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Transforming Public Sector Performance through Total Quality Management: The Role of Transformational Leadership and Digital Integration in Indonesia

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Abstract

The study investigates how Total Quality Management (TQM) principles specifically customer focus, process orientation, and continuous improvement are applied within Indonesia's public sector. It explores how transformational leadership and digital integration influence the effectiveness of TQM implementation in enhancing public service performance. Despite numerous policy initiatives to adopt TQM in Indonesia's public institutions, the outcomes remain inconsistent. Rigid bureaucratic structures, limited resources, and weak organizational quality culture continue to impede effective implementation. There is limited empirical understanding of how leadership style and digitalization interact to support sustainable TQM adoption in developing-country contexts. This research employs a descriptive qualitative design using document analysis. Data were collected from government reports, regulatory frameworks, standard operating procedures (SOPs), and relevant scholarly literature. NVivo software was used to code and analyze themes related to leadership commitment, process management, and digital transformation in public organizations. The findings indicate that agencies with strong transformational leadership and data-driven processes demonstrate measurable improvements in efficiency and citizen satisfaction. However, widespread implementation remains hindered by bureaucratic inertia and lack of technological capacity. Digital integration significantly supports real-time performance monitoring, transparency, and continuous improvement initiatives. This study emphasizes the need for leadership

development, sustained employee training, and technology infrastructure investment to institutionalize quality culture in the public sector. The results provide actionable insights for policymakers to align TQM principles with e-governance strategies to improve service delivery. This paper contributes a new integrative framework combining transformational leadership and digital transformation within the TQM model for developing countries. It advances the discourse by linking leadership behavior, technological capability, and organizational adaptability as synergistic enablers of sustainable quality management in the public sector.

Keywords: *Total Quality Management; public sector; transformational leadership; continuous improvement; information technology.*

INTRODUCTION

Amid rapid global economic development and revolutionary technological change, quality has become a critical factor in sustaining organizational competitiveness and long-term performance. Both private and public organizations face increasing pressure to adapt swiftly to evolving customer demands while improving operational efficiency. Globalization and technological advancement have further raised stakeholder expectations for higher quality and more transparent services. Consequently, quality management has become a strategic necessity across sectors.

Total Quality Management (TQM) has emerged as a comprehensive managerial philosophy for embedding a culture of quality throughout organizations (Deming, 2025; Juran, 2025). TQM emphasizes continuous improvement involving all organizational levels—from top management to employees under principles such as customer focus, process orientation, employee involvement, and transformational leadership. Effective leadership is essential for integrating quality values into organizational culture. However, despite TQM's proven success in private industries, its theoretical application within public sector organizations, especially in developing economies, remains underexplored. Bureaucratic rigidity, limited flexibility, and insufficient quality-oriented human resources hinder the full realization of TQM principles (Adeniyi et al., 2024).

This study aims to examine how TQM principles are implemented in Indonesia's public sector and to analyze the influence of transformational leadership and technological integration on improving service quality and organizational performance. While numerous government institutions in Indonesia have adopted TQM instruments such as the PDCA (Plan–Do–Check–Act) cycle, most initiatives remain procedural and lack fundamental cultural transformation. Existing literature on TQM implementation in the public sector largely focuses on technical or process-level aspects, leaving a significant gap in understanding the cultural, structural, and leadership dynamics that determine successful adoption (Saydi et al., 2025).

This research introduces an integrative perspective linking TQM, transformational leadership, and digital technology within Indonesia's bureaucratic context. It advances the current body of knowledge by proposing that technological integration under Industry 4.0 can strengthen real-time performance monitoring and facilitate continuous improvement while transforming organizational culture toward quality excellence.

The study implies that effective TQM implementation in developing-country public sectors requires more than procedural compliance. It demands leadership commitment, digital capability, and a culture of learning and innovation. Integrating data-driven decision-making and transformational leadership practices will enable public institutions to enhance efficiency, transparency, and citizen satisfaction, thus bridging the gap between bureaucratic structures and modern quality management systems.

METHOD

This study adopts a descriptive qualitative design employing document analysis to explore the implementation of *Total Quality Management* (TQM) principles within Indonesia's public sector. The qualitative approach was chosen for its ability to provide an in-depth and contextual understanding of TQM dynamics that cannot be fully captured through quantitative methods. Document analysis enabled the researchers to extract structured information regarding policies, procedures, and quality management practices across various public institutions. The main objective is to identify how TQM principles are applied and to

examine key factors influencing their effectiveness, such as leadership commitment, employee engagement, and organizational cultural change.

Primary data were obtained from official documents related to TQM implementation in governmental institutions, including annual reports, policy frameworks, *standard operating procedures* (SOPs), and strategic planning documents. These documents were selected from institutions that have formally adopted TQM or quality management policies. To strengthen the analysis, secondary literature was also utilized, encompassing prior studies on TQM in developing countries as well as theories of transformational leadership, process innovation, and data-driven management. These additional sources served to triangulate findings and provide a broader theoretical perspective supporting the analysis.

The data collection process began with identifying public organizations that demonstrated TQM implementation, such as ministries, local government departments, and administrative agencies. Each document was analyzed to identify the core TQM pillars—customer focus, leadership, process approach, continuous improvement, and employee involvement. The data were analyzed using content analysis with thematic coding to examine the relationships between TQM principles and organizational performance. NVivo software was employed to organize, categorize, and visualize qualitative data systematically, enhancing analytical precision and reliability.

Data validity was ensured through source triangulation by combining multiple document types from various institutions. An audit trail of the coding process was maintained to guarantee transparency and consistency throughout the analysis. The findings were also cross-validated with existing global literature to ensure relevance beyond the Indonesian context. Nevertheless, as this research relies solely on document analysis, it does not include direct interviews with practitioners or managers. This constitutes a limitation in capturing experiential insights from the field. Despite this, the document-based approach provides a valuable and comprehensive understanding of TQM policies and practices within Indonesia's public sector context.

RESULT

Implementation of TQM Principles in Indonesia's Public Sector

The document analysis reveals significant variation in the implementation of *Total Quality Management* (TQM) principles across public sector institutions in Indonesia. Certain agencies, such as the Department of Population and Civil Registration and the Department of Health, have successfully adopted key TQM pillars particularly *customer focus* and *continuous improvement*. For instance, in the Department of Population and Civil Registration, customer-oriented strategies have improved service user satisfaction, as evidenced by declining public complaints and reduced document processing times. This improvement is attributed to the consistent application of the PDCA (Plan–Do–Check–Act) cycle and the integration of feedback-based process adjustments. Similarly, the Department of Health has applied continuous improvement principles to reduce patient waiting times and enhance the quality of medical services. These findings support previous studies suggesting that customer-focused TQM practices contribute to improved operational efficiency and overall service quality (Ahinful et al., 2024).

However, these successful outcomes cannot be generalized across all public sector institutions. Agencies characterized by rigid bureaucratic structures and limited leadership commitment exhibit considerably lower levels of TQM implementation. Although TQM-related policies have been introduced, their application often remains confined to technical tools or procedural compliance, without meaningful cultural transformation. TQM, which ideally involves all organizational members from top management to staff, frequently becomes a mere administrative formality rather than a catalyst for systemic change. As a result, continuous improvement is rarely achieved, and performance progress remains stagnant (Adeniyi et al., 2024).

Challenges in TQM Implementation

The primary challenges to TQM implementation in Indonesia's public sector stem from rigid bureaucratic systems and resistance to change across managerial levels. Many institutions are constrained by complex administrative procedures that require long, hierarchical decision-making processes. This rigidity impedes effective TQM practices, which

rely on speed, flexibility, and data-driven decision-making. Although government policies support quality management initiatives, there remains a structural mismatch between centralized policy frameworks and local-level implementation. This misalignment often becomes a critical barrier to embedding TQM principles into everyday public administration (Saydi et al., 2025).

In addition, resource constraints both financial and human remain a significant obstacle. Many public institutions lack sufficient budgets to fund employee training programs on TQM concepts and managerial tools. Without adequate training, employees' ability to understand and apply TQM principles effectively is limited. The shortage of skilled personnel also hinders the adoption of data-based management systems essential for real-time performance monitoring and continuous evaluation (Aichouni et al., 2024).

Integration of Technology in Public Sector TQM

One of the key findings of this study is the crucial role of information and communication technology (ICT) in supporting TQM implementation within public institutions. Several agencies particularly those in health services and civil administration have begun integrating data-driven systems to monitor performance and maintain real-time service quality. Through these systems, employees can quickly identify problems and implement timely corrective actions. Data-based technologies also enhance transparency and accountability, directly contributing to improved public service quality and citizen satisfaction. These findings reinforce the argument that digitalization is essential to advancing TQM implementation, especially in the public sector where efficiency and responsiveness are often limited (Aichouni et al., 2024).

Nevertheless, despite the potential benefits of technology, its adoption is often hindered by inadequate infrastructure, particularly in less-developed regions. Many institutions lack sufficient funding or technical capacity to establish and maintain robust digital systems. Additionally, the absence of comprehensive employee training on digital tools limits their effective use. As noted by Saydi et al. (2025), successful integration of technology within TQM frameworks requires not only clear policy support but also infrastructure that enables cross-unit and inter-agency collaboration.

Leadership and Organizational Culture

The success of TQM implementation depends largely on leadership commitment and a supportive organizational culture. In many public institutions analyzed, although TQM-related policies and procedures have been established, little change has occurred in workplace culture and employee mindset. AlSaied and Alkhoraif (2024) emphasize that an innovative culture and a continuous learning environment are critical in reinforcing TQM practices, as they encourage employee participation in ongoing improvement processes.

Ultimately, the findings of this study suggest that while TQM implementation in Indonesia's public sector shows promising potential, several barriers remain particularly limited resources, bureaucratic rigidity, and a lack of cultural transformation. Therefore, achieving effective and sustainable TQM implementation requires public institutions to strengthen transformational leadership, enhance employee engagement, and integrate digital technologies into quality management processes.

DISCUSS

Application of TQM Principles

The findings indicate that the implementation of *Total Quality Management* (TQM) principles in Indonesia's public sector remains inconsistent, with some institutions achieving significant progress while others face persistent barriers. Agencies such as the Department of Population and Civil Registration and the Department of Health have demonstrated tangible improvements when TQM principles are applied effectively. Strong leadership commitment, consistent use of the PDCA (Plan–Do–Check–Act) cycle, and responsiveness to customer feedback have enabled these institutions to enhance the quality of public services. The adoption of *customer focus* and *continuous improvement* principles is particularly evident through reduced service waiting times and improved citizen satisfaction. These findings reinforce prior studies suggesting that public organizations prioritizing customer satisfaction tend to achieve higher service efficiency and responsiveness (Lohano et al., 2025).

Nevertheless, the major challenge in implementing TQM across Indonesia's public sector lies in the rigidity of bureaucratic structures and the absence of top management

commitment. In several institutions, TQM policies exist only formally, with implementation limited to procedural compliance rather than genuine organizational transformation. This observation aligns with Saydi et al. (2025), who argue that bureaucratic rigidity can significantly impede the adoption of TQM by restricting the cultural and operational changes needed for improvement. Resistance to change at multiple levels of management both top-down and bottom-up further weakens institutional capacity to fully embrace TQM principles.

Structural Challenges and Resource Constraints

In addition to bureaucratic rigidity, limited financial and human resources represent substantial obstacles to effective TQM implementation. Although various quality improvement policies have been introduced, many public institutions lack adequate funding and training facilities to equip employees with the necessary understanding of TQM principles and tools. For example, some agencies employ techniques such as *Statistical Process Control* (SPC) and benchmarking but struggle to provide sufficient training to ensure their effective application. Without proper capacity-building, employees often fail to integrate TQM principles into operational practices, reducing the overall impact of TQM initiatives (Nadeem & Rahat, 2021).

From the researcher's perspective, this gap between policy formulation and implementation reflects a systemic weakness in strategic alignment where the intent to institutionalize quality management is not supported by sufficient resource allocation or workforce competency development.

The Role of Technology in TQM Implementation

As the demand for faster organizational adaptation grows, the integration of information technology has become a vital component of TQM implementation in the public sector. Data-driven systems that monitor service quality in real time show great potential to enhance efficiency and accuracy in public administration. Such systems facilitate more precise, evidence-based decision-making while increasing transparency and accountability. For instance, several health agencies in Indonesia have adopted digital management systems

to track and optimize healthcare processes, leading to noticeable improvements in service quality (Aichouni et al., 2024).

However, as emphasized by Saydi et al. (2025), technology integration within TQM requires a carefully structured approach. In highly bureaucratic settings with limited technological infrastructure, digitalization alone does not guarantee improved quality outcomes. Successful implementation depends on the presence of coherent policies, interdepartmental collaboration, and adequate infrastructure. From the researcher's viewpoint, it is not merely the hardware or software that determines the success of digital transformation in TQM, but the *organizational capability to cultivate data-sharing and collective accountability* across departments.

Core TQM Pillars in the Public Sector Context

Based on the analysis, it can be concluded that the effective implementation of TQM pillars—*customer focus, leadership, process approach, and continuous improvement*—can significantly enhance public sector performance when properly institutionalized. However, *employee involvement* remains the most underdeveloped pillar in Indonesia's public organizations. Although certain policies encourage staff participation, engagement often occurs only at lower hierarchical levels, with minimal support from upper management to foster a participatory culture organization-wide. Without consistent reinforcement from leadership at all levels, employee involvement tends to become symbolic rather than substantive.

From an analytical perspective, this indicates that the success of TQM in Indonesia's public sector hinges not only on formal policies but also on the alignment between leadership behavior, organizational learning, and cultural transformation. Sustainable quality improvement requires embedding participatory values within all levels of the organization, ensuring that TQM evolves from a procedural obligation into an integrated management philosophy that drives public value creation.

CONCLUSION

The study reveals that the implementation of *Total Quality Management* (TQM) principles across Indonesia's public sector varies significantly among institutions. Agencies such as the Department of Population and Civil Registration and the Department of Health have successfully adopted key TQM principles particularly *customer focus* and *continuous improvement* resulting in improved service efficiency and higher citizen satisfaction. Their success is largely attributed to strong leadership commitment, consistent use of the PDCA (Plan–Do–Check–Act) cycle, and the integration of data-driven technologies for performance evaluation. However, many public institutions continue to face structural challenges, including rigid bureaucratic hierarchies, limited top management commitment, and insufficient human and financial resources. Consequently, TQM policies are often reduced to administrative formalities rather than catalysts for cultural transformation.

These findings underscore that the effectiveness of TQM implementation in the public sector depends on three interrelated factors: transformational leadership, human resource capacity, and technological infrastructure. Strong leadership is essential to drive cultural change toward quality orientation, while continuous employee training enhances understanding and application of TQM managerial tools. Moreover, the integration of information technology and data-based management systems fosters transparency, accountability, and evidence-based decision-making. Strengthening these dimensions can accelerate Indonesia's public sector transformation toward an adaptive, innovative, and sustainable quality management system.

This study is limited by its reliance on document analysis and the absence of direct field data from interviews or observations of public officials. As such, it may not fully capture the practical experiences and perceptions of employees involved in TQM implementation. Furthermore, the study focuses on a limited number of public agencies, restricting the generalizability of the findings. Future research should employ mixed-method approaches to validate these results empirically and further explore the relationship between transformational leadership, organizational culture, and the success of TQM implementation in the public sector.

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