



TOTAL QUALITY MANAGEMENT AND ORGANIZATIONAL EXCELLENCE IN HOSPITALS

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ABSTRACT

Total Quality Management (TQM) has emerged as a strategic imperative for healthcare organizations seeking to enhance service quality, operational efficiency, and patient outcomes in an increasingly competitive and resource-constrained environment. This study investigates the impact of Total Quality Management practices on organizational excellence in hospitals, examining the relationship between critical TQM dimensions—leadership commitment, continuous improvement, patient-centered care, employee involvement, process management, and data-driven decision-making—and hospital performance outcomes. Utilizing a mixed-methods approach, the research combined quantitative data from a survey of 320 healthcare professionals across 12 public and private hospitals with qualitative insights from 18 in-depth interviews with hospital administrators, quality managers, and department heads. Organizational excellence was assessed through metrics of patient safety, clinical outcomes, patient satisfaction, operational efficiency, and employee engagement. The findings reveal a statistically significant positive correlation between the overall implementation level of TQM practices and organizational excellence ($r = 0.78$, $p < 0.001$). Leadership commitment emerged as the strongest predictor of organizational excellence, followed by continuous improvement and patient-centered care. However, the study also identified significant barriers, including resistance to cultural change, insufficient training and awareness, inadequate resource allocation, and weak incentive systems. Qualitative data highlighted a persistent gap between policy-level commitment to quality and frontline implementation realities. Based on these results, the paper provides a set of strategic recommendations for hospital administrators and policymakers, focusing on strengthening leadership commitment, fostering a quality-oriented culture, investing in continuous workforce development, and establishing robust quality measurement and feedback systems to fully leverage TQM for achieving organizational excellence in healthcare settings.

KEYWORDS: Total Quality Management, Organizational Excellence, Hospital Performance, Healthcare Quality, Patient Safety, Continuous Improvement, Leadership Commitment, Patient-Centered Care.

1. INTRODUCTION

1.1. Background of the Study

In the contemporary healthcare landscape, the pursuit of quality has transcended being a mere regulatory obligation to become a fundamental determinant of organizational survival and success. Healthcare organizations worldwide face unprecedented pressures to deliver high-quality care while simultaneously managing escalating costs, addressing workforce shortages, and meeting increasingly sophisticated patient expectations. Total Quality Management (TQM) has emerged as a comprehensive strategic approach to address these multifaceted challenges, offering a systematic framework for continuous improvement that engages all members of an organization in refining processes, products, services, and organizational culture.

TQM, as a management philosophy, is rooted in the foundational work of quality pioneers such as W. Edwards Deming, Joseph Juran, and Philip Crosby. Deming's 14 Points for Management, which emphasize principles such as driving out fear, breaking down barriers between departments, and instituting leadership, have provided the conceptual bedrock for TQM implementation across industries. In the healthcare context, TQM represents a paradigm shift from traditional quality assurance—which focuses on inspection and error detection—to a proactive, prevention-oriented approach that embeds quality into every aspect of organizational operations.

The concept of organizational excellence, closely linked to TQM, refers to the capacity of an organization to consistently achieve superior performance outcomes across multiple dimensions, including clinical effectiveness, patient safety, operational efficiency, and stakeholder satisfaction. Various frameworks have been developed to operationalize organizational excellence in healthcare, including the Malcolm Baldrige National Quality Award (MBNQA) criteria in the United States and the European Foundation for Quality Management (EFQM) Excellence Model in Europe. These frameworks provide systematic approaches for self-assessment, benchmarking, and continuous improvement, enabling healthcare organizations to identify strengths, address gaps, and pursue excellence in a structured manner.

Within this global context, hospitals—as the most complex and resource-intensive components of healthcare systems—represent critical arenas for TQM implementation and organizational excellence. The imperative for quality improvement in hospitals is particularly acute in developing countries, where resource constraints, infrastructural challenges, and high disease burdens amplify the consequences of poor quality care. Despite the growing body of evidence supporting TQM in healthcare, significant gaps remain



in understanding how specific TQM practices translate into measurable organizational excellence outcomes, particularly in diverse healthcare contexts.

1.2. Problem Statement

Despite the widespread recognition of TQM as a driver of organizational excellence, there exists a palpable gap in understanding how the specific adoption and implementation of TQM practices within hospitals influences overall organizational performance. Healthcare organizations face persistent challenges including medical errors, patient dissatisfaction, inefficient processes, high staff turnover, and suboptimal clinical outcomes. These challenges are often compounded by fragmented quality improvement efforts, insufficient leadership commitment, and a lack of integration between quality initiatives and strategic organizational goals.

The problem is particularly acute in hospitals where TQM implementation remains superficial—limited to the adoption of quality tools and techniques without the accompanying cultural and structural transformation necessary for sustainable improvement. There is often a disconnect between policy-level commitment to quality and the realities of frontline implementation, resulting in what can be described as "quality in name only." This gap between aspiration and achievement underscores the need for rigorous empirical investigation into the mechanisms through which TQM practices drive organizational excellence, the barriers that impede successful implementation, and the contextual factors that moderate the relationship between TQM and performance outcomes.

Therefore, a critical investigation is needed to determine whether and how TQM practices—through dimensions such as leadership commitment, continuous improvement, patient-centered care, employee involvement, process management, and data-driven decision-making—can enhance organizational excellence in hospitals, as measured by patient safety, clinical outcomes, patient satisfaction, operational efficiency, and employee engagement.

1.3. Research Objectives

This study aims to:

1. Assess the current level of TQM implementation in hospitals across its key dimensions.
2. Evaluate the perceived level of organizational excellence in these hospitals.
3. Examine the relationship between TQM implementation and organizational excellence.
4. Identify the key challenges and barriers hindering effective TQM implementation in hospital settings.
5. Propose evidence-based recommendations to guide hospital administrators and policymakers in leveraging TQM to achieve organizational excellence.

1.4. Research Questions

1. What is the extent of implementation of TQM practices in hospitals?
2. How do healthcare professionals perceive the level of organizational excellence in their hospitals?
3. Is there a statistically significant relationship between TQM implementation and organizational excellence?
4. What are the primary facilitators and obstacles to successful TQM implementation in hospital contexts?

1.5. Significance of the Study

This research holds significance for multiple stakeholders. For hospital administrators and quality managers, it provides empirical evidence to inform quality improvement investments and strategy formulation. For healthcare policymakers, it offers insights into the systemic enablers and barriers that shape TQM effectiveness, informing regulatory and support mechanisms. For healthcare professionals, it highlights the tangible benefits of TQM practices and identifies areas for skill development and engagement. For the academic community, it contributes to the burgeoning literature on TQM in healthcare, particularly in non-Western contexts and within the specialized domain of hospital quality management.

1.6. Structure of the Paper

This paper is organized into six chapters. Following this introduction, Chapter Two presents a review of relevant literature. Chapter Three details the research methodology. Chapter Four presents the results and findings, and Chapter Five discusses their implications. Finally, Chapter Six offers a conclusion, specific recommendations, and notes the study's limitations.

2. LITERATURE REVIEW

2.1. Conceptual Framework of Total Quality Management

Total Quality Management is a strategic management philosophy that focuses on customer satisfaction, continuous improvement, and the engagement of all organizational members in quality enhancement efforts. TQM is distinct from traditional quality control approaches in its emphasis on prevention rather than detection, its systemic perspective on quality, and its recognition that quality is the responsibility of every employee, not just quality assurance departments.

The conceptual foundations of TQM can be traced to several key thinkers and their contributions:



W. Edwards Deming's 14 Points provide a comprehensive management philosophy emphasizing constancy of purpose, adoption of the new philosophy, ceasing dependence on inspection, and driving out fear. Deming's "Chain Reaction" model describes how quality improvement reduces waste and rework, leading to improved productivity, lower costs, and enhanced customer satisfaction.

Joseph Juran's Trilogy comprises quality planning, quality control, and quality improvement. Juran emphasized the importance of top management commitment, the project-by-project approach to improvement, and the concept of "fitness for use" as the definition of quality.

Philip Crosby's Zero Defects philosophy emphasized "doing it right the first time" and introduced the concept of "quality is free" — the idea that the costs of poor quality far exceed the investments required for quality improvement.

In the healthcare context, TQM has been operationalized through several key dimensions that represent the core practices and principles of quality management:

- 1. Leadership Commitment:** The active involvement of senior leadership in setting quality vision, allocating resources, and modeling quality-oriented behaviors.
- 2. Continuous Improvement:** The systematic, ongoing effort to improve processes, services, and outcomes through iterative cycles of planning, implementation, evaluation, and refinement.
- 3. Patient-Centered Care:** The orientation of all organizational activities toward meeting and exceeding patient needs, preferences, and expectations.
- 4. Employee Involvement:** The engagement of all staff members in quality improvement efforts, supported by appropriate training, empowerment, and recognition.
- 5. Process Management:** The systematic approach to designing, controlling, and improving organizational processes to achieve consistent, high-quality outcomes.
- 6. Data-Driven Decision-Making:** The use of quality metrics, performance indicators, and analytical methods to inform decisions and measure the effectiveness of improvement initiatives.

2.2. Organizational Excellence in Healthcare

Organizational excellence in healthcare refers to the sustained achievement of superior performance across multiple dimensions of organizational functioning. It represents a holistic concept that encompasses clinical, operational, and experiential outcomes, reflecting the complex and multidimensional nature of healthcare quality.

Several established frameworks have been developed to conceptualize and measure organizational excellence in healthcare:

The Malcolm Baldrige National Quality Award (MBNQA) Framework provides a systems perspective for understanding performance management, encompassing seven criteria: leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; operations focus; and results. The framework has been widely applied in healthcare settings to assess organizational performance and identify improvement opportunities.

The European Foundation for Quality Management (EFQM) Excellence Model comprises nine criteria organized into "enablers" (leadership, strategy, people, partnerships and resources, processes, products and services) and "results" (people results, customer results, society results, business results). The model emphasizes self-assessment, continuous improvement, and the integration of quality management principles into routine operations.

The High-Performance Organization (HPO) Framework identifies five key factors that distinguish high-performing organizations: management quality, openness and action orientation, long-term orientation, continuous improvement and renewal, and employee quality.

In the hospital context, organizational excellence is typically measured through a combination of:

- **Clinical Outcomes:** Mortality rates, complication rates, readmission rates, and other indicators of clinical effectiveness.
- **Patient Safety:** Adverse event rates, medication errors, hospital-acquired infections, and patient falls.
- **Patient Satisfaction:** Patient experience scores, patient-reported outcome measures, and patient loyalty.
- **Operational Efficiency:** Length of stay, wait times, resource utilization, and cost per case.
- **Employee Engagement:** Staff satisfaction, retention rates, and workforce productivity.

2.3. The Nexus between TQM and Organizational Excellence

Extant literature provides substantial evidence for a positive relationship between TQM practices and organizational performance in healthcare settings. Research by Alaraki (2014) demonstrated a significant positive correlation between eight TQM practices (leadership, employee management, information analysis, training, customer focus, continuous improvement, process management, and supplier management) and hospital performance, with a correlation coefficient of $r = 0.9$ ($p = .0001$).



A systematic review by Bhaladhare and Rishipathak (2024) found that TQM practices have a significant effect on patient outcomes and patient satisfaction in healthcare systems, with leadership, communication, employee involvement, customer focus, organizational culture, strategic planning, and patient loyalty identified as critical success factors.

Research applying the EFQM Model in hospitals has shown that implementation of the model is associated with improvement in organizational performance over time, establishing a feedback loop in which hospitals use their results to further improve organizational processes. Improvement is stronger when all the model's elements are considered simultaneously, highlighting the importance of a holistic approach to TQM.

Studies utilizing the Baldrige framework in healthcare have similarly demonstrated its utility in identifying strengths and gaps in hospital practices to support continuous improvement and organizational excellence. A study of a large hospital in Northern India using the MBNQA framework found that the hospital achieved a score of 64.3%, placing it in the "moderate" category, with strong performance in operations and leadership but weaker results in workforce focus and strategic planning.

The relationship between TQM and organizational excellence is mediated by several factors:

- 1. Quality of Implementation:** Superficial or partial implementation of TQM practices yields limited benefits, whereas comprehensive, systemic implementation produces substantial improvements.
- 2. Organizational Culture:** A culture that supports learning, innovation, and continuous improvement amplifies the effects of TQM practices.
- 3. Leadership Effectiveness:** Leaders who actively champion quality, communicate vision, and model quality-oriented behaviors enhance the impact of TQM.
- 4. Employee Capabilities:** A skilled, motivated, and empowered workforce is essential for translating TQM practices into performance outcomes.
- 5. Contextual Factors:** The healthcare environment, including regulatory requirements, resource availability, and patient characteristics, shapes the effectiveness of TQM practices.

However, the relationship is not automatic or guaranteed. Studies have identified significant barriers that impede successful TQM implementation, including resistance to change, insufficient training, inadequate resources, weak leadership commitment, and cultural factors.

2.4. The Context of Hospitals in the Healthcare System

Hospitals represent the most complex and resource-intensive component of healthcare systems worldwide. They serve multiple functions—acute care, emergency services, diagnostic services, surgical interventions, and specialized treatments—and employ diverse professional groups with different training, perspectives, and priorities.

The hospital environment presents unique challenges for TQM implementation:

- **Professional Autonomy:** Healthcare professionals, particularly physicians, have traditionally enjoyed significant autonomy, which can create resistance to standardized processes and quality management systems.
- **Complexity and Uncertainty:** The inherent unpredictability of clinical care makes standardization difficult and quality measurement challenging.
- **Multiple Stakeholders:** Hospitals must satisfy diverse stakeholders—patients, families, referring physicians, payers, regulators, and the community—each with different expectations and priorities.
- **Resource Constraints:** Hospitals, particularly in developing countries, face significant resource constraints that limit investment in quality infrastructure and training.

In developing country contexts, these challenges are amplified by additional factors including infrastructural deficits, limited access to advanced technologies, workforce shortages, and weak regulatory frameworks.

2.5. Research Gap

While general studies on TQM in healthcare exist, and studies on organizational excellence in hospitals are available, there is a clear research gap at their intersection. Specifically, there is limited empirical research examining the relationship between comprehensive TQM implementation—across its multiple dimensions—and organizational excellence in hospitals, particularly in diverse healthcare contexts. Many studies focus on isolated quality initiatives or specific TQM practices rather than the holistic implementation of TQM philosophy. Furthermore, there is limited research exploring the contextual factors that moderate the relationship between TQM and organizational excellence, including the specific barriers and enablers that shape TQM effectiveness in different hospital settings.

This research seeks to fill this gap by providing a focused, evidence-based analysis of the relationship between TQM practices and organizational excellence in hospitals, examining both the quantitative relationship and the qualitative contextual factors that shape this relationship.



3. RESEARCH METHODOLOGY

3.1. Research Design

This study employed an explanatory sequential mixed-methods design. The primary quantitative phase involved a cross-sectional survey to quantify the relationship between TQM implementation and organizational excellence. This was followed by a qualitative phase using semi-structured interviews to explain, elaborate on, and contextualize the quantitative findings. This design enabled the research to not only establish statistical relationships but also understand the mechanisms, processes, and contextual factors underlying these relationships.

3.2. Population and Sampling

The target population consisted of healthcare professionals working in hospitals, including administrators, quality managers, department heads, physicians, nurses, and allied health professionals.

Quantitative Sample: A stratified random sampling technique was used to ensure representation from different hospital types (public vs. private), hospital sizes (small, medium, large), and professional categories (administrative, clinical, support). A sample of 400 healthcare professionals was selected from 12 hospitals (6 public, 6 private), of which 320 completed and returned the questionnaire, yielding a response rate of 80%.

Qualitative Sample: A purposive sample of 18 individuals was selected, including hospital chief executive officers, quality managers, department heads, and senior clinicians, chosen for their strategic insight into quality management processes and organizational performance.

3.3. Data Collection Instruments

1. Quantitative Instrument: A self-administered questionnaire was developed based on the literature, incorporating validated scales from established TQM and organizational excellence instruments. It comprised three sections:

- **Section A:** Demographic data (age, gender, professional category, years of experience, hospital type, hospital size).
- **Section B:** TQM Implementation Scale (30 items) measuring six dimensions—Leadership Commitment, Continuous Improvement, Patient-Centered Care, Employee Involvement, Process Management, and Data-Driven Decision-Making—on a 5-point Likert scale.
- **Section C:** Organizational Excellence Scale (25 items) measuring five dimensions—Clinical Outcomes, Patient Safety, Patient Satisfaction, Operational Efficiency, and Employee Engagement—on a 5-point Likert scale.

The questionnaire was reviewed by a panel of experts in quality management and healthcare administration and piloted with 30 healthcare professionals to ensure validity and reliability (Cronbach's Alpha > 0.85 for all constructs).

2. Qualitative Instrument: A semi-structured interview protocol with open-ended questions was used to explore perceptions, challenges, and success stories in depth. Interview questions addressed topics such as the history and current state of TQM implementation, perceived benefits and challenges, leadership roles, cultural factors, and recommendations for improvement.

3.4. Variables and Measurement

- **Independent Variable:** TQM Implementation (composite of six dimensions: Leadership Commitment, Continuous Improvement, Patient-Centered Care, Employee Involvement, Process Management, Data-Driven Decision-Making).
- **Dependent Variable:** Organizational Excellence (composite of five dimensions: Clinical Outcomes, Patient Safety, Patient Satisfaction, Operational Efficiency, Employee Engagement).

3.5. Data Analysis Procedures

Quantitative data were analyzed using SPSS v.28. Descriptive statistics (frequencies, means, standard deviations) were used for objectives 1 and 2. Inferential statistics (Pearson correlation and multiple linear regression) were used to test the relationship (objective 3). Qualitative data were transcribed and subjected to thematic analysis using NVivo software to identify recurring themes and patterns (objective 4).

3.6. Ethical Considerations

Anonymity and confidentiality were guaranteed. Informed consent was obtained from all participants. Data were used solely for the purpose of this research. Institutional review board approval was obtained prior to data collection.

4. RESULTS AND FINDINGS

4.1. Demographic Profile of Respondents

The majority of quantitative respondents were male (58%), held a postgraduate degree (52%), and had between 10-20 years of experience (45%). Professional categories included administrators (25%), physicians (30%), nurses (28%), and allied health professionals (17%). Respondents represented public hospitals (55%) and private hospitals (45%), with a mix of small (25%),



medium (40%), and large (35%) facilities. The qualitative interviewees had an average experience of over 22 years and included 6 hospital CEOs, 5 quality managers, 4 department heads, and 3 senior clinicians.

4.2. The Current State of TQM Implementation

The overall level of TQM implementation was found to be at a moderate level (Mean = 3.15 / 5.00, SD = 0.68). The breakdown of the six dimensions revealed a varied landscape:

Table 1. Descriptive Statistics for TQM Implementation

Dimension	Mean	SD
Leadership Commitment	3.52	0.79
Patient-Centered Care	3.35	0.82
Continuous Improvement	3.10	0.85
Process Management	3.05	0.80
Employee Involvement	2.85	0.88
Data-Driven Decision-Making	2.65	0.92
Overall TQM Implementation	3.15	0.68

Leadership Commitment had the highest adoption (Mean = 3.52, SD = 0.79). Most hospitals had formal quality policies and senior leadership expressed commitment to quality. However, this commitment was often not translated into consistent resource allocation and active engagement.

Patient-Centered Care scored moderately high (Mean = 3.35, SD = 0.82). Patient satisfaction surveys were commonly conducted, and there was growing awareness of the importance of patient experience. However, patient involvement in quality improvement initiatives remained limited.

Continuous Improvement was at a moderate level (Mean = 3.10, SD = 0.85). While quality improvement projects were initiated periodically, they were often project-based rather than embedded as a continuous organizational process. There was limited use of systematic improvement methodologies such as Plan-Do-Study-Act (PDSA) cycles.

Employee Involvement was moderately low (Mean = 2.85, SD = 0.88). Staff participation in quality improvement teams was limited, and there was insufficient training in quality improvement methods. Employee suggestion systems existed but were not widely utilized.

Process Management was at a moderate level (Mean = 3.05, SD = 0.80). Standard operating procedures were documented for many clinical and administrative processes, but process monitoring and systematic improvement were inconsistent.

Data-Driven Decision-Making was the weakest dimension (Mean = 2.65, SD = 0.92). While data were collected for regulatory reporting, there was limited use of data for strategic decision-making and quality improvement. Analytical capabilities were weak, and data were often not integrated across departments.

4.3. The Level of Organizational Excellence

The perceived level of organizational excellence was slightly above average (Mean = 3.25 / 5.00, SD = 0.71). The five components were rated as follows:

Table 2. Descriptive Statistics for Organizational Excellence

Dimension	Mean	SD
Patient Safety	3.45	0.78
Patient Satisfaction	3.30	0.82
Clinical Outcomes	3.15	0.85
Operational Efficiency	3.10	0.80
Employee Engagement	3.05	0.88
Overall Organizational Excellence	3.25	0.71

Patient Safety (Mean = 3.45, SD = 0.78) Respondents reported that patient safety was a priority, with incident reporting systems in place. However, there was a sense that safety culture was not fully embedded, and many incidents went unreported.

Patient Satisfaction (Mean = 3.30, SD = 0.82) Most hospitals conducted patient satisfaction surveys and achieved moderate satisfaction scores. However, there were significant variations across departments and patient groups.

Clinical Outcomes (Mean = 3.15, SD = 0.85) Clinical outcome indicators such as mortality and complication rates were monitored, but there was limited benchmarking against national or international standards.

Operational Efficiency (Mean = 3.10, SD = 0.80) Efficiency was a concern, with issues such as long wait times, inefficient patient flow, and high operational costs. Improvement efforts were ongoing but often fragmented.



Employee Engagement (Mean = 3.05, SD = 0.88) This was the lowest-rated aspect, indicating challenges in staff satisfaction, retention, and motivation. High workload, limited career development opportunities, and inadequate recognition were frequently cited concerns.

4.4. Testing the Relationship: Correlation and Regression Analysis

A Pearson correlation analysis revealed a strong, positive, and statistically significant relationship between the overall level of TQM implementation and organizational excellence ($r = 0.78$, $p < 0.001$). All six TQM dimensions showed significant positive correlations with organizational excellence, with Leadership Commitment showing the strongest correlation ($r = 0.72$, $p < 0.001$).

Table 3. Correlation Analysis Summary

Relationship	r	p-value	Interpretation
Overall TQM Implementation and Organizational Excellence	0.78	< 0.001	Strong positive relationship
Leadership Commitment and Organizational Excellence	0.72	< 0.001	Strongest dimension-level correlation reported

To delve deeper, a multiple linear regression was conducted with the six TQM dimensions as independent variables and organizational excellence as the dependent variable. The model was significant ($F(6, 313) = 48.52$, $p < .001$, $R^2 = 0.65$), indicating that 65% of the variance in organizational excellence can be explained by these TQM dimensions.

The regression coefficients are summarized in Table 4.

Table 4. Multiple Regression Analysis Summary

Predictor	β	p-value
Leadership Commitment	0.38	$< .001$
Continuous Improvement	0.25	$< .01$
Patient-Centered Care	0.20	$< .01$
Employee Involvement	0.15	$< .05$
Process Management	0.12	$< .05$
Data-Driven Decision-Making	0.10	$< .05$

$$R^2 = 0.65; F(6, 313) = 48.52; p < .001.$$

4.5. Qualitative Thematic Analysis

The interviews provided rich context to the quantitative findings, generating four key themes:

Table 5. Qualitative Themes and Core Findings

Theme	Core Finding
Leadership Gap: Policy vs. Practice	Quality commitment was frequently stated at policy level but inconsistently reflected in budgets, routines, and leadership participation.
Quality as a Parallel Activity	Quality work was often treated as an additional administrative task rather than an integrated operational function.
Data Paradox: Collecting but Not Using	Hospitals collected substantial clinical, operational, and patient data but lacked adequate analytical capability.
Barriers: Culture, Capacity, Resources, and Resistance	Implementation barriers included blame-oriented culture, insufficient training, resource limitations, and resistance to change.

- 1. The Leadership Gap:** Policy vs. Practice: Interviewees consistently noted a gap between leadership rhetoric and action. One CEO stated, "Our leadership talks about quality in every meeting, but when it comes to allocating budgets or time for quality improvement, other priorities always take precedence." Another quality manager observed, "We have a quality policy on paper, but the leadership doesn't walk the talk. They don't participate in quality rounds or engage with improvement teams."
- 2. Quality as a Parallel Activity, Not an Integrated Function:** Many interviewees described quality management as a separate activity rather than an integral part of daily operations. A department head commented, "Quality is something we do in addition to our regular work. We have quality meetings, we fill quality forms, but it's not how we actually run our services." This separation was seen as limiting the impact of quality initiatives and creating "quality fatigue" among staff.
- 3. The Data Paradox:** Collecting but Not Using: Interviewees acknowledged that hospitals collected vast amounts of data but lacked the capacity to analyze and act upon it. A quality manager explained, "We have data coming from every direction—clinical data, operational data, patient feedback—but we don't have the tools or the skills to make sense of it. We report it to regulators, but we don't use it to improve." Another noted, "We're data-rich but information-poor."
- 4. Barriers as a Quadruple:** Culture, Capacity, Resources, and Resistance: The main obstacles were consistently identified as:



5. DISCUSSION

The findings confirm the central hypothesis of this research: TQM implementation is a significant driver of organizational excellence in hospitals. The strong correlation and substantial R-squared value from the regression analysis provide robust quantitative evidence for this relationship, consistent with previous research demonstrating the positive impact of TQM on hospital performance.

The primacy of Leadership Commitment as a predictor of organizational excellence is a critical insight. This finding underscores that TQM is not merely a technical intervention but fundamentally a leadership endeavor. When leaders actively champion quality, allocate resources, model quality-oriented behaviors, and hold themselves accountable for quality outcomes, they create the conditions for successful TQM implementation. The qualitative finding of a "leadership gap"—between policy rhetoric and practical action—highlights the need for leaders to demonstrate commitment through tangible actions rather than mere words.

The significant role of Continuous Improvement as the second strongest predictor reflects the dynamic nature of healthcare quality. Excellence is not a destination but a journey of ongoing improvement. Hospitals that embed systematic improvement processes—using methodologies such as PDSA cycles, Lean, or Six Sigma—are better positioned to achieve and sustain organizational excellence.

Patient-Centered Care emerged as the third strongest predictor, confirming that healthcare quality is ultimately defined by patient experience and outcomes. Hospitals that orient their processes, culture, and measurement systems around patient needs and preferences are more likely to achieve excellence across multiple dimensions.

The qualitative findings reveal the cultural and structural hurdles that impede TQM effectiveness. The theme of "quality as a parallel activity" reflects the challenge of integrating quality into the DNA of healthcare organizations. When quality is seen as an add-on rather than a core function, its impact is limited. The "data paradox" theme—collecting vast amounts of data but failing to use it for improvement—highlights the gap between data availability and analytical capability. This finding aligns with the low score for Data-Driven Decision-Making in the quantitative results.

The identified barriers—organizational culture, capacity constraints, resource limitations, and resistance to change—provide a comprehensive framework for understanding the challenges of TQM implementation in hospitals. These barriers are interconnected: a culture that does not support learning from errors makes it difficult to build capacity for improvement, while resource constraints limit the ability to invest in training and infrastructure. Resistance to change, often rooted in professional autonomy and fear of the unknown, compounds these challenges.

In essence, the study demonstrates that TQM practices, when implemented comprehensively and supported by strong leadership and a quality-oriented culture, can transform hospital performance from routine service delivery to sustained organizational excellence. However, achieving this transformation requires addressing the cultural, capacity, resource, and resistance barriers that impede effective implementation.

6. CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

This study concludes that Total Quality Management holds immense potential for enhancing organizational excellence in hospitals. A significant positive relationship exists between TQM implementation and organizational excellence, with leadership commitment, continuous improvement, and patient-centered care being the most potent factors. However, the full potential remains untapped due to a combination of cultural, capacity, resource, and resistance barriers. The journey from adopting quality tools to truly embedding quality as an organizational ethos requires a holistic approach that addresses not only technical aspects but also the human, cultural, and structural dimensions of quality management.

6.2. Recommendations

6.2.1. Strategic-Level Recommendations

- 1. Strengthen Leadership Commitment:** Hospital boards and senior leadership must demonstrate genuine commitment to quality through tangible actions: allocating dedicated quality budgets, participating in quality rounds, holding regular quality review meetings, and linking leadership performance evaluations to quality outcomes. Leadership development programs should include quality management competencies.
- 2. Embed Continuous Improvement as an Organizational Value:** Hospitals should move beyond project-based quality initiatives to establish continuous improvement as a core organizational value. This requires adopting systematic improvement methodologies (e.g., Lean, Six Sigma, PDSA), integrating improvement activities into routine work, and celebrating improvement achievements.
- 3. Establish a Comprehensive Quality Management System:** Hospitals should develop and implement a comprehensive quality management system that integrates the key TQM dimensions—leadership, continuous improvement, patient-centered care, employee involvement, process management, and data-driven decision-making. The system should be aligned with established excellence frameworks such as the Baldrige Criteria or EFQM Model.
- 4. Foster a Quality-Oriented Organizational Culture:** Building a culture that supports quality requires addressing blame cultures, encouraging learning from errors, promoting transparency, and recognizing staff contributions to quality improvement. This cultural transformation requires sustained effort and leadership commitment over time.



6.2.2. Operational-Level Recommendations

- 1. Invest in Workforce Capacity Building:** Hospitals should implement comprehensive training programs in quality improvement methods for all staff, with particular emphasis on data literacy, process improvement, and patient engagement. Training should be ongoing rather than one-off, and should be linked to career development and recognition.
- 2. Strengthen Data Infrastructure and Analytical Capabilities:** Hospitals should invest in integrated information systems that enable seamless data collection, analysis, and reporting. Data should be made accessible to frontline staff in user-friendly formats, and analytical support should be provided to help staff interpret and act upon data.
- 3. Establish Effective Quality Governance Structures:** Hospitals should establish clear quality governance structures with defined roles, responsibilities, and accountability. Quality committees should include representation from all professional groups and should meet regularly to review performance, prioritize improvement initiatives, and track progress.
- 4. Implement Patient and Family Engagement Strategies:** Hospitals should actively involve patients and families in quality improvement initiatives through patient advisory councils, co-design of services, and systematic collection and use of patient feedback. Patient experience should be measured, reported, and used to drive improvement.
- 5. Allocate Dedicated Quality Resources:** Hospitals should ensure that annual budgets include dedicated line items for quality improvement activities, including staff time, training, technology, and improvement projects. These resources should be protected from reallocation to other priorities.

6.3. Limitations and Suggestions for Future Research

This study is limited by its focus on perceptions of healthcare professionals, which may not fully capture objective performance measures. Future research could incorporate objective clinical and operational data to complement perceptual measures. The cross-sectional design limits causal inference; longitudinal studies tracking performance before and after TQM implementation would provide stronger causal evidence. The study focused on hospitals in a specific context; comparative studies across different healthcare systems and country contexts would enhance generalizability. Finally, future research could explore the mediating mechanisms through which TQM practices influence organizational excellence, including the roles of organizational culture, employee engagement, and patient involvement.

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