An Investigation of Quality Practices in Libya and Arab Region Countries

Mostafa Ahmed Shokshok

Department of Mechanical Engineering, Faculty of Engineering / Al Asmarya Islamic University, Zliten-Libya
moshokshok@ymail.com

ABSTRACT: *This paper investigates quality practices in Libya and Arab region countries. The main objective of this investigation is to enhance understanding, and generate explanations of quality management systems implemented in Libya and regional countries. Libyan manufacturing companies are struggling with many difficulties in implementing and maintaining a suitable managerial and quality management systems. Organizations in the Middle Eastern region are also lacking behind with respect to TQM initiative and approaches practiced.*

KEYWORDS -Libyan culture, **Libyan manufacturing companies, quality practices, TQM.**

I.   INTRODUCTION

Libya is considered to be a major oil producer, the oil industry in Libya is the main supporter of the country's economy, and accounts for more than 90% of Libya's total income [1]. Libya's production capacity is standing on 1.5 million barrels per day of crude oil, and considered as a major oil exporter to European countries, particularly Italy and Germany [2].

Libya has been subjected to a number of foreign controls in the past centuries that greatly affect its economy. Greeks, Vandals, Phoenicians, Byzantines, Carthaginians and Romans have ruled Libya for several decades. Libyans embraced Islam in the 7th century, and it was part of the Islamic Ottoman Empire until Italy invaded Libya in 1911. Libya became the United Libyan Kingdom after gaining its independence through the United Nations in December 1951. Colonel Muammar Al Gadafi led a military coup that downed the kingdom and announced the Libyan Arab Republic on September 1st 1969 [3-5]. Qadafi stayed in power for 41 years, and his era ended on August 23rd 2011 in which Mustafa Abdul Jalil is assigned as the chairman of the National Transition Council in Libya.

A.   Key Industries within Libya

Libya was a relatively poor country until the discovery of oil and natural gas in the early 1960s. Since then, the country has turned to industrialization by engaging in petroleum processing as well as iron and steel, cement, food manufacturing and textile industries. Libya is committed to developing enhanced abilities to produce goods that meet the quality requirements of present markets with all the possible products and services, which could be achieved through the most appropriate and highest technology available [6].

Libyan industrial sector companies like those in many other developing countries, are owned, managed and supervised by government institutions [7]. Companies are classified as oil and non-oil sectors. The National Oil Corporation (NOC) represent the oil-sector industry, and has its own fully owned companies which carry out exploration, development and production operations, in addition to local and international marketing companies. NOC also has participation agreements with specialized international companies. Such agreements have developed into exploration and production sharing agreements, in accordance with the development of the international oil and gas industry, and international petroleum marketing. NOC owns refining, and oil and gas processing companies, operating refineries such as Zawia and RasLanuf refineries, ammonia, urea and methanol, the RasLanuf petrochemical complex, the gas processing plants, ethylene and polyethylene plants. The Ministry of Industry, Economy and Trade represent the non-oil sector industries, companies include iron and steel, the cement and construction materials, basic metals, chemical, textile, plastic and wood, food, engineering and electrical power industries.

B.   Libyan and Regional Quality Practice Profiles

TQM approaches have witnessed wide spread implementation across the globe, the most leading of these TQM approaches are such models as the European Quality Award (EQA), Malcolm Baldrige National Quality Award (MBNQA), and Deming Prize (DP). They are considered to be the most noted quality award

models, very well accepted and known worldwide [8]. These models are widely respected in their countries; Europe for the European Quality Award (EQA) model, the United States for the Malcolm Baldrige National Quality Award (MBNQA) model, and Japan for the Deming Prize (DP) model [9]. These models have been widely accepted by both academics and practitioners as sound approaches for the assessment of TQM performance. They have grown from a TQM initiative of the 1980s, and propose a framework of a similar measure based on leadership, strategy, resources, the processes that apply them, and observation of resource-level outcomes leading to overall firm performance and value [10]. The attempts to implement quality practices in the international arena have not been always successful, regardless of its widespread acceptance of quality management. Large differences in quality management have been found across countries [11, 12], and multinational corporations have recognized that implementing quality practices internationally can be difficult [13].

II. PROGRESSION OF QUALITY IN LIBYA

Libya began to pay attention to quality just after independence and the finding of oil and gas, in which a new industrial era emerged. The finding of oil and gas increased the demand for imported industrial equipment and machines that meet the specific requirements of that industry.

After the revolution in 1969 by MuamerAlgadafi, the change in Libya has increased markedly. In view of the new wealth of oil and gas, and the tireless efforts of the government to restructure the Libyan industry, the pace of industrial change very quickly. As a result, Libya was involved in large industrial projects like oil refineries, chemicals, iron and steel, cement, food industries, and textile factories. Thus, the government's attention leaned more toward training and qualifying of the necessary technical personnel to operate these facilities more than the administrative personnel [1-3].

Despite the various pressures of the global market, the rapid spread of technology and customer demand, the Libyan government had done little to change the concept of quality and/or dissolve the traditional management structure. Besides, the governments reaction to change had been very slow, and the turmoil with the USA and UN sanctions have had a great influence in delaying most of the initiatives the government has begun [3].

The story of quality in Libya is over 50 years old, but nothing has been done in this respect until 1990, when the standard ISO 9000 came to surface. The Libyan National Centre for Standards and Metrology (LNCSM) conducted a few quality programs in mid-1990. These programs concentrates mainly on awareness, seminars and workshops on the ISO 9000 implementation. A tentative step was also initiated by the Ministry of Industry, Economy and Trade towards the promotion of ISO 9000. In 1998, the Ministry of Industry, Economy and Trade arranged several seminars and workshops nationwide in cooperation with the United Nations Industrial Development Organization (UNIDO) [4].

A study on private and public Libyan companies conducted by Tarbaghia and Betts [5], found that there is a lack of research and poor management in Libyan companies. Their findings indicated that most of the problems existing within Libyan companies were caused by:
  i.   Lack of sufficient knowledge of quality control methods and techniques.
  ii. Lack of motivation of employees for good quality work.
  iii. Poor specifications, poor materials, poor equipment, and many other technical factors that require more investigation, development, and studies.

Another research conducted by Hokoma et al [3] stated that during the recent years, Libyan manufacturing companies struggled with many difficulties in implementing and maintaining a managerial and management systems. They suggested that companies planning for TQM implementation must be aware, and overcome the barriers before TQM implementation. They also mentioned that Libyan manufacturing companies undergoes many difficulties due to administrative and operational problems. These difficulties are causing a strong negative impact on the organization'sutilization throughout the country. The implementation level of TQM within the oil and gas industry in Libya found modest. In a similar study, it is found that the actual implementation level of TQM practices in Libya's iron and steel company in Misurata is also modest [6]. Surprisingly Hokoma et al [3, 6] found that senior managers in the Libyan iron and steel company, and in the oil and gas companies, are willing to improve their business areas through applying the latest quality and manufacturing management systems, in order to achieve a high level of improvements. The implementation level of the TQM practices in the Libyan cement industry is found slightly more than both in the oil and gas industry and in the iron and steel industry [7].

Political factors, such as the international sanctions imposed on Libya over an extended period of time, started on 1986 and ended 2004 [8], have a negative influence on TQM implementation in that country [9]. After lifting the sanctions mentioned above, Libya had seven years of sanction free era (2004-2011), and again two United Nations Security sanction resolutions had been imposed on Libya and their status are still active.

Both United Nation's resolutions will also have a negative influence on TQM implementation in Libya on the long run.

On February 26th 2011 the United Nations council authorized resolution 1970-2011 which imposes travel ban, asset freezes for government personnel, and an arms embargo [10, 11]. A similar UN resolution was authorized on March 19th 2011, with reference number 1973-2011, this time the resolution main objective is to establish a no-fly zone on Libyan territories for the purpose of civilian protection [12, 13]. Resolution 1973-2011 was assigned to the North Atlantic Treaty Organization (NATO) forces for implementation, and due to the conflict between the Libyan government and the revolutionary people, the NATO intervened with military forces to assure civilian protection. Most of the manufacturing companies, including the oil and gas industry had terminated their operations since the civilian uprising on February 17th 2011 due to the unsafe working environment [8].

The above reveals that the firm's contexts, and especially management attitudes, play a strong role in shaping TQM implementation. The above political situations, are considered to be the main reasons for the unfavorable promotion of the quality ideas. This is true especially since public management is not separated from politics and the private management is not separated from ownership. In this view, the promotion of quality practices will need a change from a predominantly political system of management, in which managers are appointed and promoted on the basis of political or social affiliation, to professional management. Even though Arab governments have recently shown more flexibility and open-mindedness in seeking solutions to the above problems, which have led to the lack of quality, there is still long way to go.

Libyan companies still facing some difficulties in adopting the principles of TQM and finding the right approach. Even though there are a number of starting points for continuous improvement, it is often difficult for Libyan companies to specify and choose the right plan detailing the order of processes. However, from the literature review discussed in Chapter II, and from the above discussion and the results of the studies that were carried in Libya, the ultimate goal must be the progression towards the full implementation of TQM principles.

III. PROGRESSION OF QUALITY IN THE ARAB COUNTRIES

There is a bundle of research evidences that assures the benefits from the TQM implementation, a review of such researches is presented in Chapter II. Developing countries, like those in the Arab countries, have started the journey to quality in recent years in recognizing TQM initiatives [14]. The adoption of quality systems in the Arab countries is very slow in comparison with other regions, and managers in the Arab region companies are not familiar with TQM practices [15].

The new tendency to appreciate TQM initiatives has followed the change, which started to take place in their economic and trading policies to urge the new movement towards the free market system as in the case of Dubai and Egypt [16].Arab nations recently started to see the important role of quality management as a mean of helping and improving their organizations. However, there are very limited management initiatives and approaches in the Arab countries. Most of the researches found on quality in the Arab world nations were based on the translation from foreign languages [15]. Most of the quality practices in the Arab nations fall in the implementation of ISO 9000 quality assurance system. Al-khalifa and Aspinwall[17] indicated in their research that their study represents the first empirical study conducted on quality and TQM practices in Qatar. However, it was focused on examining the quality awareness and understanding of quality management issues without any indication of any structured approach to quality management in the country.

Awareness of TQM programs is an essential step for successful implementation, however, it is the progress key to understand the TQM philosophy and processes. As found in a study conducted in one of the Arabic Gulf areas, that nine of the 95 participants had a good knowledge of TQM and its purpose. It was also indicated that the understanding level of TQM was found highest in the oil and gas companies, followed by service industry, and then the manufacturing companies [17]. The lack of understanding of quality management, the unavailability of quality management frameworks, and the approaches in the region might be attributed to the great emphasis on ISO certification in the same region. The local firms considers the widespread application of ISO among foreign companies operating in the region, and realizing the necessitate to survive in today's highly competitive marketplace [18].

The adoption of TQM programs gives concrete evidence of the dominant trends in the region towards the translation and application of the Western models, instead of building up their own models and approaches or studying the applicability of these models in such cultures.TQM implementation requires a considerable changes in the social and technological components of the employees. Decision-makers in the Arab region have to understand and take into account that a huge changes are required if TQM is to be implemented in their countries. The basic principles must be effectively communicated among the employees, rather than implementing a framework packaged version from other countries, societies or consultants [19].

There is an enormous concern in improving the business management of the Arabic countries, however, TQM has been significantly less predominant in this region. It is intended here to shed light on this

point and discuss the possible reasons for this poor quality performance in the region.Organizations in the Arabic countries have not been operating as commercial companies due to many different forms of government intervention, and for a long time local companies have a protection against international competition imposed by government tariffs and trade barriers. As argued by Madu[20], the governments in the Arabic region are not intervening companies any more, the mentioned barriers have been overcome, and they are exposing their companies with the commercial pressures.

It is also argued by Atiyyah[21] that during the last 30 years, Arab nations have experienced a remarkable political, economical and social changes under the authoritarian regimes, where compliance and faithfulness are to the ruler, rather than stressing competence and performance, and consequently unethical practices among civil servants increased. Unethical practices also spread to the private sector that conducts business with their public counterparts. This was enhanced by the gradual erosion of the traditional social system and its long-established values and norms which used to control behavior and interpersonal relationships.

A study concerning quality management systems in the Arabic nations, conducted by Tannock and Ahmed [15], stated a number of statements regarding quality management systems in Arabic speaking nations:

i. Arabic speaking nations are very slow in practicing quality management.
ii. Managers do not have enough knowledge about TQM practices.
iii. Managers feel that their culture is not suitable for quality management approaches.
iv. Lack of knowledge, awareness and understanding of ISO and TQM.
v. Lack of quality management literature in Arabic language.
vi. Arabic speaking nations are lacking behind in quality management issues.

Many Middle Eastern countries have the capabilities and financial resources to build up manufacturing plants, but they are in need to improve their management systems to be able to lead their organizations for a better competitive position. An investigation to the current difficulties facing quality management systems in Yemen conducted by Al-Zamany et al [22], found unawareness of quality management concepts in Yemen companies, which is similar to the findings presented by Al-Khalifa and Aspinwall[17], where they found that Qatar organizations are along way behind Western countries in quality management systems.

Another barrier to seeking quality management in the region is explained by Ali [23]. He argued that Arabic nations have moved towards the industrial arena without establishing the basic foundations needed for coping with the demands of up to date organizations. This situation has produced a severe managerial and social problems, along with the big rush towards industrialization in the 1960's and 1970's, all created a great amount of pressures. This was noticed by the failure of the status of the existing infrastructure to initiate an environment that encourage people to invest and establish different kinds of businesses. The lack of experienced managers in the new public owned and private organizations to carry out their tasks effectively and to meet the ever-growing demands of people induced the wealthy Arab states to rely on foreign experts and workers [24].

On worldwide, studies were carried out showing some failures in the TQM implementation processes, despite the fact that organizations and governments worldwide are convinced with the success of TQM. This failure could be due to some factors which include differences in organizational culture [25], a poor management leadership, and insufficient training [26]. Recent studies indicated that implementing quality management in developing countries is usually associated with several problems, some of these problems include rigorous constraints on their economies, lack of training and education, lack of political will, and lack of commitment [18]. It was also argued by Lakhe and Mohanty[27] that most of the developing countries are suffering from:

i. Poor employees participation in quality improvement efforts.
ii. Lack of management commitment and motivation.
iii. Awareness that quality is extra and optional.
iv. Beliefs that 'quality costs money'.
v. Poor communication and no trust between suppliers, dealers, management and trade unions.
vi. Disorganized and uninterested customers.
vii. Lack of government support.
viii. Poor quality standards and old test facilities.
ix. Out of date technologies.
x. Uneducated employees.
xi. Lack of investment in technologies, research, and development.
xii. Disrespect to the people so far as quality of life is concerned.
xiii. Unattractive social tensions.

However, with greater competition than before, changes in global markets, changes in export-import policies and enlarged customer awareness, some organized hard work in the direction of quality are taking place in most of the developing nations, such as the case of Libya. Companies are realizing that not only growth but also their survival depends on quality matters. Therefore, some companies are reorienting themselves and are

trying to give a new boost to the quality drive [20].

IV. CONCLUSION

Libyan manufacturing companies struggled with many difficulties in implementing and maintaining a managerial and management systems. The country experienced unstable political status during Al Qadafi's era , and an international sanctions were imposed on Libya for a long period of time. These political instability have a negative influence on the implementation of TQM initiatives in the country. Organizations in the Middle Eastern region are still lacking behind with respect to TQM initiative and approaches practiced. Nevertheless, Libyan companies are considered to be in their earlier stages on their journey to the quality excellence, and a TQM framework suitable for Libya's culture is required for TQM successful implementation.

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