



**THE IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT
CHALLENGES / ISSUES AND ORGANIZATIONAL
PERFORMANCE OF ADVANCE MILITARY MAINTENANCE
REPAIR AND OVERHAUL CENTER IN UNITED ARAB
EMIRATES**



DOCTOR OF PHILOSOPHY

2024



Faculty of Technology Management and Technopreneurship

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Ahmed Hassan Ali Ibrahim Bisho
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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REPAIR AND OVERHAUL CENTER IN UNITED ARAB EMIRATES**

AHMED HASSAN ALI IBRAHIM BISHO



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2024

DECLARATION

I declare that this thesis entitled “The Implementation Of Total Quality Management Challenges / Issues And Organizational Performance Of Advance Military Maintenance Repair And Overhaul Center In United Arab Emirates” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.



Signature :

Name : AHMED HASSAN ALI IBRAHIIM BISHO

Date : October 20, 2024

اوتیورسیتی تیکنیکل ملیسیا ملاک

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

APPROVAL

I hereby declare that I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of Doctor of Philosophy.

Signature :

Supervisor Name : TS. DR. MOHD FAZLI BIN MOHD SAM

Date : October 20, 2024

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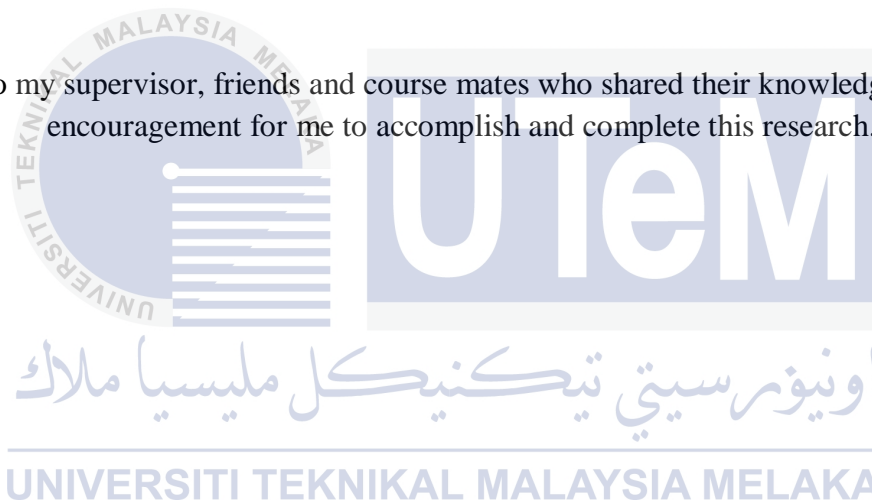
DEDICATION

This research paper is wholeheartedly dedicated to my beloved parents.

A special feeling of gratefulness to my loving parents, siblings, my wife and kids for being the constant source of my inspiration and motivation.

I will always appreciate them for giving me strength and persistently provide their infinite love, support, and guidance.

To my supervisor, friends and course mates who shared their knowledge and encouragement for me to accomplish and complete this research.



ABSTRACT

In the contemporary era, as the globalized globe becomes increasingly competitive, firms across all industries are diligently striving to ensure their survival by seeking for a competitive edge over their competitors. The intensification of competition within industries is likely to result in a corresponding increase in customer demand. In the context of evolving global conditions, businesses face intense competition and must adapt their understanding of quality and minimize product or service errors in order to secure a larger market share. This is particularly crucial given the rapid advancements in technology. By doing so, companies can not only survive and compete effectively, but also achieve their desired level of success and sustain it over time. In the given context, corporations initiated a competitive pursuit of quality, leading to the increased significance of the TQM implementation. The overall aim of this study is to assess the level of awareness and current implementation of TQM principles in the AMMROC, to analyze moderating effect of benefits of TQM and challenges to the application of TQM and the Organization performance in terms of stability, profitability, liquidity, management efficiency, customer satisfaction and Competitive advantage in the Advanced Military Maintenance Repair and Overhaul Center. The findings will serve as for improving organizational performance. Furthermore, the study applied a quantitative approach. Simple random sampling was implemented and used 310 respondents. The result revealed that current application of TQM Principles at Advance Military Maintenance Repair and Overhaul Center was 3.83 which shows that they are applying TQM. the benefits that may be realized from the use of TQM got 3.83 that the employees agreed on the benefits of TQM while 3.80 agreed that challenges occur the effective application of TQM. The organization performance is performing well. Moreover, it was found out that the variable "benefits" continues to be considered as it was determined to be a statistically significant predictor of TQM implementation in the initial regression study. There is significant impact of Total Quality Management and Organizational Performance. There is significant impact of Total Quality Management on Customer satisfaction. Benefits do not moderate the relationship between Total Quality Management and Organizational Performance. Benefits do not moderate the relationship between Total Quality Management and Customer satisfaction. Challenges moderates the relationship between Total Quality Management and Organizational Performance. Challenges moderates the relationship between Total Quality Management and Customer satisfaction. In line with the findings, the study contributes that TQM serves as a crucial catalyst for organizations in their endeavor to maintain and enhance client satisfaction. Globalization is a phenomenon that engenders heightened levels of competition and thus contributes to the improvement of product quality. TQM has emerged as a widely recognized and implemented operational methodology for enhancing competitiveness across all industries. The study aims to identify essential factors for enhancing the company's performance through the use of TQM. The strengths and weaknesses will be identified and addressed. Subsequently, the management can deliberate on the strategies and action plans that can be implemented to augment the firm operations

**KESAN PENGURUSAN KUALITI MENYELURUH TERHADAP PRESTASI ORGANISASI
PUSAT PENYELENGGARAAN PEMBAIKAN DAN BAIK PULIH TENGERA TERMAJU DI
EMIRIAH ARAB BERSATU**

ABSTRAK

Matlamat keseluruhan kajian ini adalah untuk menentukan sama ada dan bagaimana penggunaan Pengurusan Kualiti Menyeluruh (TQM) dapat meningkatkan prestasi organisasi di Pusat Pembaikan dan Baik pulih Penyelenggaraan Tentera Lanjutan (AMMROC) di Emiriah Arab Bersatu dengan menyiasat hubungan antara prestasi dan TQM. Terdapat sebab untuk mempercayai bahawa TQM boleh dan merupakan pendekatan yang berdaya maju untuk meningkatkan produktiviti dan prestasi. Prinsip TQM yang berpusat pada kepuasan pelanggan, orientasi proses dan penambahbaikan berterusan sangat serasi dengan gaya pengurusan yang berbeza. Tambahan pula, TQM ditakrifkan dalam rangka kerja teori pengurusan yang luas dan dimensinya diteliti. Dimensi ini akan dianalisis sedemikian rupa yang menerangkan model bagaimana organisasi boleh menggunakan TQM sebagai teori pengurusan. Analisis menyeluruh dimensi individu dan sumbangan unik masing-masing kepada prestasi organisasi akan dibuat. Peranan pengurus untuk melaksanakan prinsip dan amalan TQM akan dianalisis serta faktor yang menyumbang kepada kegagalan sebagai senarai semak perkara yang mesti dielakkan oleh pengurus untuk melaksanakan TQM dengan berkesan. Selain itu, kriteria di mana TQM boleh dinilai akan dibincangkan sebagai batu penjurong sistem pengukuran prestasi. Konsep pengurusan prestasi dan kesannya terhadap TQM akan dibincangkan dengan teliti dalam kajian ini. Maksud kualiti dan prestasi ditakrifkan dan dinilai dari segi komponen pengurusan prestasi. Dengan cara ini nilai asas dan kesan TQM mungkin ada pada pengurusan prestasi boleh ditentukan. Kajian ini akan menentukan sama ada dan bagaimana penggunaan TQM dapat meningkatkan prestasi organisasi di Advanced Military Maintenance Repair and Overhaul Center yang terletak di Emiriah Arab Bersatu dengan menyiasat hubungan antara prestasi dengan TQM. Tinjauan soal selidik berstruktur dijalankan berdasarkan lapan dimensi TQM yang akan dikenal pasti dalam kajian. Kajian ini dipandu oleh objektif berikut: Untuk menentukan prinsip TQM yang digunakan, untuk mendapatkan kesan pelaksanaan TQM terhadap prestasi perniagaan organisasi, dan untuk menentukan cabaran dalam pelaksanaan TQM.

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LIST OF ABBREVIATIONS

AMMROC	-	Advance Military Maintenance Repair and Overhaul Center
MBO	-	Management by Objectives
QA	-	Quality Assurance
QC	-	Quality Control
TQM	-	Total Quality Management
UAE	-	United Arab Emirates



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LIST OF PUBLICATIONS

The followings are the list of publications related to the work on this thesis:

Adem, M.K. and Viridi, S.S. (2020) 'The effect of TQM practices on operational performance: an empirical analysis of ISO 9001: 2008 certified manufacturing organizations in Ethiopia,' *The TQM Journal*, 33(2), pp. 407–440. <https://doi.org/10.1108/tqm-03-2019-0076>.

Aladwan, S.A.T. (2017) The impact of TQM and service employee satisfaction on government service quality: an empirical study in *The Jordanian public sector*. <https://etheses.bham.ac.uk/id/eprint/7221/>.

Alghamdi, F. (2018) 'Total Quality Management and Organizational Performance: A Possible Role of Organizational Culture,' *International Journal of Business Administration*, 9(4), p. 186. <https://doi.org/10.5430/ijba.v9n4p186>.

CHAPTER 1

INTRODUCTION

1.1 Background

This chapter presented an introduction of the research background, examining the potential enhancement of organizational performance in the Advanced Military Maintenance Repair and Overhaul Center (AMMROC) in the United Arab Emirates through the implementation of Total Quality Management (TQM). The investigation focused on establishing a connection between performance and TQM. The objective of this study was to verify the utilization of TQM methods in overcoming the problems associated with the implementation of TQM. The study made a substantial contribution to the successful implementation of TQM at AMMROC by assessing the level of awareness and present utilization of TQM among top management, middle managers, and employees.

In the contemporary era, as the globalized globe becomes increasingly competitive, firms across all industries are diligently striving to ensure their survival by seeking for a competitive edge over their competitors. The intensification of competition within industries is likely to result in a corresponding increase in customer demand. In the context of evolving global conditions, businesses face intense competition and must adapt their understanding of quality and minimize product or service errors in order to secure a larger market share. This is particularly crucial given the rapid advancements in technology. By doing so, companies can not only survive and compete effectively, but also achieve their desired level of success and sustain it over time.

In the given context, corporations initiated a competitive pursuit of quality, leading to the increased significance of the TQM methodology. TQM is defined as an amalgamation of participative management and collaborative teamwork, with the ultimate goal of producing products that are free from defects and ensuring customer satisfaction. TQM encompasses the integration of human factors and the interplay between quality and productivity. It entails a comprehensive approach aimed at enhancing performance across all levels and functions within an organization. During the 16th century, the term "performance" denoted the successful execution of military orders and instructions, in a manner distinct from its contemporary connotation. However, in contemporary discourse, the term "performance" is commonly employed to refer to the attainment of a certain objective as a result of deliberate planning and strategizing. In essence, performance refers to the results an employee achieves by effectively completing assigned tasks within a given timeframe. The performance of a business system can be characterized as the outcomes or operational achievements it exhibits throughout a specific timeframe. The evaluation of the extent to which management objectives are accomplished should be based on these outcomes.

The concept of TQM has garnered significant attention on a global scale in the contemporary era. The origins of this phenomenon may be traced back to both the United States and Japan, with its first adoption predominantly observed among select Japanese corporations in the immediate post-World War II. The increased achievements of Japanese corporations in the 1980s prompted organizations worldwide to recognize the imperative of using effective management techniques to maintain competitiveness (Lagrosen, 2012). Total quality management (TQM) represents a significant improvement upon conventional

corporate practices. The implementation of this strategy has been empirically validated as a means to ensure success in highly competitive global arenas. The transformation of an entire organization's culture and activities can only be achieved through the alteration of management's actions.

Based to a survey by Dale, which Muhammad Hamid et al. (2023) cited, TQM offers a number of benefits to manufacturing organizations. These benefits include improved customer satisfaction, elevated quality, increased employee involvement, strengthened teamwork, better working relationships, excellent communication, increased profitability, increased productivity, and increased market share.

According to Andi and quoted by Prihantoko (2021), performance is influenced by elements such as remuneration and benefits. This is because all activities and policy actions should be undertaken with the objective of attaining certain goals. The correlation between the adequacy of remuneration and benefits and the potential for achieving optimal employee performance is significant. In conjunction with remuneration and perks, performance is influenced by elements pertaining to skill and motivation. This implies that performance is manifested by the quality and quantity of work exhibited by individuals or groups engaged in a certain activity, which may be attributed to either inherent talents or skills acquired through the process of learning, as well as the motivation to excel.

Customer satisfaction is a measurement that determines customer happiness in terms of post purchase of services or product. It important in business performance because customer is a leading indicator business profit and sustainability. Loyal customer has high tendency that they will repeat purchase. Besides that, it also important because it will reduce

customer churn and increase customer lifetime value. Lastly, business organizations need to know that it is important to keep customer satisfied and loyal because it is cheaper to retain customers than acquire new ones. The business organizations need to keep their customer satisfied with their product or services by meeting the needs, wants and their demand so that the customer would not run away and keep using their product or services. Muhammad Arif Iqbal Shaharudin (2020).

Aurora et al. (2020) investigated the effects of TQM on employee work performance, with a specific focus on how pay variables moderate these effects. The study's findings demonstrate that the adoption of TQM has a substantial influence on the performance of employees in their work. Furthermore, compensation acts as a moderating factor, positively influencing the relationship between TQM and employee work performance.

The research conducted by Gun Jea Yu et al (2017) focused on examining the effects of TQM on company performance, as well as identifying the factors that drive the implementation of TQM. Additionally, the study also explored the situations that may influence the relationship between TQM and firm performance. The study revealed that the impact of TQM is more pronounced when a company adopts a proactive internal strategic approach and operates within the growth stage of the product lifecycle, as an external strategic component. In order to maximize the advantages of TQM, it is advisable for managers to proactively adopt TQM practices ahead of their competition.

Quality management techniques encompass a set of management practices that are closely linked to the performance of a business. Research has demonstrated that the use of Quality Management techniques within firms has resulted in improved performance.

Organizations that prioritize Quality Management techniques actively engage and inspire their staff to attain high-quality outcomes while prioritizing the fulfillment of customers' requirements. The use of Quality Management techniques positively impacts a company's performance. For a business to succeed, it is essential to integrate Quality Management (QM) procedures into its strategic management.

The assessment of performance plays a role in the achievement of organizational transformation initiatives as a whole, with a specific emphasis on TQM. The implementation of TQM has had a transformative impact on organizational operations. Consequently, numerous managers have come to acknowledge the necessity of aligning all fundamental business activities, including leadership roles, decision-making processes, and strategic planning, with the principles of quality. According to Lindsay as cited by G. Jacobson (2019) The concept of quality has undergone a transformation and is now referred to as performance excellence, which involves the alignment of all operations within an organization and adds to its overall effectiveness and sustainability.

Thus, this study aims to explain the importance of TQM by investigating the relationship between performance and TQM, particularly within the framework of the AMMROC located in the United Arab Emirates.

The AMMROC in the United Arab Emirates was chosen because it provides an appropriate environment for analyzing the changes in quality, customer service, and employee satisfaction management methods in a relatively new company. The purpose of this study is to investigate how TQM deployment can improve an organization's overall performance.

The partnership between Global Aerospace Logistics (GAL) and Advanced Military Maintenance, Repair, and Overhaul Center (AMMROC) focuses on depot maintenance at AMMROC's MRO facility in Al Ain, UAE. Khalid Al Breiki, GAL's Managing Director and EDGE Mission Support President, stated: "Given the ongoing challenges in logistics and supply chains within the current socio-economic landscape, GAL looks forward to improving efficiencies with AMMROC's support, ensuring the clients in the critical defense sector continue to receive the world-class maintenance and support they expect. Considering this, the researcher, who works for the center, wishes to support it by carrying out a study on TQM implementation to reduce internal company challenges.

1.2 Problem Statement

The AMMROC places emphasis on the comprehensive management of quality inside the organization, as well as the performance evaluation of its staff. TQM is a management style that emphasizes excellence and prioritizes the satisfaction of both employees and customers inside a business. AMMROC is strategically focused on achieving sustainable success through an assessment of the present implementation of TQM principles. This evaluation involves recognizing the practical mindset of staff, identifying the potential advantages that may be derived from the adoption of TQM, as well as identifying the primary barriers that hinder the effective implementation of TQM. This objective is attained by ensuring customer satisfaction and delivering advantages to all stakeholders inside the firm as well as to society as a whole.

In general, TQM is a philosophy of management that seeks to help companies fulfill stakeholder expectations and demands in an efficient and ethical way. Worldwide adoption