

Moderating Effect of Organizational Culture on the Relationship between TQM Implementation and Organizational Performance: Empirical Evidence on Alrahila Oil Services Company - Libya

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Abstract: This paper proposed a framework to establish the relationship between the implementation of TQM success factors and the organizational performance measures, using the role organizational culture plays as a moderating variable in the oil and gas industrial sector in Libya. The study which is the first step in providing a base for the empirical study of the moderating effect of culture in the Libya oil and gas industry has put forward some key success factors for TQM implementation with special consideration of the operational culture in the oil distribution sector in the Libya oil and gas industry. Thus, the study focused on those critical factors that can easily and positively affect the organizational performance. Having proved by previous TQM researchers how organizational culture and practices significantly influence the overall organizational goal and performance, if adopted and implemented with sincerity, this study will help Libya's Oil and Gas Sector to improve its competitiveness among firms, quality of products and services, and a standard customer expectation.

Keywords: TQM implementation; organizational culture; organizational performance.

INTRODUCTION

Total Quality Management (TQM) is a universally accepted practical management technique for improving products quality, their production processes, serviceability and for supporting competitiveness among firms.

Where this is achieved, by concentrating on customers' needs, their expectations and requirements with the view to enhancing satisfaction and in turn improve the company's overall performance and quality culture [1]. Extensive literature review of TQM implementation shows that organizational culture and practices have a significant influence on the TQM implementation and the overall organizational goal and performance [2-5]. These results and conclusion, however, have been found to be largely influenced and depended on the region or country of its application [6-8].

In the Libyan context, these kinds of research are yet to be conducted. Libya and its firms, can be described as a late adopter of the TQM technique, and today, they are striving to draw on, the many successes of leading Western and Japanese firms which have achieve their competitiveness base and values from some of the key TQM principles and standards [9, 10]. Although, it is true that TQM implementation and its research in the developed world are more advanced and innovative than that practice and conducted in the developing countries. However, the absence of a complete information of the different stages of TQM implementation in states around the Middle East, South

America and Africa [11], has made it a big challenge to properly define the overall differences and implementation level. Not until recently however, only very few research study have holistically reviewed the implementation and research of TQM principles and factors in the Libyan context [12]. Hence, there is the need and opportunity for Libyan companies and organizations to (1) improve, measure and identify factors that can enhance customers' satisfaction and in turn improve their companies overall performance [13, 2]. (2) Investigate the adoption process of TQM, TQM implementation and how it impact the overall performance of the companies [4] with organizational culture as a moderating factor where this can achieve by drawing up a framework.

Although there have been some few related research works regarding the TQM implementation and how it impacts the overall performance of companies with organizational culture as a moderating factor, very little research has concentrated on the role of the different TQM implementation success factors for organizational performance. The existing literature only considers the moderating effect and impact of organizational culture on the overall relationship between the adopted leadership styles and the quality

management practices. This paper, however, is aimed to fill this gap in the research literature by focusing on some other key TQM implementation success factors that positively affect the organizational performance by proposing a framework to establish the relationship between the implementation of TQM success factors and the organizational performance measures, using the role organizational culture plays as a moderating variable in the oil distribution sector in the Libya oil and gas industry.

LITERATURE REVIEW

Organizational Performance

Companies have an important role in our daily lives and therefore, successful companies represent a key ingredient for developing nations. Thus, many economists consider Company's and institutions similar to an engine in determining the economic, social and political progress. Precisely for this reason, since the last 22 years, there have been six (6) Nobel prizes awards given to researchers who have focused on the analysis of Companies and institutions.

Continuous performance is the focus of any Company because only through performance Companies are able to grow and progress. Thus, organizational performance is one of the most important variables in the management research and arguably the most an important indicator of organizational sustainability development [14]. Although the concept of organizational performance is very common in the academic literature, its definition is difficult because of its many meanings. For this reason, there isn't a universally accepted definition of this concept. The authors [15-17] however, has provided sets of definitions to illustrate the concept of organizational performance and some of this definitions are given below.

- *Performance is a set of financial and non-financial indicators which offer information on the degree of achievement of objectives and results.*
- *Performance is dynamic, requiring judgment and interpretation.*
- *Performance may be illustrated by using a causal model that describes how current actions may affect the future results.*
- *Performance may be understood differently depending on the person involved in the assessment of the organizational performance (e.g. performance can be understood differently from a person within the company compared to one from outside).*
- *To define the concept of performance is necessary to know its elements characteristic to each area of responsibility.*

- *To report a company's performance level, it is necessary to be able to quantify the results.*

With these definitions, in the proceeding section, the study will discuss the different critical success factors for the implementation of TQM in the oil and gas industry.

TQM Implementation Success factors

Generally, the critical success factors (CSFs) for the implementation of TQM can be described as those key critical actions which a company must undertake to achieve it's long and short term goals and visions. It can further be described as the examination and categorization of such critical success factors and the determination of their overall impacts [18]. Thus in this study, those factors are viewed as things and actions that must go right for and within a company, to ensure the successful implementation of the TQM principles and standards. Conversely, an extensive literature review for the implementation of TQM suggests that there are numerous CSFs that can be useful for the successful implementation of TQM.

In implementing TQM, knowledgeable and aware leaders are required in top management in order to deal with customers' needs and expectations. To bring about the organizational change, total employee involvement, strong leadership and high commitment to quality are also needed to achieve this goal [19]. Accordingly, quality related matters have become the essential part of today organizational strategy and this can be seen clearly in the oil and gas Services industry as suggested in [14, 20, 21]. The core intervention of TQM principle and strategy in the oil and gas industry can be seen in, the creation of supplier partnership and participation in achieving total quality in production. The identification and measurement of customer's needs the use of functional teams in the identification and resolution of quality related issues, as well as scientific methods of monitoring and measurement of organizational performance. The identification of points and areas of high influence for effective performance improvement and finally the use of process management approach in the enhancement of team effectiveness [22-24].

The underlying principles and the core practices associated with the implementation of TQM and its requirements which are referred to as the CSFs of the TQM implementation in this study have been researched and presented by the following authors [25-27, 9, 28]. Summary of their work has been discussed in Table-1, while in the proceeding section; some of the key CSFs for TQM implementation that the author believes could influence organizational performance with culture as a moderating factor in Libya is discussed in details.

Table-1: Critical success factors (CSFs) of TQM implementation

S#	Author	TQM factors and their significances
1	Ho and Fung, 1994 [26]	Leadership, Top management commitment, Satisfaction of customer, error prevention, continuous improvement practice, Employee involvement, cooperation and teamwork TQM elements and Training and education
2	Mann and Kehoe, 1994 [27]	Process control and improvement, Customer focus both internal and external, leadership, Education and training, Reward and recognition of deserving employee, Supplier improvement, quality system, measurement and reporting
3	Powell, 1995 [9]	Executive commitment, customers focus, adopting the TQM philosophy, involvement of suppliers, benchmarking, training, open organization policy, employee empowerment and involvement, zero-defects mentality, flexible manufacturing, process improvement, and measurement
4 4	Dilber <i>et al.</i> , 2005 [25]	TQM has ten critical factors: People oriented and customer-supplier partnership/involvement in quality issues, quality improvement measurement systems, and communication of improvement information, others includes external interface management, customer satisfaction orientation, strategic quality management, operational quality planning and Teamwork.
5	Moballeghi, 2011 [28]	Quality planning and information, Human resources management and process quality strategic

CSFs for TQM implementation in Libya

In this section, some key CSFs which the author believe could influence organizational performance within the oil and gas industries in Libya with special consideration of culture as a moderating factor in the implementation of TQM is briefly discussed.

Leadership Commitment

Leadership which is the capacity to inspire courage and backing amongst employees which are required to achieve the organizational goals and vision [29, 30] is considered one of the key CSF for the implementation of TQM. Anderson *et al.*, [31], described the concept of leadership as the ability of management to establish practice and a long-term vision for the organization or firm driven by changing customer requirement. The commitment of management is critical to the success of TQM and any shortage in it is likely to cause a lack of success [32]. For a better organizational performance, leaders have to manage effectively the linkage between the organization's vision and mission statement, its strategies and values since they both points towards the path and function of the organization, as well as provides a roadmap that could lead to a preferable and desirable performance [33].

Top management plays a significant role in achieving a quality vision, initiate and promote continuous improvement [34, 35, 32, 36. A point worth mentioning here is, business strategy is not enough for a successful organization, however, it should be supported by a quality culture, and for that, the organizational top management are expected to change, and to create adequate and effective plans that can accommodate it [37, 32]. With this, the first hypothesis of the study can be specified therefore as:

H1: There is a significant impact of leadership commitment on organizational performance in the oil and gas companies in Libya.

Customer Focus Initiative

Customer focus can be defined as the degree to which a firm continuously satisfies its customer's needs. As it can be expected, successful companies will always recognize the need to put the interest of their customer's first in every of their decisions, by ensuring a cordary relationship with them, in order to fully determine their needs. Hence, customers are invited to contribute to the design of the products, where they make valuable input in the different developmental stages [38, 9]. It can be said therefore, that customers inputs allows most of the successful organizations to exist, and they contribute in the determination of the overall organizational performance. Hence, the contribution of customer focus initiative in the establishment of TQM implementation framework cannot be over emphasized most especially when the relationship and impact of TQM implementation on the organizational performance is required. With this, the second hypothesis of the study can be specified as follows:

H2: There is a significant impact of Customer focus initiative on organizational performance in the oil and gas companies in Libya.

Training and Education Development

Investment in education and training is very important for service quality management success. Employees should be regarded as valuable, long-term resources worthy of receiving education and training throughout their career. For an active involvement in quality improvement activities, employees should be allowed to acquire new knowledge to see the benefit of the quality disciplines and gain a sense of accomplishment by solving quality related problems

[39, 40]. In maintaining organizational growth, performance and advancement, the quality of training and education devolvement can not be over emphases. Hence, they are considered as one of the great pillars of TQM philosophy. Employees education and training can be said to be the reflection and driver of the quality of service in which customers desire to get from their purchase or investment. With this, the third hypothesis of the study is specified as:

H3: There is a significant impact of Training and education devolvement on organizational performance in the oil and gas companies in Libya.

Continuous Improvement

Continuous improvement is one of the fundamental principles of TQM. It is on record, however, that TQM cannot restrict itself to step-wise incremental improvement only. Rather, when applied in company's management it tends to focus on the continuous improvement of the totality of the company, not just on quality only [41, 42]. Continuous improvement practice in the TQM initiative can be described as one of the 25 critical TQM success factors found effective in almost 76 studies of TQM implementation [11]. The monitoring of the company's performance and the probing of their feedbacks is described as the motivating factor for proper defect prevention and in turn continuous improvement and is considered one of the fundamental to TQM. With this, the fourth hypothesis of the study is specified as:

H4: There is a significant impact of Continuous improvement on organizational performance in the oil and gas companies in Libya.

Organizational culture

The role play by organizational culture in the improvement of competitiveness among firms and for increasing productivity and profits has created an urgency for top business managers to explore innovative approaches to managing and addressing the organizational cultural issue [42]. Hence, this has resulted in several research efforts for the understanding of the different organizational cultural issues and their related disciplines, which have led to the diverse definitions of organizational culture and their different organizational parameters [2, 44, 45]. With the various definitions of organizational culture in the literature, most of which, however, points to the organizational culture as encompassing of most of the commonly held belief, attitudes and values of the workers in the organization [46]. According to Kong [47], Schein structural model of culture, defined organizational culture as a generalized pattern of mindsets, values and

beliefs, members of an organization share in common, and which shape the behaviors, practices and other artifacts of the organization which is easily observable.

The organizational culture here can be described as an explanatory variable that can be used in making distinction between competing organizations [48]. It varies from organization to organization, place to place as well as region to region since it can be easily influenced by nationality, differences in work values and standards, cultural and religious beliefs, and finally the orientations of organizations across the different region and countries [7, 8]. This is clearly seen in the different work values, cultural beliefs and standards of the different branches of multinational company like IBM, Shell etc. that have are different work values, cultural beliefs and standards in the different countries in which they operates [49, 50, 8]. Hence, the cultural standards (values) of the different organizations needs to be identified, and one must not rely generally on the reported standards and cultural beliefs from the parent company in a particular region most especially for companies with sub-branches, since such values and beliefs can easily be different from the ones in its other branches in another region(s). With this, the fifth hypothesis of the study is specified as:

H5: Organizational culture moderates the relationship of TQM Implementation and organizational performance in the gas distribution sector in the Libya oil and gas industry.

Where the TQM Implementation aspect of the hypothesis (H5) comprises of the reviewed CSFs that is; leadership commitment and, Customer focus initiative, Training and education development and Continuous improvement.

Proposed Framework

Based on the review, some key TQM implementation success factors which the Author believe could positively affect the organizational performance in the oil distribution sector in the Libya oil and gas industry, have been investigated using the role organizational culture plays as a moderating variable. In this section, however, the study is putting forward a framework to establish the relationship between the implementation of TQM success factors and the organizational performance measures. Using the role organizational culture plays as a moderating variable. In developing the relationship framework, special attention has been given to the different hypotheses that have been presented in the study as shown in Figure-1.

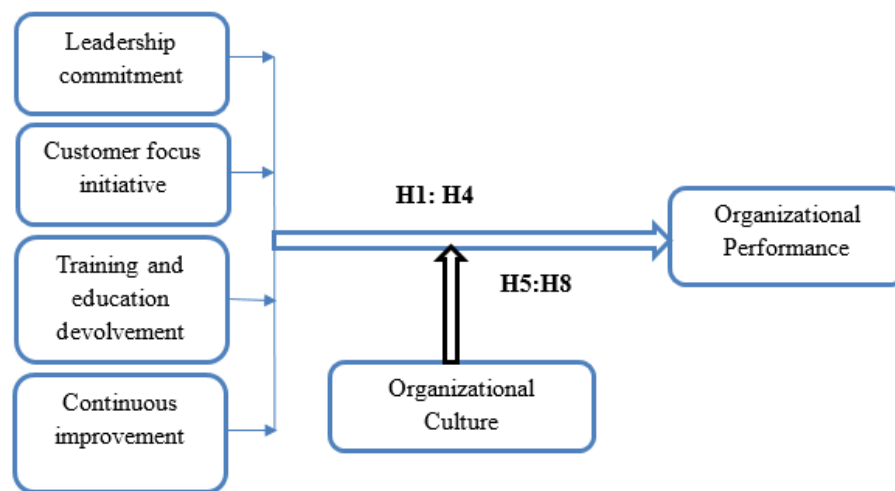


Fig-1: Relationship Framework for the Study

DISCUSSION AND CONCLUSION

In conclusion, this study has been able to provide a foundation for future empirical study by proposing a framework to establish the relationship between the implementation of TQM success factors and the organizational performance measures, using the role organizational culture plays as a moderating variable in the oil and gas industrial sector in Libya.

The relationship framework which provides an original and a unique theoretical background and framework could be used for evaluating the impact of TQM implementation success factors on the organizational performance measures when organizational culture is used as moderating variable. It provides a whole new improvement and contribution to the TQM study and implementation in Libya, consideration the high cultural values in most of the oil and gas companies.

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