the same. Nowadays, TQM may be called Business Excellence and has a more clearly defined approach (Montogomery, 2001, p. 10).

Quality movement in Saudi Arabia:

Total Quality Management has caught the attention of organizations worldwide ever since its tremendous success in Japan. The term TQM (Total Quality Management) is a management technique in which customer satisfaction is given the prime importance, and the deliverables are made highly acceptable not just through Quality Control techniques but by focussing on the process, encouraging employees to pursue quality and reducing the cost of production. And just like other countries who wish to be world class, organizations in Saudi Arabia are also trying hard to keep up to pace by implementing TQM widely throughout the country. (Al-Sulimani, 1995)

In 1973 Saudi Arabia established the Saudi Arabian Standards Organization (SASO), an independent organization concerned with implementation of standards, on the local and international levels. It is also responsible for overseeing quality aspects of locally produced products. SASO developed over time and became the most important Saudi organization concerned with formulating and approving national standards for all commodities and products as well as standards for other quality aspects such as metrology, calibration, marking and identification, methods of sampling, inspection and testing. In addition to this it is also responsible for setting the rules for

granting certificates of conformity and quality marks and regulation of their issuance and use.

During the early 90s the growth of the quality movement in Saudi enlarged and the first non-profit organization (NPO) in the form of " Saudi Arabian Quality Council" in the Eastern Province was established and was sponsored by Saudi Aramco. In 1994, with the increasing awareness of the importance of Total Quality Management as a powerful tool for improving the work culture Saudi Quality Council (SQC) established its branch in the Western Region of the country with only 4 members however this organization was later transformed into an independent organization that is operating under the sponsorship of Engineering Committee.

In the year 2000, this society was renamed to become known as SQC (WR). The mission of this non-profit, nongovernmental society which has operated in the Western Region of Saudi Arabia over 15 years so far is to advance individual and organizational performance excellence through providing opportunities for learning, quality improvement, and knowledge sharing. SQC (WR) started its actions by executing a SWOT (Strength, Weaknesses, Opportunities, and Threats) analysis of the status of quality in the kingdom of Saudi Arabia. The results of the analysis were then utilized to set up long term goals such as making quality a part of Saudi corporate Culture as well as setting short term goals for SQC (WR).

King Abdulaziz Quality Award (KAQA):

Since its establishment SQC (WR) has managed to organize 150 meetings with a quality theme and has had the participation of over than 7000 quality

experts and more than 1700 members from different walks of life in its activities with Healthcare, Education, Construction and Engineering and Business Excellence Interest Groups. SQC (WR) also contributed in establishing and formulating the King Abdulaziz Quality Award (KAQA), a prestigious National Quality Award in Saudi Arabia that intends to maximize quality, efficiency and productivity in different sectors within the kingdom (Al-Amri, 2010).

The award was approved in the year 2000 and has the objectives of:

Increasing awareness of quality and the importance of its application.

Motivating and gently pushing public as well as private sectors to adopt and apply the principles of (TQM).

Increasing the quality in the production and services sectors to enhance their competitiveness in the global markets

Improving organizational leadership to achieve the total quality management objectives and fulfil their responsibilities

Ensuring Continuous improvement in the performance of all production and services processes

Encouraging organizations commitments' to national and international standards

Awarding organizations which achieve the highest level of quality

Increasing organizations participation in building and serving the society

Building strong relationships with customers, employees, suppliers, and investors to satisfy them and gain their loyalty by applying the best methodology that help determine and deliver their requirements needs and expectations.

Establishing a database for the King Abdul Aziz Quality Award

Adopting quality strategic planning in order to set business plans and objectives and methods for implementation

Training and developing the national workforce and creating a better work environment and improving the efficiency and technical skills of employees to enhance quality

Making use of all available national resources to support operational and economic performance on the organizational level and on the national level

Measuring performance level in different business areas and comparing it with the performance level of competitors and measuring results improvement

Communicating the leading Saudi experiences in regards to quality and to make use of these experiences, and increasing the number of quality experts.

(KAQA, no date supplied)

According to Al-Amri (2010) the year 2008-2009 will always be remembered as a " Year of Quality" in the kingdom of Saudi Arabia for the great achievements that were achieved by the quality movement starting with the

introduction and administration of (KAQA). However, without sustainability TQM initiatives usually fail because the main idea behind TQM is continuity over time and integration of quality management initiatives into daily organizational operations (Curry & Kadasah, 2002). In support of this further Al-Turki & Andijani, (1997) insist on the need for more programmes to be adopted in order to increase awareness of the importance of continuous improvement in Saudi organizations.

Work Culture

There has been an increasing awareness in Saudi on the importance of Total Quality management as a powerful tool for improving the work culture (Najeh & Kara-Zairi, 2007) & (Al-Turki & Andijani, 1997). Lack of understanding about the concept of TQM by employees, limitation of information available on TQM, lack of support from senior management, focus on quick profit, and lack of documented policies and procedures appear to the author to be factors that hinder the implementation of TQM in Saudi organizations. In support of this (Ahmed & Tannock, 2008) have highlighted the limited progress which has been made in quality management development in Arabic-speaking countries.

People from different countries often do things differently according to their culture. Furthermore, the culture of the same country differs from one region to another and that individuals of the same culture have different beliefs and behaviours. One way to express these variations in behaviour is the idea of culture (Treven, Mulej, & Lynn, 2008), referring to this Al-Sulimani (1995) mentions the difficulties and challenges of implementing the concept of Total quality management in Saudi because of the multinational workforce which

is estimated to represent 60 per cent of the total labour force of Saudi Arabia (Woodworth & Said, 1996). On the other hand he also argues that a workforce with experienced foreigners should improve the knowledge of the Saudi workforce.

Hofstede's five Cultural Dimensions:

According to Hofstede (2009)" Culture is more often a source of conflict than of synergy. Cultural differences are a nuisance at best and often a disaster". (To be completed)

Power distance index (PDI):

This dimension represents the extent to which the less powerful member of organizations accepts and expects unequal distribution of power and wealth. The Geert Hofstede analysis of this dimension for the Arab word including Saudi Arabia suggests a large power distance in that region, a score of 80 was recorded for this dimension see figure (1). This is according to Hofstede due to the fact that Arab societies follow a caste system that disables any significant upward mobility of its citizens.

Uncertainty Avoidance Index (UAI):

This dimension indicates to what extent a culture programs its members to feel either comfortable or uncomfortable in unstructured situations. The Hofstede analysis of this dimension for the Arab word including Saudi Arabia suggests that Arab societies are highly rule-oriented with laws, rules, regulations, and controls to increase the amount of certainty.

Individualism (IDV):

This dimension represents the degree to which individuals are integrated into groups. The Hofstede analysis of this dimension for the Arab word including Saudi Arabia suggests that the Arab society tends to be collectivist society. The score recorded for this dimension is 38, which is considerably less than the world average ranking of 64.

Masculinity (MAS):

This dimension represents the distribution of roles between the genders. The Hofstede analysis of this dimension for the Arab word including Saudi Arabia suggests that women in the Arab countries are limited in their rights due to Muslim religion not due to cultural paradigm see figure (1).

Long-Term Orientation (LTO):

This dimension is said to deal with Virtue regardless of Truth. This dimension has not been applied to the Arab word. Hofstede does not report any results for Arab countries in relation to long and verses short term orientation.