

Implication of Quality Management in Government Sector

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Abstract

The aim of this study is to focus on the implication of quality management in Consumer Protection Authority, presenting different views of studies which discussed the concept of quality management and the benefits gained from adopting such program. This paper also identifies 'total quality management system' and what is the difference from quality management. This study is giving example of organizations which adopted the quality system. Addressing three questions, the study explores:

- 1- How quality management affected the performance of the organization.
- 2- What are the benefits gained from quality program.
- 3- What are the challenges the organization may face.

Through detailed analysis of all processes of the sampled organization and how the quality management adoption fits to their practices. Furthermore, the study presents the significant points in the annual report gathered by the organization to measure the effectiveness of the Quality Management system and the satisfaction of the targeted customer and presenting the department experience after the adoption of Quality Management program. This research is implemented based on a literature review, a questioner, Heads of departments interviews, and the survey targeted 100 employees from different government entities. At the end of the study, the researcher is offering valuable recommendations and ensure any modification required to achieve the targeted quality standards done through the decision makers.

Key words: Consumer Protection Authority, quality management, performance, case study

Introduction

Quality management is a fundamental aspect of modern business practices, aimed at ensuring that products and services meet or exceed customer expectations. One approach to achieving this goal is Total Quality Management (TQM). According to (Janet Bautisa Smith, Robert Alvarez, 2020), TQM is a comprehensive and systematic approach that integrates all organizational functions and processes to achieve continuous improvement in product and services quality. Total Quality Management, often abbreviated as TQM and it is a holistic philosophy and approach to quality management that emphasize the involvement of all employees at every level of an organization to continuously improve products, services, process, and customer satisfaction. TQM observing beyond traditional quality control methods and focuses on fostering a culture of quality throughout an organization. It involves a commitment to meeting customer needs and expectations, reducing defects and errors, and optimizing operational efficiency.

Literature Review:

Introduction

This literature review delves into key aspects related to quality management(QM) and total quality management(TQM), emphasizing the definition of these concepts and exploring their connection to organizational performance. The review also identifies the components of TQM and investigates how different industries and sectors approach quality management. The authors examine existing perspectives on quality management, referencing various international standards adopted by organizations, with a specific focus on ISO9001.

The historical evolution of quality management is initially presented, followed by a presentation of divergent definitions of quality management. The review highlights various international standards, providing an in-depth explanation of ISO9001. Additionally, the study explores instances of organizations that have embraced this standard to comprehend the advantages and the ways in which its implementation contributes to heightened performance levels.

Numerous studies explore the application and management of quality in organizations, revealing a diversity of approaches. Some organizations gauge quality through metrics such as defect rates, rework costs, recall costs, scrap costs, and other related expenses. Conversely, alternative organizations measure quality performance through factors such as training initiatives, employee performance, employee involvement, and the leadership provided by management.

Three quality management principles advocated by Juran, a quality management evangelist, are contrasted with Deming's 14 principles for ensuring quality effectiveness within organizations, as recommended by (Benson, G. p. & Saraph, J. V., 1989). Deming's principles encompass establishing a clear purpose for improving products and services, adopting a new organizational philosophy, designing a dependence system that moves away from mass inspection, concluding business transactions through negotiated prices, continuously improving production and services systems, instituting innovative training methods, implementing modern supervision techniques, eliminating fear, breaking down barriers affecting employee work, removing numerical organization of work, abolishing standard work and numerical quotas, eliminating hidden barriers impacting hourly work, designing effective education and training programs, and creating a management environment that motivates all levels to achieve common objectives.

This study aims to investigate the adoption of Quality Management within the Consumer Protection Authority.

Achieving competitive advantage:

According to (Abbas, 2020), implementing a quality management system in an organization is asserted to lead the customer satisfaction and subsequent success, resulting in a higher market share. The adoption of quality management is seen to attain a competitive advantage, creating business value for customers, and fostering sustainability. Abbas emphasizes that the focal point for a firm should be the pursuit of competitive advantages through the implementation of a quality system.

Contrarily, Reitsperger in 1986 proposes that firms should strive for sustainable competitive advantage by cultivating expertise in continuous improvement. Reitsperger disagree with the studies conducted by Deming (1995), which advocate for a focus on improving quality rather than traditional success factors like market share, revenues, efficiency, and profit (Shirley J. Daniel and Wolf D. Reitsperger, 1994).

Examining the implications of firms embracing Total Quality Management (TQM) as a philosophy, a global perspective is adopted, comparing company studies from Greece, Mexico, and Spain (Bouranta, N., Psomas, E., Suarez-Barraza, M. F., & Jaca, C., 2019). The essential Total Quality Management (TQM) factors identified are consistent across the three involved countries and can be outlined as the follows: the quality practices of top management, process management, employee quality management, customer focus, and employee knowledge and education. The extent to which service organizations in various countries embrace these five key TQM factors differs. The findings also validate the certain TQM elements serve as precursors to performance focused on both customers and employees.

Quality management in government sector:

The widespread adoption of quality management in the government sector has become a global phenomenon, with governmental bodies worldwide recognizing its importance. Each government organization has its own motivation for embracing a quality system. Notably, China stands out as a prime example in this regard. According to (Yujuan Guo, Abe P. L. Jong & Andy C. L. Yeung, 2018), China's economic ascent within the World Trade Organization (TO) necessitated the application of quality standards in both government and private entities. This imperative was particularly compelling due to China being home to some of the most polluted cities globally. (Yujuan Guo, Abe P. L. Jong & Andy C. L. Yeung, 2018), highlighted the implementation of ISO14000, an environmental management standard, as an illustrative instance of the integration of quality standards into both Chinese public and private companies. (Alsuleimani, 2023), In the private sector, exemplified by Nama group implementation of quality practices across all facets, there has been a notable attainment of customer satisfaction through the provision of superior services. The initiation of a quality program has provided employees with valuable opportunities for training and development, leading to the enhancement of their skill set. According to (Alsuleimani, 2023), this has translated into a more positive and performance-driven (Alesandro Laureani & Jiju Antony, 2018) workforce. The dedication and performance of employees have significantly impacted the organization's reputation, allowing it to establish a strong presence in the market. Nama group emphasizes the importance of ensuring that employees feel deeply committed by delivering high-quality services and taking pride in

working within an environment where all activities are systematically monitored. Furthermore, Nama highlights that the adoption of quality management practices has resulted in increased productivity and a decrease in employee turnover. Additionally, quality management is identified as a catalyst for improving safety measures, schedule performance, and relationships with subcontractors.

Total Quality Management (TQM)- concept and history:

According to (Alexander S. Gillis, & Mary K.Pratt, 2023), Total Quality Management (TQM) is a systematic approach employed by businesses to address competitive and technical challenges comprehensively. Unlike a mere quality management system, TQM encompasses all facets of an organization. Kevin notes that TQM gained traction not only in Eastern European countries but also in emerging industrial nations, underscoring its connection to the broader quality movement and its comprehensive coverage within a firm. In essence, TQM serves as an approach aimed at enhancing the effectiveness and flexibility of businesses. When an organization embraces TQM, every individual within the company becomes actively involved, and all activities and operations are conducted in accordance with this system.

Evolution of TQM:

Described as an improvement program by (Su Mi Dahlgaard-Park, Lidia Reyes & Chi-Kuang Chen, 2018), the genesis of Total Quality Management(TQM) can be traced back to the late 1970s and early 1980s when companies in the USA and Japan faced a decline in their market shares. Responding to this challenge, various productivity improvement programs were initiated, and TQM emerged as a prominent choice. Notably, TQM found application not only in the manufacturing sector but also in the service industry, reflecting its versatility across different sectors.

Quality management- concept & history

According to (Alessandro Laureani & Jiju Antony, 2018), for organizations to enhance and refine their processes, it is crucial to adopt quality management practices to ensure that quality becomes an integral part of every aspect of the business. The authors also underscore the significance of business identifying their competitors, asserting that this is an additional rationale for the implementation of quality management. Furthermore, it contends that decision-makers acknowledge the pivotal role of high-quality production and services in establishing competitive advantages and achieving excellence in performance.

According to (Rumane, 2017), the concept of quality management emerged in the late 19th and early 20th centuries in both United States and Europe. The author argues that the roots of quality management can be tracked back to the period when craftsmen began organizing themselves into guilds and implementing procedural frameworks for the production of goods and services. During this era, Rumane underscores the importance of routine inspections as a standard practice for companies.

Quality Standards:

According to (Rogala, P., & Wawak, S., 2021), ISO 9000 encompasses a set of principles, standards, and measurement tools related to quality management, along with certification requirements. It serves as a framework to enhance organizational effectiveness by offering guidance on managing procedures and practices. Another quality standard, emphasized by the

writers is ISO 9000:2000, which comprises a collection of standards, tools, and principles. ISO 9000:2008, as outlined by (Rogala, P., & Wawak, S., 2021), provides guidance for organizations seeking to ensure that their products and services align with customer requirements.

The ISO 9000 standards family comprises several key components:

- ISO 9001:2008, outlining the requirements for quality management system.
- ISO 9000:2005, addressing fundamental concepts and language.
- ISO 9004:2009, focusing on enhancing the efficiency and effectiveness of a quality management system.
- ISO 19011:2011, providing guidance on auditing to verify the functionality of quality management systems.

As stated by (Rogala, P., & Wawak, S., 2021), the initial official release of the Quality Management System family occurred in 1987. Over the past two decades, this system has undergone three revisions, with the latest version introduced in 2008 (ISO 9001:2000 and 2008). This updated version incorporates excellent structures, promoting widespread adoption by various organizations.

(Othman, N., Mokhtar, S. S. M., & Asaad, M. N. M., 2017), Identifies the three characteristics of ISO 9001-2008:

1. Emphasis on the process orientation, following the Plan, Do, Check, Act (PDCA) model, with the preceding four steps being crucial factors for performance improvement.
2. Highlighting the eight principles of Quality Management, including the involvement of people, leadership, a process approach, customer focus, continual improvement, supplier relationships, a system approach, and a factual approach to decision-making.
3. Reflecting international consensus on effective management practices that result in high-quality products and services.

In the examination of the Consumer Protection Authority (CPA), the author will closely analyze which of these characteristics the authority has successfully implemented through it is a adoption of ISO 9001-2015.

ISO 9001:2008

Presently, there are two iterations of ISO 9001, namely ISO 9001:2008 and ISO 9001:2015, both released in September 2015. Organizations currently adhering to ISO 9001:2008 have been granted a three-year transition window to migrate to the updated version. As of September 2018, the transition period will conclude, rendering ISO 9001:2008 certificates obsolete. The development of the new version was prompted by challenges faced by higher education institutions, encompassing issues such as low productivity, escalating costs, financial constraints, employee job dissatisfaction, increased enrollment demands, and technological advancements (Othman, N., Mokhtar, S. S. M., & Asaad, M. N. M., 2017). In Malaysia, 106 higher education institutions have obtained certification under ISO 9001:2008, with only 47 being privately owned, while the remainder are government-owned. Swiftly adapting to the new versions poses a considerable challenge for institutions, hence the provision of a three-year transition period. Consequently, this paper aims to conduct a comparative analysis of the two versions of ISO 9001.

2.7 The effects of quality management:

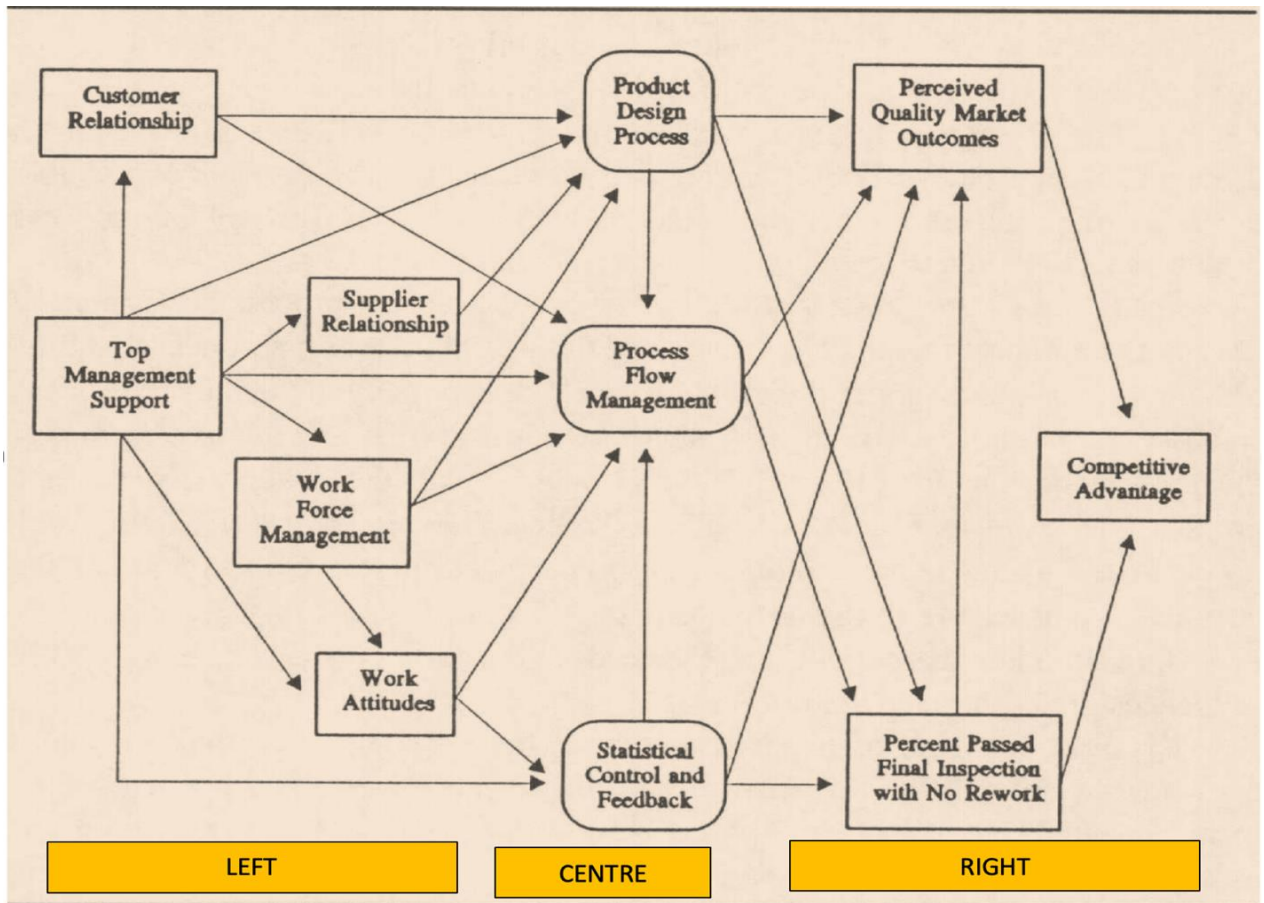


Figure 2: The relationship between Total Quality Management and performance (Alesandro Laureani& Jiju Antony, 2018)

On the left side of the illustration, there are five boxes symbolizing the integral components of total quality management infrastructure. Conversely, on the right side, another set of boxes represents the outcomes in terms of performance. Positioned at the center of the diagram are key practices that serve as the essence of quality management. These practices exert both direct and indirect influences on the organization’s outcomes and overall performance.

Different views and global comparison of studies:

The effectiveness of Total Quality Management (TQM) in organizations varies across different studies and regions. While some studies suggest that TQM leads to competitive advantages and success, especially in Japan, others indicate that certain Greece, Spain, and Mexico organizations did not gain tangible benefits (Bouranta, N., Psomas, E., Suarez-Barraza, M. F., & Jaca, C., 2019). The discrepancies in results stem from varying research designs, measurement criteria, and focus areas. Some studies solely examine financial performance, while others assess

different levels of organizational success. Mixed findings highlight the need for comprehensive studies that consider various aspects of TQM's impact on organizational performance.

Quality and innovation:

Organizations traditionally adopt quality programs to attain sustainable competitive advantages and meet customer satisfaction. However, in the past three decades, anew focus has emerged on ``innovation, `defined as the creation of unique products and services that offer greater value than previously recognized. According to (Sciarelli, M., Ghaith, M., & Tani, M., 2020), indicate a positive correlation between Quality Management (QM) practices and innovation. QM is seen as facilitating adoption to change in customer needs, minimizing non-value activities, and providing different avenues to reduce time and cost developing new products.

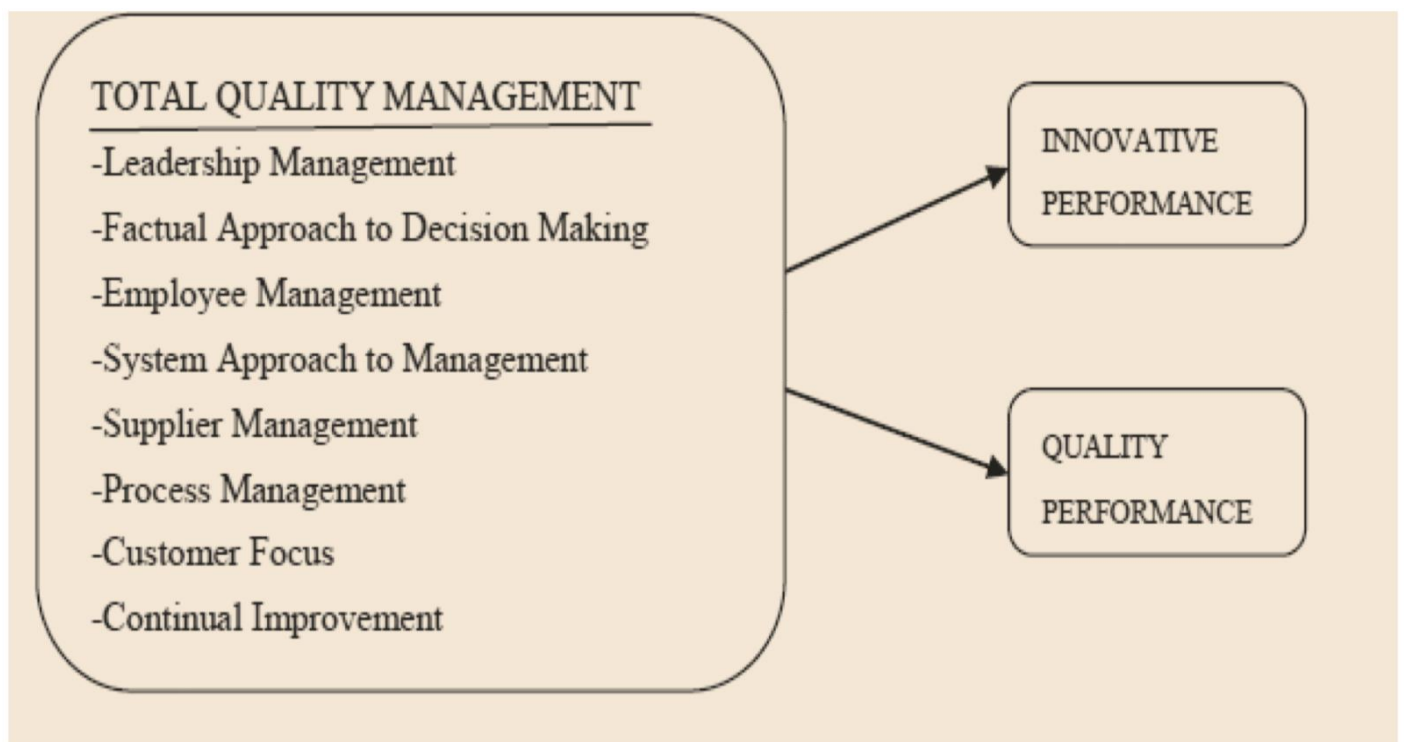


Figure 3: TQM is affecting positively on innovation performance (Sciarelli, M., Ghaith, M., & Tani, M., 2020)

Example of organizations adopted quality program in their practices:

Achieving a competitive edge is emphasized by (Abbas, 2020), through the implementation of quality management system within an organization. The researcher asserts that this approach not only leads to customer satisfaction but also positions the organization for success and increased market shares. The key to attaining a competitive advantage, according to the study, lies in the effective application of quality management, which creates business value for customers and fosters sustainability.

Contrary to the perspective of (Benson, G. p. & Saraph, J. V., 1989), who advocate for a focus on traditional success factors such as market share, revenues, efficiency, and profit. Where (Shirley J. Daniel and Wolf D. Reitsperger, 1994), argues for the pursuit of sustainable

competitive advantage through a commitment to continuous improvement. Reitsperger's and his colleague's viewpoint challenges the prevailing notion that organizations should primarily prioritize enhancing quality over the more conventional markers of success.

Examining the implications of firms adopting Total Quality Management (TQM) as a philosophical approach on a global scale involves comparing company studies from the Greece, Spain, and Mexico. It shows not clear observe of a competitive advantage resulting from TQM adoption (Bouranta, N., Psomas, E., Suarez-Barraza, M. F., & Jaca, C., 2019). Similarly, they could not ascertain tangible benefits from implementing TQM.

An illustration of organization implementing quality program in their operations is the learning and education institutions in Germany, as discussed by (Seyfried, M., Ansmann, M., & Pohlenz, P., 2019). The study emphasizes the integral connection between adoption of quality practice in education and learning institutions, and quality performance. The Germany government recognizes that the quality program fostering the educational team and students consistently exhibit positive correlation with the quality performance.

The implication of quality in government sector (case study):

The objective of this research is to enhance the comprehension of the implications of quality in the government sector. The researcher, employed in a government organization recognized as the one of the government firms implementing a quality system in Oman. This study is valuable for both students and government organizations aspiring to integrate quality into their practices.

Conducted as a qualitative case study, the primary data for this research is derived from the organization's existing documents, supplemented by interviews, engagement workshops, and collaborative sessions. The literature review presents various author's perspectives, aiming to articulate arguments about the relationship between quality and performance while identifying relevant principles.

In the finding section, the researcher initially utilizes the company's existing documents to gather foundational information. Subsequently, interview is conducted with three participants: two male participants (A, B) and one female participant(C). Participants A and B are the manager of interior region in the Consumer Protection Authority and his deputy, contribute to certain questions. Participant C, the Quality Assurance manager in Consumer Protection Authority, provides answers to most questions. Additionally, Questionnaire targeting 100 participants from government sector.

Qualitative Analysis:

The qualitative analysis encompasses distilling valuable insights from the responses gathered during interviews. From this analysis, distinct themes emerged based on the content of the interview responses.

Role of top management to implement quality program: Participants highlighted the importance of top management to adopt the quality program in their entities, providing the assurance of adoptions, and figure the enhancement aspects.

Awareness of Quality Program in Consumer Protection Authority: The awareness program needs continuous cross-functional training to assure the perfect implication.

Benefits of Quality Management Implementation: Enhanced public trust through improved service delivery and transparency. In addition, fosters cost efficiency, accountability, and compliance with regulations, ensuring optimal resource allocation.

Relationship Between Quality Management and Performance: Enhanced the performance through improved processes, customer satisfaction, and cost reduction, fostering strategic alignment, employee engagement, and sustained competitive advantage.

Quality Standards: ISO 900, are integral to implementing effective quality management systems, providing a structured framework for consistency and excellence. Alignment with these standards ensures regulatory compliance, enhances customer satisfaction, and contributes to overall organizational success and competitiveness.

Results After Quality Management Implementation: Establishes culture of continuous improvement, ultimately contributing to better governance and citizen satisfaction.

Quality Management Evaluation: Measurable KPIs, conduct regular audits, and gather citizen feedback to assess service satisfaction. Utilize data analysis, benchmarking, and employee involvement to ensure compliance, resources optimization, and a continuous improvement culture.

Challenges of Implementation for Quality Program: Resistance to change, Lack of IT support, and limited resources impacting the ability to streamline processes.

The Assessment of Quality Management Framework: Evaluating the elements such as leadership commitment, process efficiency, customer focus, and continuous improvement to ensure it is effectiveness in delivering high-quality outcomes and adherence to standards.

Relationship Between Quality Management and Decision-Making: It is interconnected as quality principles promote data-driven choices, continuous improvement, risk management, and a customer-focused approach. Integrating these principles enhances decision efficiency, effectiveness, and alignment with organizational goals.

4.4 Quantitative analysis:

The quantitative analysis comprised the statistical scrutiny of survey data through diverse methodologies. Descriptive statistics, t-test, correlation analysis, and ANOVA were utilized to extract insights from the collected quantitative data.

Descriptive Statistic:

Illustrating the collaboration between quality assurance and other department for quality practices. Question 7 was selected. The findings indicate that participants generally reported moderate level of collaboration (mean= 3.110) between their respective departments and the quality assurance department concerning quality practices.

Descriptive Statistics

	Q7
Valid	100
Missing	0
Mean	3.110
Std. Deviation	0.803
Minimum	1.000
Maximum	5.000

Table 3: Descriptive Statistic

Distribution Plots (Histogram):

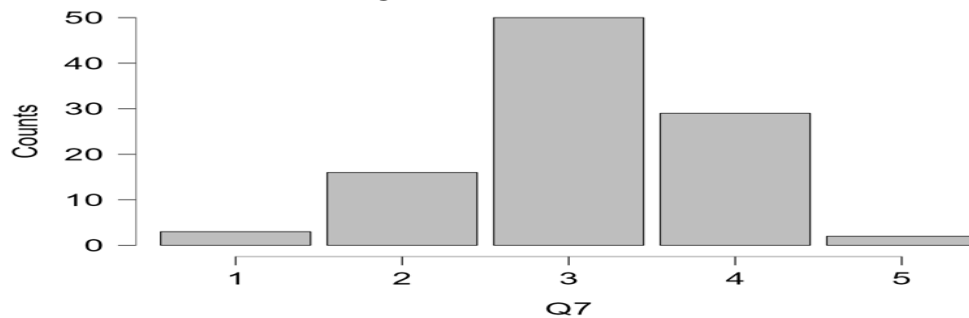


Figure 5: Q7 Histogram

Correlation Analysis:

Positive correlation between quality program contributes to employee's performance and satisfaction with current implementation of quality program.

An observed moderate positive correlation ($r = 0.361$) suggests a connection between the level of contribution by the quality program contribute to employee's performance and the degree of satisfaction from the current adoption of quality program.

Pearson's Correlations

Variable	Q6	Q12
1. Q6	Pearson's r —	
	p-value —	
2. Q12	Pearson's r 0.361 ***	—
	p-value < .001	—

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4: Q6 Vs Q12

ANOVA Analysis:

There was a lack of statistically significant variation in how quality program activities are perceived in terms of integration within the overall enterprise quality management program across various departments.

ANOVA - Q5

Cases	Sum of Squares	df	Mean Square	F	p
Q3	11.782	8	1.473	1.741	0.099
Residuals	76.968	91	0.846		

Note. Type III Sum of Squares

Table 5: Q5 ANOVA

Interpretation and Discussion of Findings

The research at Consumer Protection Authority in Oman explores the integration of quality management practices through both qualitative and quantitative analyses. Qualitative, the study reveals a recognition of quality program importance in advancing employees performance and overall procedure within the organization.

The qualitative findings also highlight that, while quality management is well-positioned to provide assurance and insights on implementation of quality program effectiveness, there exist a gap between it is potential role and current execution. Quantitatively, the study indicates suboptimal collaboration levels, suggesting challenges in integrating various responsibilities, including communication gaps and resistance to change. Overcoming these challenges is crucial for improving the overall effectiveness of quality management practices.

Moreover, the research suggests that strengthening quality program role in government sector is projected to bring concrete benefits, aligning with previous research indicating enhanced control effectiveness, reduced cost, and increase operational efficiency through effective integration with quality assurance department and overall departments within the entity. Overall, the study provides valuable insights into areas of alignment, challenges, and potential strategies for improving the implementation of quality program at Consumer protection Authority in Oman.

5.2 Recommendations:

- In the realm of training, government organizations should redefine roles concerning both training budget and programs. Initially, the training budget ought to be formulated to accommodate the maximum number of employees, distinct from other projects within the organization. It is crucial to view training not merely as a cost but as an investment project for the organization, recognizing that human resource represent a valuable asset. Consequently, allocating resources to training program is a strategic investment in enhancing the skills of employees. Additionally, the current practice of fixing and designing training program at the beginning of each year lacks flexibility. It is recommended to introduce flexibility in program design based on the number of participating employees and the frequency of program implementation.
- It is advisable to grant the quality team within government organizations more authority, empowering them with the capability to issue specific directives to departments that exhibit errors and delays in their work.

- The restricted authority currently imposed on certain areas within the organization should be expanded for the quality management team, allowing them access to additional part of the organization.
- Addressing employee turnover requires immediate intervention from top management. The loss of skilled personnel not only impacts the ministry but also represents a significant financial setback for the government. The quality team should conduct a thorough investigation to identify the root causes of this issue and propose effective solutions.

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