

Sustained Quality Award Status in Developing Country: A study on the Dubai Quality Award Recipients

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Abstract – Quality has been regarded as one of the most important factors for achieving competitive advantage with an emphasis on excellence. Achieving excellence through quality award is a challenging task, but sustaining this achievement is even more challenging. Given the importance and benefits of continuously practicing with a quality award to organizations, very limited empirical research has been carried out especially in organizations in developing countries. This study attempts to reduce this knowledge gap by focusing exclusively on organizations that have received a Dubai Quality Award in the United Arab Emirates. The main purpose of this research is to identify those critical factors perceived as crucial for sustaining quality award status. To achieve this purpose, a structured questionnaire survey was carried out to elicit the opinions of quality managers from 138 quality award organizations about the importance of critical factors and their current practices. Survey results indicated that eight factors as the most critical factors to sustain quality award status. The results of this paper can be used by quality managers to prioritize the implementation of the proposed critical factors for long-term sustainability towards higher quality levels.

Keywords – Critical factors, Dubai Quality Award, sustaining, survey, United Arab Emirates.

I. INTRODUCTION

In increasingly competitive business environment around the world, quality has been regarded as one of the most important factors for achieving competitive advantage with an emphasis on ‘excellence’. Organizations have now come to understand that in order to keep pace with global competitiveness; they need to excel in every aspect of their business operations [1,2]. In response to these challenges, a variety of quality improvement approaches have been proposed as the prime driver for enhanced business performance towards achieving excellence [3]. These approaches have been widely recognized as the most important competitive priority for many organizations toward organizational success [4].

Among the quality improvement approaches which have been proposed, Business Excellence (BX), as a modern operation management practice based on the concept of Total Quality Management (TQM), has gained widespread attention of organizations [5,6]. It has been developed as the result of intense world-wide competition based on the quality award models/frameworks to the improvements of overall business performance [7].

European Foundation for Quality Management (EFQM) Excellence Model and the Baldrige Criteria for Performance Excellence (BCPE) are two examples of globally accepted major quality excellence award models. The first and immediate aim of these models is the continuous improvement of performance towards achieving excellence [4,6]. Self-assessment and benchmarking is the main element of these models [8,9].

The United Arab Emirates as the first developing country in the Middle East including North Africa (MENA) has enhanced competitiveness in the region by creating several significant quality and excellence award programs and schemes [10].

Given the importance and benefits of continuously practicing with quality award programs to organizations there is a clear lack of research concerning this issue especially among organizations in developing countries. From the limited literature, it can also be seen that there is limited empirical research related to sustaining quality practices through a quality award that examined both manufacturing and service organizations. Therefore, this leaves much room and opportunity for further empirical studies to be made in this context.

This empirical study therefore pursues to investigate those factors that are critical for sustaining quality award status with focusing exclusively on the Dubai Quality Award as a premier and the most prestigious quality award programs recognized by all public and private organizations within the United Arab Emirates.

This paper is organized into five sections. In the first section, a description of the literature on the previous critical factors that have been reported with respect to sustaining quality practices is presented. Then, the methodology of study followed by a discussion on the survey analysis and respective results are provided. Finally, the paper ends with final conclusions, and suggestions for future research.

II. LITRATURE REVIEW

One of the most recommended and common ways for achieving excellence is to participate in a quality award program that exist around the world [6, 11, 12]. On the whole, the participation in a quality award program is considered

as an effective pillar that can be undertaken by any organization striving for excellence status. In other words, receiving a quality award is an accreditation level that organizations need to achieve before they move on to become a world-class company [3, 13].

In the UAE, following the successful implementation of the EFQM Excellence Model in European organizations, Dubai Quality Awards (DQA) program was established to develop and promote quality practice toward organizational excellence amongst UAE based organizations. It is a fully government sponsored program which is entirely based on the EFQM Excellence Model. It is given each year to successful companies for their effort and commitment to continuous quality improvement in three categories includes Dubai Quality Appreciation Prize (DQAP), Dubai Quality Award (DQA) and Dubai Quality Award - Gold (DQAG). Since its creation, the DQA has also had a significant impact on business community at national and regional levels through promoting the need for quality improvement and building a culture of excellence between the UAE companies [14].

With the increasing levels of international competition and the demand of major customers for quality, becoming a 'world-class' company has become a main vision of many organizations in every line of business activities [6]. For that reason, over the past few years, a large number of organisations around the globe adopted quality award programs primarily as a means of self-assessment of their progress on the key dimensions of the model and for introducing organisation wide quality [15]. There has been an increasing interest in the area of organizational self-assessment using quality award models among organizations around the world and it is the same with UAE based organizations.

It has been strongly suggested that quality management practices will only produce significant benefits if it is implemented and sustained in a long-term basis [4]. However, it has been reported that organizations are facing challenges not only to implement of quality excellence but also on sustaining this practices for the long-term. Organizations using a business excellence framework and those who have reached award status have now come to realize that achieving excellence is a challenging task and sustaining the position of being excellent is harder and more challenging task. While many large organizations have succeeded in sustaining this achievement through participating in quality award process, the results of recent studies showed that there are as many failures as successes in sustaining this practice after receiving the award [4, 6, 16, 17, 18].

A comprehensive review of literature confirms that the success and failure of practices with quality management approaches are generally linked with certain critical factors [10]. As a definition, critical success factors refer to "the limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department, or organization" [19]. Alternatively, the critical success factors (CSFs) have been used significantly to present or identify a few main factors that a manager or an organization, should focus on to be successful. There are some studies that have examined the critical success factors for organizational excellence [5,20,21]. However, because of the inconsistent results of these studies due to some methodological and sampling limitations (i.e. different region/industry/company size) the confirmation of their outcomes remains unclear. This argument is supported by [22] who notes that the importance of the critical factors identified by previous research may be different from one region to another, more empirical research therefore required to be conducted in this context. In a similar view, [23] stressed that critical factors, however, do not change regularly, but they are subject to change during the different stages and they need therefore to be reviewed and modified for the different times and situations.

A review of current literature indicates that previous research on critical success factors of quality management mostly have examined those factors that are crucial for implementation process [3, 5, 24, 25, 26, 27]. However, only a few empirical studies have attempted to examine critical success factors that contribute to sustaining quality excellence practices such as the research by [16, 18, 31, 32]. It is suggested by [6], consistent with [4], that more research should be undertaken to explore these apparent contradictions in more detail. Apart from that, it is also apparent that most of previous studies discussed on the 'hard' elements of critical success factors of quality practices, while very few studies were found to be exclusively addressing the 'soft' critical success factors [33, 34].

Despite to the broadly published literature on the implementation of quality practices where very few studies have been carried out regarding to sustaining quality and its related issues. This is especially lacking with respect to Asian organizations, particularly within the UAE context. In the UAE context, some studies, while identifying critical success factors for quality management practices, investigated the relationship between these elements and organizational performance [24, 28] conducted a survey with the aim to validate measurement of the critical success factors of quality management practices by focusing in UAE service and manufacturing industry. This study has shown that critical success factors of quality management practices could be reduced to eight factors, similar to those presented by [24]. A study carried out an empirical study through survey questionnaire to identify critical 'soft' factors for successful TQM implementation process. They highlighted 16 critical factors for successful implementation of TQM practices in the banking sector. Another study attempted to investigate the most critical success factors for achieving organizational excellence for engineering companies in the UAE and Saudi Arabia. Their research suggested 15 traditional critical success factors without focusing on the 'soft' factors of quality practices.

III. METHODOLOGY

Survey Population and Sample

The target population for the questionnaire survey was included 168 local and foreign companies and institutions that have received award between the years 1995 and 2010. However, due to significant cultural differences at organizational levels between local and international companies in the context of quality practices, only 138 UAE-based organizations were included as the target sample. This sample was contained all three award organizations including DQAP certificate, DQA award, and DQA-GOLD Prize. These organizations are physically operating in four main states (Emirates) of the UAE namely Abu-Dhabi, Dubai, Sharjah, and Al-Ain.

Selected sample consisted of different size of organizations including ‘micro’ (with less than 20 employees); ‘small’ (21 to 100 employees); ‘medium’ (101 to 250 employees); and ‘large’ (with more than 250 employees) based on Dubai Chamber of Commerce and Industry classification. It is notable that this sample represented 82 per cent of the whole population of the study from various business activities including manufacturing, service, construction, healthcare, professional, trade, education, finance, and tourism.

For the purpose of this study, senior officer or management representative in charge of quality was selected as the primary information sources for answering the survey questions. These included quality directors, quality managers; business excellence managers, quality assurance/quality control managers, or operations managers. However, only a person within each company was invited to participate in the survey based on availability and interest. The reason for choosing these individuals was mainly due to their first-hand knowledge and years of experience in driving and planning of quality activities in respective companies.

Table I presents a summary of selected population, sample and unit of analysis and respondents in more details.

TABLE I
TARGET POPULATION AND SAMPLE OF SURVEY

Description	Participants/respondents
Target population	All 168 DQA recipients across the UAE including public and private, local and foreign companies and institutions.
Target sample	Only the 138 local companies from three different award categories i.e. DQAP certificate, DQA, and DQA- GOLD awards.
Unit of analysis	UAE based organizations from manufacturing, service, trade, finance, tourism, construction, professional, healthcare and education.
Target respondents	Senior quality coordinator; quality manager; business excellence manager, quality assurance/quality control manager, operations manager, manager representative.

Survey Questionnaire Design

The survey questionnaire of the study which was administrated for the final survey was basically developed into an A4-size questionnaire in five (5) pages includes four sections with a total of 72 questions. All questions were arranged sequentially with a clear title according to its purposes to make it easy for the respondents to answer. Three common types of survey question including multiple questions, ranking scales and yes/ no questions were included in developing the questionnaire. Respondents were requested to tick their response at the appropriate box and select the degree of their agreement or write in the space provided. To guide the respondents on how to answer the questions, a short introduction with a clear instruction was provided for each section.

The respondents were requested to determine the level of importance of the critical factors rating on a five-point interval scale ranging from 1 (being not important) to 5 (being an extremely important). The first page highlighted the objectives of the study.

Survey Data Analysis

In other to analyze the collected data from the survey, the Statistical Package for Social Sciences (SPSS) software 21.0 as the latest version was applied to analyze general characteristics of the respondents (demographic variable). The tests used were descriptive and inferential statistical analysis in the form of frequency, percentages, cumulative frequency, and cumulative percentages. Some initial statistical techniques such as reliability test, means, variance and standard deviations were also used in interpreting the results.

Survey Reliability and Validity Test

In this study, to determine whether or not the survey questionnaire measures critical factors in a useful way, Cronbach's coefficient alpha was adopted as the most common and the best index to calculate internal consistency. Table II shows the final results of internal consistency analysis for the eight critical factors. As it can be seen, the alpha values for each factor has internal consistency value ranged between 0.748 and 0.947 which are considered as acceptable value. From the results obtained, it can be concluded that the proposed critical factors are sufficiently reliable and the questionnaire is a consistent instrument for further analyses since all the factors have reliability coefficients with alpha value above 0.70 ($\alpha > 0.70$).

TABLE II
 INTERNAL CONSISTENCY TEST RESULT

#	Main Factors	Cronbach α^a	Mean
C01	Top management commitment	0.870	4.4097
C02	Strategy and quality planning	0.869	4.2810
C03	Empowerment and involvement	0.784	4.0879
C04	Education and training	0.838	4.0754
C05	Teamwork and cooperation	0.748	4.1538
C06	Recognition and reward	0.947	4.3407
C07	Communication and relationship	0.839	4.3375
C08	Work culture and climate	0.775	4.3344

^a Cronbach's Coefficient Alpha (α)

For validity of the survey questionnaire, literature review was first carried out to elicit critical factors and related sub-factors of the survey questionnaire. The main aim was to ensure that the empirical findings accurately reflect the proposed critical factors and provide confidence. Following this review, the proposed critical factors and related sub-factors as well as content of the questionnaire were evaluated by quality experts including of academics and practitioners. Through this evaluation, necessary corrections and adjustments were done after the questionnaire was reviewed by the panel of experts.

To ensure that the survey instrument serve its purpose and could understand by potential respondents, it was piloted by quality directors/managers before main data collection. The aim of the pilot study was to evaluate the effectiveness, content, clarity and style of the questions. Each participant was requested to verify and assess the survey questionnaires in terms of its content, wordings, relevance, and clarity. Through the pilot study, some corrections were made on the questions structures to improve and enhanced the survey instrument. Lastly, in order to ensure that the survey questions were meaningful to potential respondents, the final questionnaire was reviewed by an English native expert with sufficient background and knowledge on the topic of quality before the actual data collection.

IV. SURVEY RESULTS AND DISCUSSION

Having analyzed the proposed critical factors, an attempt was made to examine to what extent there are significant differences on the perception of the respondents on the degree of importance of the critical factors.

The data analysis involved a comparison between two independent categories of the quality award recipients (i.e. DQAP and DQA) to observe the differences in perception by using independent samples t-test.

To help achieve this purpose, the following research null hypotheses were formulated for testing the significant difference in perceived level of importance:

$H_0: \mu_1 - \mu_2 = 0$, i.e. there is no significant differences between perceived importance of DQAP and DQA companies.

$H_1: \mu_1 - \mu_2 \neq 0$, i.e. there is a significant difference between the perceived importance of DQAP and DQA companies.

In order to analyze the above hypothesis, an independent-samples t-test was carried out using SPSS. This test was more suitable to compare the mean values between two different groups of respondents.

Based on the results, since the *p-value* of each factor is more than 0.05 (significant level), therefore, the null hypothesis was not rejected. In this case, it can be concluded that the result is not significant, meaning both of the DQAP and DQA companies have almost the same perceptions on the importance of the proposed critical factors. The results of this test are summarized in Table III.

TABLE III
 THE MEAN SCORES FOR CRITICAL FACTORS OF DQAP VS. DQA

#	Main Factors	μ DQAP	μ DQA	P- value	Results
C06	Recognition and reward	4.389	4.250	0.276	Not Sig.
C01	Top management commitment	4.377	4.468	0.439	Not Sig.
C08	Work culture and climate	4.375	4.2589	0.315	Not Sig.
C07	Communication and relationship	4.370	4.276	0.434	Not Sig.
C02	Strategy and planning	4.278	4.285	0.946	Not Sig.
C05	Teamwork and cooperation	4.118	4.218	0.454	Not Sig.
C03	Empowerment and involvement	4.082	4.098	0.893	Not Sig.
C04	Education and training	4.058	4.107	0.732	Not Sig.

V. CONCLUSIONS

This paper was addressed the issue of quality practices by focusing exclusively on organizations based in the United Arab Emirates with Dubai Quality Awards status. The paper has provided a detailed discussion of those critical factors perceived as crucial for sustaining quality practices in the context of the UAE. The need for such a study arises as there is a paucity of empirical research relating to quality excellence practices through a quality award in the published literature and more specifically in the context of the UAE.

The prime purpose was to recognize and empirically assess ‘soft’ critical factors that contribute to the success of sustaining quality excellence practices. Based on the survey findings, *Leadership and Management Commitment* identified as the highest and most crucial driving factors followed by *Recognition and Reward* as the second highly ranked critical factor for sustaining quality excellence practices. *Communication and Relationship*, *Work Culture and Climate*, and *Strategy and Quality Planning* are other critical factors with a near equal importance. The findings and conclusions from this study offer significant contribution to the enhancement of existing body of knowledge related to quality excellence practices in general, and in the context of UAE, in particular. In terms of originality, this study is considered as one of the pioneer empirical studies that examine the UAE based organizations with the DQA status.

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