



Critical Evaluation on Business Excellence Models (BEM) – A Case Study

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ABSTRACT

When looking at companies that have adopted TQM as part of their corporate strategic planning, DEWA stands out as one of the most successful. Examining the specifics of DEWA's strategy and the rules it follows to be an innovative corporation is essential to understand how the company got successful. This research analyzes quality management and discusses various topics relevant to Excellence and TQM. Subsequently, how DEWA practices and implements overall quality management, with an emphasis on multiple divisions, where several patent applications have been filled. The results indicate that DEWA systematically assesses its quality management concepts highlighting TQM and the BEM they use (EFQM) to ensure they are in line with the strategy of the business and the global innovation index. Due to organization's high level of implementation and focus on quality, no major gaps were observed. However, there is always a need to maintain forward momentum, in which it requires the company's concepts to be in sync with all these principles (TQM & BEM) along with ISO, and risk management.

1. INTRODUCTION

Due to the industrial revolution and increased development in global trade, all organizations around the world were forced to meet international standards in terms of quality management (QM) by seeking excellence and innovation through the application of quality concepts in management and the adoption of standard specification models, referred as Business Excellence Models (BEMs) (Youssef et al., 2017). This has led to the emergence of a competitive number of approaches such as; TQM, ISO9000, Kaizen, Lean Six Sigma, etc. As well as the BEMs such as; DGEM, EFQM, MBNQA, ABEF, etc (Abusa and Gibson, 2013).

TQM is considered a way of thinking that leads to applying quality principles in all organizational

activities to achieve world-class performance (Singh and Singh, 2014). It is achieved by considering activities that would attain customer satisfaction and ensure continuous improvement throughout all organization's processes (Martínez-Lorente et al., 2004). While BEMs are identified as overarching frameworks used by organizations to assess their quality practices and improve performance (Al-Juboori and Al-Azemi, 2016). However, the organization's culture of implementing excellence is considered also a key driver to succeed in applying such philosophy (Koval et al., 2019).

As stated by Prajogo et al. (2006), a rebirth in organization management has been represented by QM, focusing on excellence as a result of global

competition and economic liberalization (Prajogo and Brown, 2006). Since the emergence of modern quality practices in the mid-1980s until today, quality management has attracted more attention from organizational management, leading most countries worldwide to focus on BEMs, highlighting it as a significant factor of success and a critical mechanism for achieving improved performance and national competitiveness (Ellitan and Dihadjo, 2021).

One primary industry that focuses on quality is the Public Sectors of Water & Electricity. Upon (Setiawan and Purba, 2021) research on the best quality management approach applied for this sector, TQM has marked the highest ratio of success among other proposed philosophies and traditional methods (Al-Juboori and Al-Azemi, 2016; Almasaeid et al., 2022; H. M. Alzoubi et al., 2022c). The study has approved that applying TQM for the mentioned sector noticeably influences the organization's success positively by contributing to reducing costs and expenses (Alzoubi et al., 2021; Kassem and Martinez, 2022), improving customer satisfaction and supplier performance, and improving profit directly after applying TQM (H. M. Alzoubi et al., 2022e).

This research aims to explore the TQM and BEM applied in the local-based public water & electricity sector, DEWA, focusing on the organization's benefits upon applying such philosophy, current quality culture, TQM compatibility, quality management systems, quality processes development, and the critical challenges encountered. The research also intends to identify gaps and shortcomings within the organization's applied models and philosophy and propose recommendations for further improvement.

2. LITERATURE REVIEW

2.1 *Quality Management in relation to Business Performance*

Quality is of utmost importance in the modern, highly competitive economy (R. S. Al-Marooof et al., 2021b; T M Ghazal et al., 2023a). As stated by Singh & Singh, loss in quality is directly results in loss of customers (Abudaqa et al., 2021; AlDhaheri et al., 2023; Muhammad Turki Alshurideh et al., 2022b; Farrukh et al., 2023). Overall competition in the global market has led companies to make sustained efforts in improving quality to achieve better

products, services (Alzoubi et al., 2021, 2019; Amiri et al., 2020; E. Khatib et al., 2022), processes, and eventually better performance (Al-Kassem et al., 2022; Alshurideh et al., 2023b, 2023c; H. M. Alzoubi et al., 2022b, 2022g; Varma et al., 2023). Many different models can be used to execute quality management, including those from the European Foundation for Quality Management (Aziz et al., 2023; El Khatib et al., 2020a; Sakkthivel et al., 2022), the International Organization for Standardization (ISO), and the Malcolm Baldrige National Quality Program (Taher M. Ghazal et al., 2023)(Ghazal et al., 2021)(Aziz et al., 2023; M. El Khatib et al., 2021). The objective of the quality movement is to improve the overall level of work performed at an organization on all levels (Alshawabkeh et al., 2021; Louzi et al., 2022b). It guarantees that the activities will be carried out well and that internal and external customers' needs will be met (Arshad et al., 2023)(El Khatib et al., 2019)(T M Ghazal et al., 2023c; Hani Al-Kassem, 2021). One must first focus on raising the bar for quality to reach the pinnacle of performance (T M Ghazal et al., 2023b). Excellence is the state of being exceptional (Al-Kassem, 2017; Alshurideh et al., 2022; Anaam et al., 2023). To achieve business excellence, one must go above and beyond what internal and external customers expect (I. Akour et al., 2022; El Khatib and Ahmed, 2019). Profitability and customer satisfaction go hand in hand, which is why an excellent business can achieve both (Al-Kassem et al., 2013; El Khatib and Ahmed, 2018; Louzi et al., 2022a). To excel means to win in a competitive market by acquiring and delivering superior goods and services to consumers in the least amount of time possible while maintaining the highest level of efficiency (Alshurideh et al., 2022; H. M. Alzoubi et al., 2022d). Business, Engineering and Technology, and Organization can alternatively serve as its axis labels (Al-Kassem, 2014; H. M. Alzoubi et al., 2020; El Khatib, 2015). However, quality can only be maintained via persistent overtime efforts (Alshraideh et al., 2017; M T Alshurideh et al., 2022; H. M. Alzoubi et al., 2022d, 2022f; Khatib et al., 2022). A business with sustainable excellence stays at a high level of success and profit for a long time and responds well and quickly to the needs of the social and economic environment (Alzoubi et al., 2022; Alzoubi and Ahmed, 2019; Mat Som and Kassem, 2013). Quality management is stated to be a

significant factor to address while processing elimination of waste (Akour et al., 2023; Al-Dmour et al., 2023; El Khatib and Oplencia, 2015), product and service protection from faults, and consequently loss of jobs or organization value (Al-Kassem et al., 2012; Bawaneh et al., 2023; El Khatib et al., 2020b).

2.2 Quality in Literature

Quality experts have varied definitions of what quality is (I. A. Akour et al., 2022; H. Alzoubi et al., 2020). According to Juran, quality means that a thing can be put to good use. The ability to deliver value to customers or users as advertised is what we mean when talking about quality. The product needs to work as expected (Al-Marroof et al., 2022a; Alzoubi et al., 2022). However, risk refers to a scenario where the outcome is either unsure or undesirable. (El Khatib and Ahmed, 2020) argues that combining the two definitions opens the door to the possibility that any plausible cause can result in poor product quality (A I Aljumah et al., 2022a; M T Nuseir et al., 2022a; Mohammed T. Nuseir et al., 2022).

2.3 Integration of TQM & ISO for Organizational Effectiveness.

Many studies advocate the integration of TQM and ISO to boost organizational effectiveness (A I Aljumah et al., 2022b; Nuseira and Aljumah, 2020). (Alzoubi et al., 2022) claim that combining TQM with ISO is a novel approach that could benefit a business (Aljumah et al., 2021a; Muhammad Turki Alshurideh et al., 2022a; Nuseir et al., 2021). The research focused on manufacturing firms and the steps they may take to become more on par with the best in the world (H. M. Alzoubi et al., 2022a). There were 2,961 participants in the study from developing and developed countries (Aljumah et al., 2020; Blooshi et al., 2023; Gaytan et al., 2023; E. Khatib et al., 2021). The product is what happens when combining two different approaches to quality management, namely, ISO 9000's quality management system and Total Quality Management (Abudaqa et al., 2022; M. El Khatib et al., 2022a). The investigation discovered that ISO and TQM are complementary to one another (Al-Marroof et al., 2022b; M. El Khatib et al., 2022b; Nuseir, 2020). Combining Total Quality Management (TQM) with the International

Organization for Standardization (ISO) in companies leads to enhancements in quality, operational management, inventory, time-based performance (Aljumah et al., 2021a, 2021b; Yasir et al., 2022), and competitiveness (Nuseir and Elrefae, 2022; Nuseir et al., 2020; Nuseir and Aljumah, 2022). Univariate and multivariate analyses were used to analyze the data. Ultimately (Ahmed and Nabeel Al Amiri, 2022; Hanaysha and Alzoubi, 2022; Emad Tariq et al., 2022), it was determined that ISO and TQM had the potential to improve business results both immediately and over the long term (A. Al-Marroof et al., 2021; Alshurideh et al., 2023a; Nadzri et al., 2023; E Tariq et al., 2022).

2.4 Global cases on TQM's influence on Organizational Performance

Researchers Abusa and Gibson (2013) investigated the link between organizational effectiveness and increased prospects. The study was conducted in a Libyan setting (Khan et al., 2022; Lee et al., 2023). The authors of this study analyzed the effects of TQM on a Libyan manufacturing firm's productivity (El Khatib et al., 2021; Nuseir and Aljumah, 2020). Both with and without ISO, the performance was measured (Ahmed et al., 2022). Companies that combined ISO and TQM saw considerable increases in exports, as measured by these statistics (Aityassine et al., 2022; Al-Awamleh et al., 2022).

According to a study conducted in Albaha province in KSA public sector entities to investigate the correlation between TQM and organizational performance along with the organizational culture (Nuseir, 2021); TQM is stated to be highly influential on organization's performance (Akour et al., 2021; R. S. Al-Marroof et al., 2021a; Mubeen et al., 2022). Organizational culture's effect on implementing such philosophy is also noticed in the correlation results (Aljumah et al., 2023; Ahmad Ibrahim Aljumah et al., 2022a; M T Nuseir et al., 2022b).

2.5 Research Gap and Problem Statement

Looking into factors influencing organizational performance and effectiveness, the adoption of TQM, ISO, and other business models appeared to be highly influential. However, each type of entity requires different collection of strategies and techniques to improve its performance. Public sector entities are considered a critical category in

which its nature of huge operations and projects running makes it highly challenging to be continuously running in an excellent performance. This paper studies Dubai's Water & Electricity Authority adoption of TQM and the practices it undergoes to sustain its excellence position (Ahmad Ibrahim Aljumah et al., 2022b; Khatib et al., 2016).

2.6 Methodology and Research Design

Research methodology depends qualitative data gathered from both resources; online journals and books for secondary data, and two structured interviews for primary data (Gulseven and Ahmed, 2022). The three interviewees were from three different divisions in DEWA. However, interviewees' names are kept as anonymous for ethical considerations. The research organization (DEWA) obtained multiple ISO certifications such as ISO 18404, and ISO 9001:2015, which guarantees the high quality of the organization's services, processes, and procedures. The number of people working for DEWA was quite large. Collecting information from each worker was impossible. This meant that the sample size had to be carefully chosen. Both time and points of contact reach were constraints for the study. For this reason, the study focused on two divisions and a single firm.

3. DATA ANALYSIS

3.1 Interview Analysis

Quality as a whole, which in technical terms can refer to a product or service that meets specified requirements or a defect-free product or service, assumes a high degree of importance as a critical element for gaining a competitive advantage. To construe, a company can develop quality as its core competence and a differentiation marker in a highly competitive and over-saturated market. Given the importance of quality, it is no surprise that quality management is necessary for most service-providing companies, such as Dubai Electricity and Water Authority (DEWA). Implementation of quality management can take the form of various standards and models, such as the International Organization for Standardization standards, the Malcolm Baldrige model, the European Foundation for Quality Management model, Deming Application Prize model, among others.

According to the interviewees, DEWA uses the Quality, Health, Safety, and Environment (QHSE) management system to enhance the quality of their operations and products, while also ensuring worker safety, managing the environmental effects of their processes, and increasing the sustainability of their operations. DEWA's QHSE management system aims to improve quality and reduce the possibility of occupational risk. DEWA emphasizes increasing internal communications at higher and lower levels, significantly increasing contacts at all levels of the organization. It also aims to ensure everyone is on the same page regarding quality standards.

Alongside the QHSE management system, DEWA, as informed by the interviewees, follows the TQM business model for total quality management. The model focuses on improving customer experience and satisfaction from top to bottom. Developing an organizational culture at DEWA with a solid customer-focused orientation and process centrism has been necessary to successfully implement the QHSE management system and the TQM business model. To ensure complete compatibility of the corporate culture with the principles of TQM, DEWA utilizes an integrated system that brings together all the different parts of the organization and focuses the efforts towards a shared mission, vision, and values.

Excellence is closely related to quality. Business excellence can be defined as developing and enhancing an organization's management procedures and operations to improve performance and create value for stakeholders. As a result, improving quality is the first step toward achieving excellence. DEWA is recognized for business excellence by several international organizations, including The European Foundation for Quality Management, which recently awarded the Sustainable Excellence certificate for Quality Management. According to the information gathered from the interviews, DEWA follows the European Foundation for Quality Management (EFQM) Excellence Model for assessing quality excellence. The EFQM Excellence model is a self-assessment framework for evaluating an organization's competencies and underperforming areas across its activities.

One central element that has reportedly come up through the interviews is the importance of enhanced and smooth communications to make

quality management a resounding success and achieve business excellence. Communication between the top management and the lower levels in the organization is crucially essential for achieving business excellence, as has been duly recognized at DEWA.

3.2 Findings

The following conclusions were also reached as a result of this research.

1. Subjects admitted that they were observable to a lesser extent than their criticality would indicate for all of the considerations discovered to be critical in TQM implementation.
2. Although their significance makes a difference, the critical motivational variables can be classified as devotion, execution, and evaluation, with each criterion playing an essential role in the TQM implementation segments.
3. Every framework has a summary of its connections with each managerial methodology and technique to prove how operations and maintenance assimilation is achieved. In brief, employees dedicate their time to exercises assigned to personal toolkits assimilated into TQM adoption.
4. To achieve effective TQM rollout, the first step in the process, dedication, requires support from top executives to specify the intent of the Performance measurement, such that a well-resourced brilliance advisory board communicates a clear view of the prototype across the organization to develop a sense of urgency that perhaps the transformation is necessary for the organization. This same management ensures that the versatility attributes and assimilation activities are resolved during project implementation to maintain the modification procedure throughout the TQM rollout.

4. DISCUSSION ON THE RESULTS

The results and findings of the present study will be helpful for DEWA and other organizations as well, as they can study the positive outcomes of TQM and decide to shift to TQM. Furthermore, since no such data was previously reported for the electrical company working in Dubai, the study can be further extended by other researchers who want to study the subject in different in-depth dimensions. Hence, the present study will be a foundation for the other relevant companies and

researchers interested in exploring the implementation and effectiveness of TQM in the working environment of UAE.

Integrating Total Quality Management with risk management is one crucial area that needs change. TQM and risk management are highly complementary and will significantly benefit from integration. This can be achieved by identifying all probable risks in the product at hand and designing the quality of the product in such a way that it should incorporate all the possible risks.

Integrating TQM with ISO could greatly benefit quality management and help DEWA achieve business excellence, with such integration also having the potential to improve organizational performance. Integrating TQM processes with standardization processes improves quality, inventory management, and competitiveness, all of which lead to improved organizational performance.

By combining TQM with risk management and ISO, DEWA could improve organizational performance by improving product quality, better inventory management, reducing redundancies and making production more time and cost-effective.

5. CONCLUSION

The project aimed to study the effectiveness of TQM and BEM, which is applied by the local-based public Dubai Electricity and Water Authority, DEWA. Since very few organizations working in UAE have been shifted to TQM, it is essential to explore what changes have been observed in the organizations that have adopted this along with the excellence model. The study provided a detailed insight into the TQM implemented by DEWA and other factors associated for boosting business excellence through the analysis of data collected from the concerned professionals of the company. The study would be helpful for DEWA as it will highlight the current strengths and weaknesses of the system implemented there. The company can improve its performance in various operations domains by working on weaknesses and strengthening the vital areas further. As well as for any other similar entities that would like to improve performance and sustain excellence.

6. RECOMMENDATIONS

In this section, we detail the steps the company should take to implement TQM and the Excellence

Business Model throughout the company. TQM is a process focused on the notion of creating a quality-focused organization. The quality-focused organization is hence involved in long term development and success. Firstly, it is essential to raise employees' level of understanding and provide them with the tools they need to keep management costs in check, businesses in the United Arab Emirates (UAE) should provide them with quality. Secondly, The necessity of quality management should be emphasized through frequent formal and informal training provided by the organization. Learning how to combine the Excellence Model and Total Quality Management effectively will be facilitated by this training and development. Thirdly, Businesses in the United Arab Emirates (UAE) would do well to implement strategies to solicit input and suggestions from their workers as part of their quality management processes. Employees should be rewarded for making valuable suggestions. Finally, with the rise of innovation and globalization, it is crucial for DEWA to constantly update their innovations. It would be essential for DEWA to stay up to date with their knowledge, research, and technological areas to excel in every part of their quality management. By focusing on innovation, in research areas and technologies, DEWA will have a first hand in staying ahead in compared to other organizations.

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