CRITICAL SUCCESS FACTORS FOR TOTAL QUALITY MANAGEMENT IMPLEMENTATION WITHIN THE LIBYAN IRON AND STEEL COMPANY

Massoud M. Arshida
Tun Abdul Razak University, Graduate School of Business, Capital Square, Block C & D, No. 8, Jalan Munshi Abdullah, 50100 Kuala Lumpur Malaysia.
Email: m_ershida@yahoo.com

Syed Omar Agil
Tun Abdul Razak University, Tun Abdul Razak School of Government, Capital Square, Block C & D, No. 8, Jalan Munshi Abdullah, 50100 Kuala Lumpur Malaysia
syedomar@unirazak.edu.my

ABSTRACT
This paper investigates Critical success factor for TQM implementation in Libyan Iron and steel company, in order to improve the performance and identify the main impediments of implementing TQM successfully. Questionnaire Survey and semi-structured interviews has been applied to achieve the aim of this paper.

The finding of this research revealed that critical success factors for implementing total quality management in Libyan Iron and steel company are: Education and Training, Supplier quality management, Employee Empowerment, Vision and Plan statement, Recognition and Reward and Customer Focus.

This paper has further identified three impediments that prevent Libyan Iron and steel company from implementing TQM successfully these impediments are: government influence Poor vision statement, Lack of a detailed plan towards implementation of TQM, lack of top management commitment.

Keywords: Critical Success Factors, TQM Implementation, Libyan Iron & Steel Company (LISCO)

1.0 INTRODUCTION
Most companies are trying to satisfy their customer’s needs and expectations. This can only be achieved through, improvement in product quality, increased customer satisfaction, and continues improvement towards world class organizations. These challenges urged companies around the globe to change their old traditional quality systems, and implement new quality approaches to deliver high quality goods and services. Companies that can deliver quality are the ones that will be able to compete on the globalization era (Nkechi Eugenia, 2009).

Quality improvement has become a considerable force throughout the world. Although methods to improve and manage quality are numerous, it can be said that TQM is a critical determinant in the success of manufacturing organizations. In most highly industrialized countries of the world, The United States, Japan, and the European Union, the implementation of total quality management has become a common practice and a preferred approach for improving quality (Krasachol, Willey, & Tannock, 1998). In more recently industrialized countries, such as Libya, many concepts of TQM have only recently emerged in a regularized, coherent form (Hokoma, Khan, & Hussain, 2010).
During the past few years, the manufacturing and business sector of Libya have developed due to Libya’s pivotal position in the global economy as an oil country. This development has led to the establishment and growth of manufacturing and business sectors especially after lift of The UN sanctions in 2003. At present, Libya is emerging from the revolution that overthrow Gaddafi regime in August 2011, which creates a competitive business environment and numerous business opportunities for new investments in different sectors of the economy.

Libyan Iron & Steel Company (LISCO) is one of the largest companies in Libya. It operates nine large plants with a capacity to produce about 1,324,000 Tonnes/year. The company is trying to cope with the severe competition with international firms in both developed and developing countries by implementing the latest quality philosophies and techniques.

Keeping the above in mind, this paper aims to evaluate TQM implementations in Libyan Iron & Steel Company (LISCO), and identify factors that are critical for the implementation of TQM.

2.0 Critical Success Factors for TQM

Critical Success Factors can be defined as “the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization, they are the critical key area where 'things must go right' for the business to flourish. If results in these areas are not adequate, the organization’s efforts for the period will be less than defined. ”(Rockart, 1979), If the results in these areas are not satisfactory, performance of an organization will fall short of expectations.

With concern of critical success factors, there is no universal critical success factor research method. Scholars and researchers used various critical success factor methods such as a priori list of critical success factors based on literature sources, interviews, analysis of related organizational activities, mailed questionnaires, a combination of interviews and with subsequent questionnaires (Auruškeviciene, Šalciuviene, & Trifanovas, 2006).

Meanwhile, Black and Porter (1996) place emphasis on Baldrige Award criteria, revealing ten critical factors for TQM, these factors are: supplier partnership, People and customer management, customer satisfaction orientation, external interface management, communication of improvement information, strategic quality management, , operational quality planning, quality improvement measurement systems, teamwork structure for improvement, and corporate quality culture.

Saraph et al.(1989) developed a reliable instrument to measure quality management practice this instrument based on 8 critical factors, these factors are: Role of divisional top management and quality policy, Role of quality department, Training, Product/service design, Supplier quality management, Process management operating Quality, data and reporting, Employee relations.

Ahire et al, (1996) expanded the practices even further and identified 12 factors that are critical for the implementation of TQM derived mainly from the literature, these factors are: Top management commitment, Customer focus, Supplier quality management, Design quality management, Benchmarking, use of statistical process control, internal quality information, Employee empowerment, Employee involvement, Employee training, Product quality, and Supplier performance.

Fotopoulos et al.(2009), surveyed 370 Greek companies, they find out that, leadership,
process management, service design, human resource management, customer focus, Education and Training, and supplier quality management are critical success factors in TQM implementation.

Although there are many studies in TQM literature, authors such as (Idris & Zairi, 2006; Karuppusami & Gandhinathan, 2006; Prajogo & McDermott, 2005; Sila & Ebrahimpour, 2002; Singh & Smith, 2006; Vouzas & Gotzamani, 2005) recommend that further concern should be made for the evaluation of critical success factor of TQM, the results of their adoption and the type and extent of their relationships.

Several non-Libyan specific studies, such as (Al-Khalifa & Aspinwall, 2000; Alomaim, Tunca, & Zairi, 2003; Baidoun, 2004; Chapman & Al-Khawaldeh, 2002), carried out in The Arab countries, indicate that there are seven common critical success factors of TQM (top management commitment; education and training; supplier quality management; employee involvement; vision and plan statement; Recognition and Reward; customer focus) and that these factors have been applied to studies in similar environments of developing countries in general, and in the Arab countries in particular. Therefore, these factors were adopted for this study to evaluate TQM implementation in Libyan Iron & Steel Company (LISCO).

3.0 Research methodology

The study combines two qualitative and quantitative method. Two methods were used to collect the data; namely, a survey questionnaire and semi-structured interviews. The questionnaire aimed to identify critical success factors of TQM implementation in Libyan Iron & Steel Company (LISCO), while the interview method is mainly used to support the findings and to have a better understanding of the implementation of TQM in Libyan Iron & Steel Company (LISCO). Interviews with managers were used to understand themes and issues that had emerged from the findings of the questionnaires.

A total of 85 copies of the questionnaire were distributed to the targeted employees working within Libyan Iron & Steel Company. Five-point Likert scales (strongly disagree, disagree, neutral, agree, strongly agree) were used in the questionnaire. Collis et al. (2003) stated that this scale makes the respondents more comfortable with a wide a variety of choices. The questionnaire includes 48 statements to identify critical success factors for the implementation of TQM.

The questionnaire was validated through distribution to academics in Libya who are specialising in TQM and quality management. They gave their feedback on the content of the questionnaire; their comments were taken into account, amendments were made and the document revalidated.

Out of 85 questionnaires sent to the targeted sample, a total of 70 questionnaires were returned completed. Data collected were analysed by using the SPSS programme version 12.0. Semi-structured interviews with quality managers were the second step of the data collection. The interviews were used to get a clear understudying of the issues that had emerged from the questionnaire and collect more information about the implementation of TQM.

4.0 Findings and Discussion
Out of 85 questionnaires, 70 responses were obtained. The Quantitative and qualitative data collected were analysed, a summary of main findings are provided below:

4.1 Critical Success Factors
The value of each TQM factor has been rated by a group of questions using a five-points Likert scale method. Participants were asked to score their answer from 1-5 with agree or disagree with the given statements. Using this scale, the average of the measure is 3 ((1+2+3+4+5)/5), therefore, the means greater than 3 indicate an agreement with the statements while the means less than 3 indicate overall disagreement with the statement. Table 1 below shows the mean of each factor investigated within the current study. These factors are: Top management commitment, Education and Training, Supplier quality management, Vision and Plan statement, Employee Empowerment, Recognition and Reward and Customer Focus.

Table 1: TQM Factors Mean

<table>
<thead>
<tr>
<th>Critical success factors</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management Commitment</td>
<td>3.90</td>
<td>.75</td>
</tr>
<tr>
<td>Education and Training</td>
<td>3.91</td>
<td>.90</td>
</tr>
<tr>
<td>Supplier Quality Management</td>
<td>3.80</td>
<td>.62</td>
</tr>
<tr>
<td>Vision and Plan statement</td>
<td>4.00</td>
<td>.65</td>
</tr>
<tr>
<td>Employee Empowerment</td>
<td>3.86</td>
<td>.50</td>
</tr>
<tr>
<td>Recognition and Reward</td>
<td>3.81</td>
<td>.48</td>
</tr>
<tr>
<td>Customer Focus</td>
<td>3.4</td>
<td>.63</td>
</tr>
</tbody>
</table>

All of the 7 factors shown in table 1 above were identified by quality managers that were interviewed, as being critical factors within Libyan Iron & Steel Company (LISCO). These factors are Top management commitment, Education and Training, Supplier quality management, Vision and Plan statement, Employee Empowerment, Recognition and Reward and Customer Focus.

The majority of the interviewees agreed that these factors play a significant role in achieving effective implementation of TQM. This result is supported by other studies conducted in the field. Salaheldin (2009) concluded that top management commitment plays a significant role in promoting TQM implementation in Egypt. Das, et al. (2011), found out that top management commitment, and customer focus plays a significant role in the successful TQM implementation. Chapman and Al-Khawaldeh (2002) stated that customer focus is a key element to fix and resolve customer’s problems and complaints in the companies that applied TQM philosophy. Baidoun,(2004) indicates that developing a quality policy must reflect the organisation’s mission including corporate values, expectations and focus.

4.2 Barriers to TQM implementation
To determine the major impediments to successful implementation of TQM, the respondents were asked to arrange identified barriers in a range from the most to the least according to the extent they prevent the company from implementing TQM successfully. Results from data analysis revealed that there are three barriers that prevent Libyan Iron & Steel Company (LISCO) from implementing TQM successfully. These barriers are: Lack of top management commitment, Poor Vision and Plan Statement and the Government Influence.

4.2.1 Lack of top management commitment
Lack of top management commitment is one of the major obstacles to implementing TQM successfully in Libyan Iron & Steel Company. Top management did not participate in quality management activities personally. Furthermore, they did not encourage employee involvement in quality management activities which hinder successful TQM implementation.

4.2.2 Poor Vision and Plan Statement
Interviews results revealed that there is no clear long-term vision. Libyan Iron & Steel Company did not detailed plan towards achieving successful implementation of TQM. Instead, they had only annual business performance plans and product quality goals. In this regard, having a weak vision and plan statement may lead to a failure in implementing TQM.

4.2.3 The Government Influence
Government bureaucracy was identified by interviewees as being the most influential barrier that prevent the success of the implementation of TQM. The complicated procedures set by government departments reduce the ability of the company to respond to its customers and to implement quality tools and techniques. There is no national quality policy and there is a lack of government support to quality programs. The same result is reached by Shokshok (2011), he concluded that there is a lack of government support to quality policies which negatively affect the implementation of TQM in Libyan manufacturing companies.

5.0 Conclusion
This paper has presented the results of a questionnaire on critical success factors of TQM carried out in Libyan Iron & Steel Company (LISCO). 85 questionnaires were distributed. A total of 7 factors consisting of 35 variables were considered in the questionnaire. It is found that all the 7 factors were considered as critical factors for the implementation of TQM.

The main findings from the research are as follows:
• Critical success factors for TQM in Libyan Iron & Steel Company (LISCO) are: Top management commitment, Education and Training, Supplier quality management, Vision and Plan statement, Employee Involvement, Quality Recognition and Reward and Customer Focus.

• Impediments to TQM Implementation are: Lack of top management commitment, poor vision and plan statement and government influence.

References


