

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 and validate 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, quality award, survey, sustaining, Dubai Quality Award.

1. INTRODUCTION

In today's highly competitive business environment, it would be hard to find an organization that ignores the practice of quality management approaches. Within the increasing changing of the business economy, organizations have been forced to provide high quality consistently and pay more attention to quality of products and services. A comprehensive review of literature confirms that the success and failure of practices with quality management approaches are generally linked with certain critical factors.

According to [1] long-term success through the use of quality management approaches depends on the sustainability over a long period of time. Sharing a similar view, [2] also argued that sustainability of quality management practices is attained through successful implementation of critical success factors in an organization. As highlighted in the review, the soft-related critical factors that identified by previous researchers in other countries, may have same as in the context of the UAE, but without any attempt to identify or validate them it is still uncertain. This argument is also supported by [3], who note that the

importance on the critical factors identified by researcher may be different from one region in the world to another. In a similar view, [4] also believe that critical success factors, however, do not changes regularly but they need to review and modify in the different time.

Identifying critical factor is important as it allows organizations to focus their efforts on building their capabilities to meet the critical success factors, or even allow organizations to decide if they have the capability to build the requirements necessary to meet critical success factors.

Upon further analysis of the current literature and despite the numerous wealth of studies on quality management practices in various countries, very few studies have been observed with respect to the UAE context. As such, there is a need to conduct an empirical study to identify and analyze the factors that critical in sustaining quality management practices in the long run.

This paper therefore seeks to investigate 'soft' critical factors affecting sustaining quality excellence within the United Arab Emirates context with focusing exclusively on the Dubai Quality Award recipient companies as an effective quality award programme in the region.

The paper is organized into five main sections. Following the introductory part, a description of the literature reporting the critical success factors research of quality management practices is presented. Then, it explains the methodology of study followed by a discussion on the survey analysis and respective results. The paper ends with final conclusions, and suggestions for future research.

2. LITRATURE REVIEW

In light of the growing importance of quality management around the world, the UAE 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.

Over the last decade, the UAE has undergone a significant increase in terms of the number of quality/excellence award programs and schemes at the national and state levels to encourage companies to implementing quality excellence. However, the quality management movement in the UAE started with the idea of creating a quality award program first conceived by Dubai Government in the early 1994s. The successful implementation of the DQA has encouraged other states to establish their own quality excellence award programs.

The Dubai Quality Award (DQA) was the oldest quality award in the region developed with the formulation of Dubai quality strategy to encourage the UAE companies to pursue quality excellence [22]. The DQA program is an annual event given to best performing companies and institutions across

the UAE, both private and public, which have succeeded in implementing quality management initiatives. However, based upon the DQA selection criteria, a certain level of commitment to sustain continuous improvement in work place has to be achieved by previous DQA recipients to receive a higher level recognition [22].

There are three categories in the DQA in line with international standards namely the Dubai Quality Appreciation Program (DQAP), the Dubai Quality Award (DQA) and the Dubai Quality Award Gold Category (GOLD). Figure 1 shows the role model organizations considered for the DQA program based on the three award categories. According to the model, a certificate of appreciation (i.e. DQAP) is given to applicants who obtain a sufficient score between 300 and lees than 550 points, and the DQA is presented to enterprises that attain a score between 550 and 750 points. A score of over 750 points is required for the Gold prize award.

Today, the DQA program is the most prestigious and effective quality improvement programme and has become a significant self-assessment tool used by hundreds of UAE-based companies to effectively assess and improve their performance against the international excellence model.

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. 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" [5]. Alternatively, it can be said that the CSFs are the select few main requirements that must be present for an organization to be able to attain its vision, and to be guided towards its vision.

Previous studies were done on issues related to quality management such as SERVQUAL instrument modification [6,7]; service quality measurement [8]; service quality and leadership [9], and implementation of ISO 9001: 2000 [10]. These studies have focused mostly on service organization contexts especially the banking sector.

The first major research project on quality management was carried out by [11] to validate measurement of the critical factors of quality by focusing in UAE service and manufacturing industry. The research was replicated, but the study by [12] was conducted to prove the viability of the developed instrument in an international context. Their study revealed weaknesses in the instrument, in which there were elements that needed further clarification. The research conducted by [13] attempted to identify soft elements critical to the successful TQM implementation process through the survey questionnaire in the UAE banking sector. They highlighted sixteen factors that are critical for the successful implementation of TQM. However, this study has certain limitations such that its results may not be applicable to other

industrial sectors. [14] also undertook a survey to identify the most critical elements to achieve organizational excellence based on experience of engineering firms in the UAE and Saudi Arabia. They suggested fifteen traditional critical elements of excellence without focusing much on the soft elements of quality management practices. Finally, [15] conducted an exploratory survey with associated to continuous quality improvement within the UAE industries. The author has indicated five key success factors by analysing only two case study organizations based in the UAE.

3. METHODOLOGY

3.1. Population and Sample

The target population of this study contained all DQA's applicants that have been received the DQA both of award and certificate in one of the categories in 1995 to 2010. However, to support the objective of the survey only the local organizations were included as a target sample in the final survey.

The respondents to the survey were mainly directors or senior managers of quality and business excellence. It was believed that these individuals were appropriated to answer to the survey questions as they are directly involved and responsible in the process and have first-hand knowledge about the implementation of quality in their industries.

3.2. Survey Instrument

With respect to the survey's objective, a research instrument was developed in the form of a questionnaire containing several items as an appropriate instrument to collect the required data and information. This questionnaire was designed based on a variety of inputs such as literature review, inputs from quality experts, a comparative study of quality award models and field visits. Then, the questionnaire was improved in terms of clarity based on a pilot survey.

The respondents were asked 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. The questionnaire included as follows: Section 1- Basic information about the organizational collection of demographic variables, and Section 2- A number of 52 statements which resulted from an extensive review of literature on the critical factors to quality management practices as well as the feedback of academics and practitioners in the field.

Table 1: DETAILS ABOUT THE RESPONDENT AND ORGANIZATION

Organization information	Frequency (f)	Percentage (%)
Full-time employees		
< 20 employees	3	3.2
21 - 100 employees	12	13.2
101- 250 employees	12	13.2
> 251 employees	65	71.4
Company establishment		
< 5 year	4	4.4
5.01 - 10 years	10	11.0
10.01 - 15 years	17	18.7
15.01 - 20 years	7	7.7
> 20 years	53	58.2
Company ownership		
Fully local-private	51	56.0
Joint Venture	13	14.3
Semi-Governmental	20	22.0
Governmental	7	7.7
Position/title		
Quality Coordinator	7	7.7
Quality Manager	42	46.2
Senior Quality Manager	17	18.7
Executive Director	20	22.0
General Manager	5	5.5
Work experience		
< 1 year	0	0.0
- 3 years	5	5.5
3.01 - 5 years	8	8.8
5.01 - 7 years	23	25.3
> 7 years	55	60.4
Total	92	100.0

3.3. Analysis Method

The final data collected were mainly analyzed through descriptive statistics in order to assess and rank the degree of prevalent obstacles obtained from the sample companies. Statistical Package for Social Sciences (SPSS) software Version 21 was used to analyze the data collected from the respondents at companies that participated in the survey. A specific reliability and validity tests were also conducted on the survey instrument for the purpose of this study.

4. RESULTS AND DISCUSSION

4.1. Respondent Profile

A total of 92 companies out of 138 in different types of industries returned the completed questionnaire for an overall response rate of 66.7 percent. Further scrutiny revealed that one questionnaire response was incomplete; therefore only 91 responses were considered for analysis which is considered to be adequate for this kind of survey.

The companies which took part in the survey varied in terms of size, type of business and industry. As shown in Table I, the most of the organizations (71.4 percent) in the sample are part of large companies with more than 250 employees and they are grouped as fully local-private companies (56.0 percent). Of the respondents, the majority of the individuals working as Middle Manager (46.2 percent) with more than 7 years working experience in related fields.

These results indicate that all of the respondents were sufficiently knowledgeable about the subject being surveyed and they were practiced enough to provide reliable answers to the survey questions.

4.2. Descriptive Analysis

The first part of 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. The statistic showed there is no significant difference among these companies while the *p-value* is greater than .05 (sig. > 0.05). (See Table II)

Table 2 :COMPARISON RESULT IN THE EXTENT OF PRACTICES

INDEPENDENT-SAMPLES STATISTICS FOR MEAN IMPORTANCE OF DQAP VS. DQA

Factor	DQA P	DQ A	P-value	Results
Top management commitment	3.85	3.98	.354	Not Sig.
Strategy and planning	3.88	3.96	.533	Not Sig.
Empowerment and involvement	3.64	3.76	.380	Not Sig.
Education and training	3.56	3.77	.180	Not Sig.
Teamwork and cooperation	3.67	3.85	.208	Not Sig.
Recognition and reward	3.90	3.91	.982	Not Sig.
Communication and relationship	3.93	3.87	.680	Not Sig.
Work culture and climate	3.85	3.68	.260	Not Sig.

climate	4	3	Sig.
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In the second phase, data analysis involved in quality manager's perception on importance of factors that critical to quality management practices. Based on survey result, as shown in Table III, the overall score mean ranges from 4.07 to 4.40, which correspond between 'moderately important' and 'very important' (3 to 4 on the Likert scale).

4.3. Reliability and Validity Test

In order to assess whether the variables of survey questionnaire are reliable for further analyses, an internal consistency test was performed using Cronbach's Coefficient Alpha. Table III shows the final results of internal consistency analysis for the each variable. Basically, with Cronbach's coefficient alphas of above 0.7 will be retained. The results indicated that the survey is fairly reliable as alpha values for all the eight critical factors were within acceptable range (that is, above 0.70) as recommended by [16].

Table 3 :RESULTS OF CRONBACH'S COEFFICIENT ALPHA

Factor	Critical factors	Cronbach a	Mean
Fac-1	Top management commitment	0.870	4.4097
Fac-2	Strategy and quality planning	0.869	4.2810
Fac-3	Empowerment and involvement	0.784	4.0879
Fac-4	Education and training	0.838	4.0754
Fac-5	Teamwork and cooperation	0.748	4.1538
Fac-6	Recognition and reward	0.947	4.3407
Fac-7	Communication and relationship	0.839	4.3375
Fac-8	Work culture and climate	0.775	4.3344

a Cronbach's Coefficient Alpha (

With respect to validity of the survey questionnaire, the content validation was carried out through various usual methods. In this respect, after the choice of the factors/variable/items from a comprehensive review on literature, the survey instrument was first reviewed through a panel member of experts involving/comprising of 11 Universities academics and 16 national and international practitioners and industrialist in order to improve the composition of the questions. The selected experts had sufficient knowledge and experience on the subject matter/ in

the topic area. Moreover, to ensure that the content was appropriate and did not include anything that is unnecessary the survey questionnaire was also piloted separately to a group of quality managers/officer who had a good understanding and experience in the area of quality management and business excellence. Through the comments and suggestions given by the expert's panel and the pilot study the survey instrument was modified and improved before conducting the actual survey. In this way, it is believed that the survey instrument developed for this study has content validity as it was well received by the respondents of panel of expert and the pilot study.

5. CONCLUSIONS AND FURTHER RESEARCH

The outcomes from the empirical study regarding the main factors that critical for sustaining quality management practices in the UAE industries have been presented throughout this paper. The findings provide by this study should serve valuable contribution to the enhancement of the knowledge both at practical and theoretical levels around the topic of quality management on the whole and contribute to the limited literature in the context of UAE.

Based on the extensive survey and synthesis of relevant literature, this study offers eight critical factors from more than 90 quality management practices engaged in manufacturing and service industry and sector at different levels of quality as depicted in Table 2. While it is certainly true that other sets of factors could be developed or defined in the future, this set appears to capture most of the important and critical factors effective quality management practices and overall benefits as recommended by today's leading researchers and practitioners.

The criteria for ranking these eight critical factors were based upon the mean scores which were analyzed through this study as well as an extensive relevant literature survey in quality management. Furthermore, the reliability internal consistency test suggests that all of the factors are acceptably reliable enough to be used in a similar research context. The ranking of critical factors in order of their importance are in the following manner:

- Top management commitment
- Recognition and reward
- Communication and relationship
- Work culture and climate
- Strategy and planning
- Teamwork and cooperation
- Empowerment and involvement
- Education and training

The grouping of the purpose critical soft factors should be useful for further studies related to the topic of research

which may be conducted in similar or different contexts or countries. The results may also be helpful to those companies that are planning or thinking about participating in any quality/excellence award programs in the region to better improve their chances of success.

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