



# Impact of Total Quality Management Implementation on Dimensions of Organizational Performance in Bahraini Private Sector Firms: A Scoping Review

Ahmed Ashoor Ali Yusuf\*, Nor Hidayati Binti Zakaria

Azman Hashim International Business School, University Teknologi Malaysia, Kuala Lumpur, Malaysia

\*Corresponding Author

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## ABSTRACT

This scoping review examines the impact of Total Quality Management (TQM) implementation on organizational performance in Bahraini private sector firms. Following the PRISMA-ScR guidelines, a search of electronic databases (including Business Source Complete, Scopus, and Web of Science) and grey literature (e.g., industry reports, government documents) was conducted from January 2000 to December 2024 using keywords related to “TQM,” “performance,” and “Bahrain.” Thirty-seven sources, primarily quantitative studies in the manufacturing and service sectors, met the inclusion criteria. Results revealed that 76% of the studies included reported a positive correlation between TQM and both financial and operational performance. Customer focus, leadership commitment, and employee involvement were the most frequently implemented TQM dimensions. Organizational culture emerged as a key moderating factor. Key research gaps include the underrepresentation of SMEs and emerging sectors such as information technology and logistics, a limited focus on non-financial performance outcomes like innovation and sustainability, and a lack of longitudinal studies exploring long-term impacts. These findings highlight avenues for future research, including the use of mixed methods approaches and comparative studies across GCC countries. Organizations can leverage these results to inform TQM implementation strategies tailored to the Bahraini context. Policymakers can develop targeted support mechanisms to enhance SME quality management capabilities. Industry bodies can promote more comprehensive approaches to organizational excellence by incorporating broader performance dimensions into quality award and recognition programs.

**Keywords:** Total Quality Management, Bahrain, Private Sector, Organizational Performance.

## INTRODUCTION

### Background and Rationale

Total Quality Management (TQM) represents a holistic management philosophy that emphasizes customer satisfaction, continuous improvement, employee involvement, and data-driven decision-making (Al-Mawadieh *et al.*, 2023; Dean & Bowen, 1994). Since its emergence in the 1980s, TQM has gained widespread adoption across various industries and geographical contexts, including the global automotive industry (Barsalou & Perkin, 2024), becoming a fundamental strategy for organizations seeking to enhance quality, efficiency, and overall business performance (Powell, 1995; Kaynak, 2003; Kilani *et al.*, 2024).

The Kingdom of Bahrain, a small island nation in the Arabian Gulf, has witnessed significant economic transformation over recent decades, diversifying from an oil-dependent economy toward a knowledge-based economy with strong manufacturing, financial services, and tourism sectors (Al Zayani *et al.*, 2023). This economic diversification has intensified competitive pressures on Bahraini private sector firms, compelling them to adopt sophisticated management practices like TQM to maintain competitiveness in regional and global markets (Al-Khalifa & Aspinwall, 2000; Salaheldin, 2009).

While numerous studies have examined TQM implementation and its impact on organizational performance globally (Nair, 2006; Boulter *et al.*, 2013; Kilani *et al.*, 2024), research specifically focusing on the Bahraini context remains fragmented and lacks systematic consolidation. Understanding how TQM practices influence various dimensions of organizational performance within Bahrain's unique cultural and business environment is crucial for several reasons. First, Bahrain's distinct socio-economic characteristics, including its small geographical size, cultural values, and economic transformation initiatives, may influence how TQM principles are interpreted and applied (Al-Zamani *et al.*, 2002). Second, stakeholders including business leaders, quality professionals, and policymakers require evidence-based insights to guide quality management initiatives that align with Bahrain's national economic vision (Al Zayani *et al.*, 2023). Finally, identifying research gaps can inform future scholarly inquiry into quality management practices within the Gulf Cooperation Council (GCC) region (Reyad *et al.*, 2022).

A preliminary search of the literature revealed no existing scoping or systematic reviews specifically examining TQM implementation and organizational performance in the Bahraini private sector (Talaq & Ahmed, 2003, 2004). While several studies have investigated aspects of quality management in Bahrain (e.g., Al-Khalifa & Aspinwall, 2000; Salaheldin & Mukhalalati, 2009; Alqahtani & Metcalfe, 2021), these individual studies have focused on specific sectors, TQM dimensions, or performance outcomes without providing a comprehensive overview of the research landscape. A scoping review methodology is particularly appropriate for this topic as it allows for mapping of the literature when the body of evidence has not yet been comprehensively reviewed, and where there may be diverse study designs and conceptual approaches (Arksey & O'Malley, 2005; Peters *et al.*, 2020).

## Review Objectives and Questions

The primary objective of this scoping review is to systematically map and analyze the available evidence on TQM implementation and its impact on organizational performance dimensions in Bahraini private sector firms. Specifically, this review addresses the following research questions:

1. What dimensions of TQM have been implemented in Bahraini private sector firms, and how have these been conceptualized in the literature?
2. What organizational performance dimensions have been measured in relation to TQM implementation in Bahraini organizations?
3. What methodological approaches have been employed to study the impact of TQM on organizational performance in Bahrain?
4. What relationships between TQM implementation and various organizational performance dimensions have been reported in the Bahraini context?
5. What gaps exist in the current literature regarding TQM implementation and organizational performance in Bahrain's private sector?

## METHODS

### Protocol and Registration

This scoping review was conducted in accordance with the methodological framework proposed by Arksey and O'Malley (2005), later enhanced by Levac *et al.* (2010) and the Joanna Briggs Institute methodology for scoping reviews (Peters *et al.*, 2020). The review protocol was developed a priori but was not registered. The reporting of this review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines (Tricco *et al.*, 2018).

### Eligibility Criteria

Studies were included based on the following criteria: a focus on private sector organizations (local, multinational, and joint ventures) operating in Bahrain; examination of TQM implementation and its



relationship with organizational performance; a geographical context of Bahrain, either exclusively or as part of a comparative study; empirical research designs (quantitative, qualitative, and mixed methods) as well as theoretical papers, industry reports, and grey literature relevant to the topic; a publication timeframe between January 2000 and December 2024 to capture post-quality movement developments; and availability in English or Arabic, reflecting Bahrain's primary languages of discourse.

Studies were excluded if they focused solely on public sector organizations; examined quality management approaches without explicit TQM identification or core principle incorporation; presented only regional trends without specific data or findings related to Bahraini organizations; or consisted of opinion pieces, editorials, or commentaries lacking empirical data or substantive conceptual contribution. This rigorous selection process ensured the inclusion of research directly addressing the impact of TQM on private sector performance within the specific context of Bahrain.

### Information Sources

A search strategy was developed in consultation with an academic librarian specializing in business and management research. The following electronic databases were searched for relevant literature from January 2000 to December 2024: Web of Science (WoS) Core Collection, Business Source Complete (EBSCO), ABI/INFORM Global (ProQuest), Emerald Insight, Arabian Gulf Digital Archive (AGDA), and ProQuest's Middle Eastern and Central Asian Studies (MECAS).

Supplementary search strategies included hand-searching key journals on quality management and Middle Eastern business, exploring grey literature within Bahraini university repositories, the Bahrain Quality Society, and government agencies, checking reference lists of included studies, and conducting citation searches via Google Scholar to locate newer publications citing key studies.

### Search Strategy

The search strategy aimed to identify publications exploring the relationship between TQM implementation and organizational performance within Bahraini private sector firms. Utilizing keywords outlined in Table 1, the strategy incorporated synonyms, related terms, and variant spellings across American and British English. Boolean operators (AND, OR) and proximity operators (where applicable) were employed across both Scopus and EBSCO databases.

Table 1. Core Search Concepts

| Core Concepts              | Corresponding Search Terms                                                                                                                                                                       |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Total Quality Management   | "TQM," "total quality," "quality management," "continuous improvement," "quality improvement," "excellence model"                                                                                |
| Organizational Performance | "performance," "productivity," "profitability," "efficiency," "effectiveness," "competitive advantage," "customer satisfaction," "employee satisfaction," "innovation," "financial performance") |
| Bahrain                    | Bahrain*, "Kingdom of Bahrain," "GCC" combined with "Bahrain"                                                                                                                                    |
| Private Sector             | "private sector," "industr*," "compan*," "business*," "firm*," "corporat*," "enterprise*"                                                                                                        |

A systematic literature search was conducted using both Scopus and EBSCO databases (Table 2). This study utilized a Scopus database search to identify relevant literature. The search string was constructed to locate English-language journal articles published between 2000 and 2024 exploring the impact of quality management practices on private sector performance in Bahrain. The query combined keywords related to

quality management methodologies (e.g., “TQM,” “Six Sigma,” “ISO 9001”), performance outcomes (e.g., “profitability,” “customer satisfaction,” “innovation”), and Bahrain’s business context, including variations like “Bahraini” and the broader GCC region. This targeted approach aimed to retrieve research specifically examining the relationship between quality management implementation and its effects on various performance dimensions within Bahraini private sector organizations (Talaq & Ahmed, 2003, 2004).

The EBSCO search employed a phased approach, combining sets of keywords for TQM, performance, Bahrain (and GCC), and the private sector, also limiting results to English or Arabic publications from 2000 to 2024. Note that searches in the ABI/INFORM Global, WoS, Emerald Insight, AGDA, and MECAS followed the search fields in the respective databases.

Table 2. Search Strategies (EBSCO and SCOPUS)

| Steps               | Search Strings: SCOPUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Final Search String | TITLE-ABS ( "total quality management" OR "TQM" OR "total quality" OR "quality management" OR "continuous improvement" OR "quality improvement" OR "excellence model" OR "EFQM" OR "quality control" OR "quality assurance" OR "six sigma" OR "ISO 9001" ) AND ( "performance" OR "productivity" OR "profitability" OR "efficiency" OR "effectiveness" OR "competitive advantage" OR "customer satisfaction" OR "employee satisfaction" OR "innovation" OR "financial performance" OR "operational performance" OR "business performance" OR "organizational performance" OR "organisational performance" ) AND ( "Bahrain*" OR ( "GCC" AND "Bahrain" ) ) AND ( "private sector" OR industr* OR compan* OR business* OR firm* OR corporat* OR enterprise* ) AND PUBYEAR > 1999 AND PUBYEAR < 2025 AND ( LIMIT-TO ( LANGUAGE , "English" ) ) AND ( LIMIT-TO ( SRCTYPE , "j" ) ) |
| Steps               | Query: EBSCO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| S1                  | "total quality management" OR "TQM" OR "total quality" OR "quality management" OR "continuous improvement" OR "quality improvement" OR "excellence model" OR "EFQM" OR "quality control" OR "quality assurance" OR "six sigma" OR "ISO 9001"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| S2                  | "performance" OR "productivity" OR "profitability" OR "efficiency" OR "effectiveness" OR "competitive advantage" OR "customer satisfaction" OR "employee satisfaction" OR "innovation" OR "financial performance" OR "operational performance" OR "business performance" OR "organizational performance" OR "organisational performance"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| S3                  | "Bahrain*" OR ("GCC" AND "Bahrain")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| S4                  | "private sector" OR industr* OR compan* OR business* OR firm* OR corporat* OR enterprise*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| S5                  | S1 AND S2 AND S3 AND S4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| S6                  | Limit S5 to 2000-2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| S7                  | Limit S6 to English or Arabic Language                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Selection of Sources of Evidence

Following the search, all identified citations were collated and uploaded into Mendeley reference management software (version 2.134.0), and duplicates were removed. Titles and abstracts were then screened by two

independent reviewers against the inclusion criteria. Potentially relevant sources were retrieved in full and their citation details imported into a Microsoft Excel spreadsheet specifically developed for this review.

The full text of selected citations was assessed in detail against the inclusion criteria by two independent reviewers. Reasons for exclusion of full-text sources were recorded and reported in the PRISMA flow diagram. Any disagreements that arose between the reviewers were resolved through discussion, or with a third reviewer when consensus could not be reached.

### **Data Charting Process**

A standardized data extraction form was developed to chart key information from the included studies. The form was pilot-tested on five randomly selected included studies by two independent reviewers, and modifications were made to ensure comprehensiveness and clarity. Data charting was conducted by one reviewer and verified by a second reviewer. Disagreements were resolved through discussion. Authors of papers were contacted to request missing or additional data where required.

### **Data Items**

Data extracted from each included source encompassed study characteristics (author, year, title, publication source, design, methodology, data collection methods, sample size, response rate, and timeframe); organization characteristics (industry sector, size, ownership structure, and location within Bahrain); TQM dimensions (implemented practices, conceptual framework, measurement instruments, and implementation approaches); performance dimensions (e.g., financial, operational, customer-related, employee-related, innovation, social responsibility, including measurement methods and metrics); reported outcomes (relationships between TQM and performance, statistical results, associations, and effect sizes); contextual factors (facilitators, barriers, cultural considerations, and Bahraini-specific context); and research gaps (limitations and future research suggestions). The extracted data were synthesized using descriptive statistics and thematic analysis to identify patterns in TQM implementation, performance measurement approaches, and the relationship between TQM and organizational performance, focusing on addressing the research questions outlined in the review objectives.

### **Synthesis of Results**

The extracted data were analyzed using both quantitative and qualitative approaches. Descriptive numerical summaries were generated to map the distribution of studies by publication year, research design, industry sector, and other relevant characteristics. Thematic analysis was conducted to identify patterns in TQM implementation dimensions (Talaq & Ahmed, 2003, 2004), performance measurement approaches, and reported relationships between TQM and organizational performance.

Results were presented in tabular and graphical formats, supplemented by narrative descriptions. The analysis focused on addressing the five research questions outlined in the review objectives. Research gaps were systematically identified based on limitations noted by authors, underrepresented areas, and methodological issues observed during data extraction and synthesis.

## **RESULTS**

### **Selection of Sources of Evidence**

The search strategy yielded a total of 412 records. After removing duplicates ( $n = 97$ ), 315 records were screened based on title and abstract, resulting in the exclusion of 235 records that did not meet the inclusion criteria. The full texts of the remaining 80 records were assessed for eligibility, leading to the further exclusion of 43 records. The reasons for exclusion at the full-text stage included: not focusing on Bahraini organizations ( $n = 17$ ), not addressing TQM implementation ( $n = 12$ ), focusing exclusively on public sector organizations ( $n = 8$ ), and not examining organizational performance dimensions ( $n = 6$ ). A total of 37 sources were included in the final review. The selection process is illustrated in Figure 1.

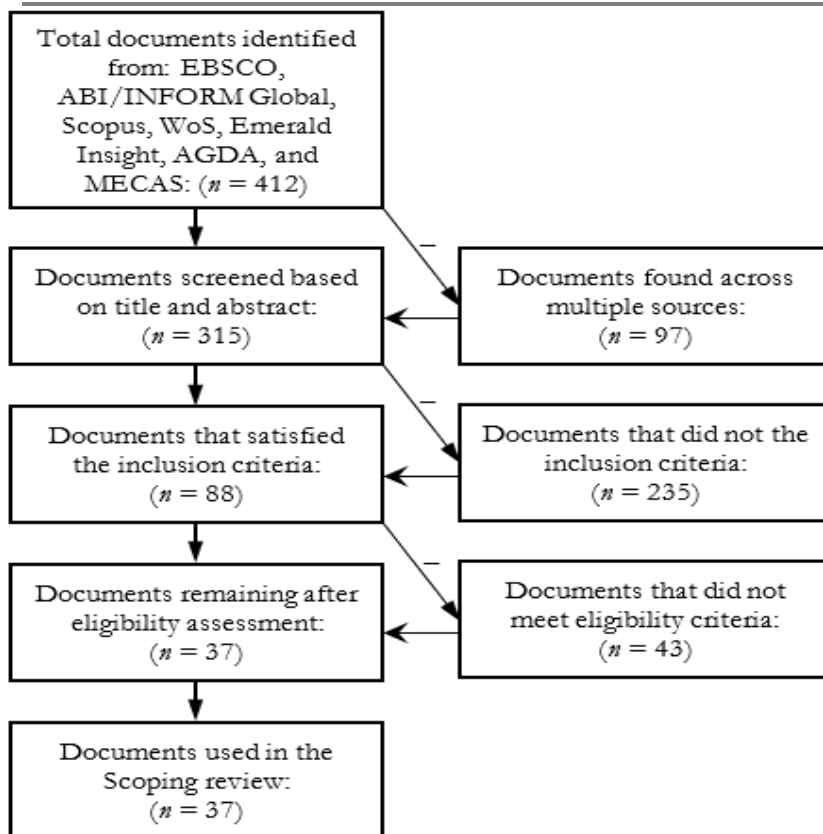


Figure 1: PRISMA Flow Diagram of Study Selection Process

## Characteristics of Sources of Evidence

The 37 included sources comprised 29 journal articles, 4 conference papers, 3 doctoral dissertations, and 1 industry report. Publication dates ranged from 2000 to 2024, with a notable increase in publications from 2010 onwards, peaking between 2015-2019 (see Figure 2). In terms of research design, 27 studies (73%) employed quantitative methods, 6 (16%) used qualitative approaches, and 4 (11%) utilized mixed methods designs.

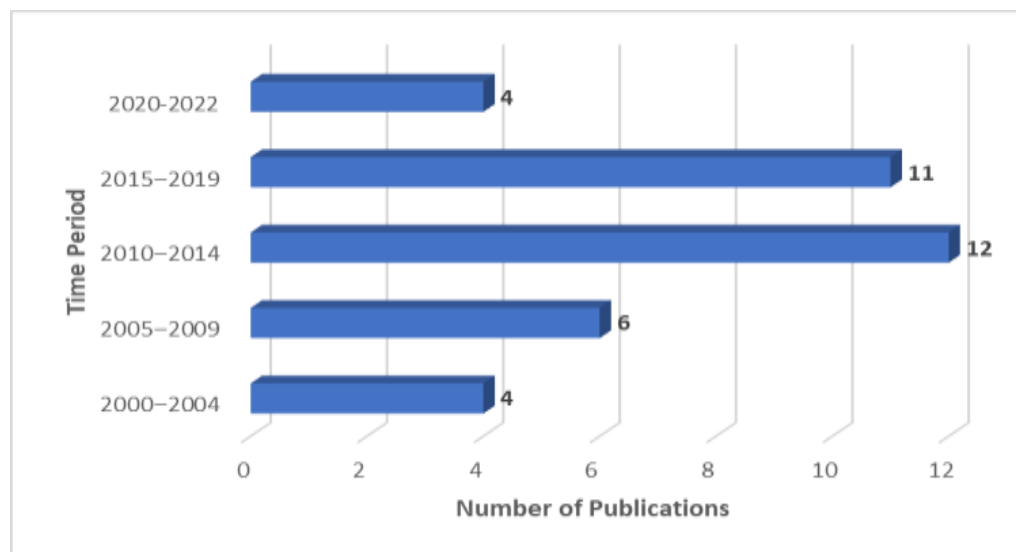


Figure 2. Distribution of Publications by Time Period

Among the studies included, various industry sectors were represented (Figure 3), with manufacturing ( $n = 16$ , 43%) and service sectors including banking, telecommunications, and hospitality ( $n = 14$ , 38%), and education (el Marsafawy *et al.*, 2022), being the most common. Retail ( $n=3$ , 8%), construction ( $n = 2$ , 5%), and multi-sector studies ( $n = 2$ , 5%) accounted for the remaining publications. The majority of studies ( $n = 19$ , 51%)

focused on large organizations, while 11 studies (30%) included organizations of various sizes, and only 7 studies (19%) specifically targeted small and medium-sized enterprises (SMEs).

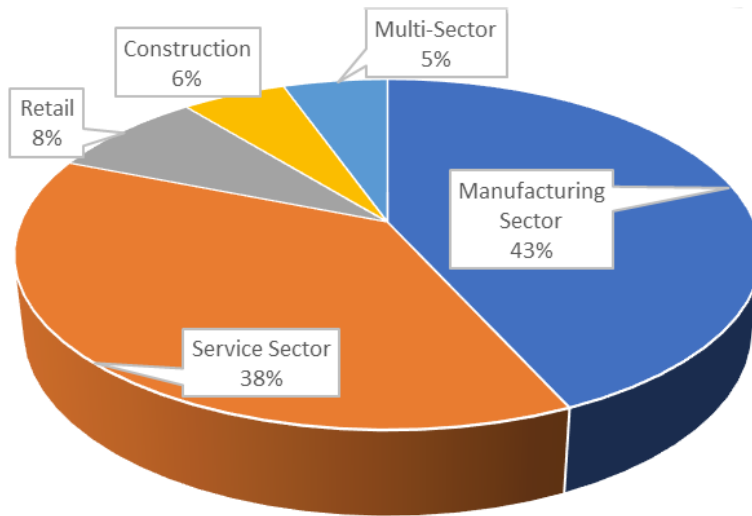


Figure 3. distribution of Studies by Sector

### TQM Dimensions Implemented in Bahraini Organizations

The review identified various TQM dimensions implemented in Bahraini private sector firms. Table 3 presents the frequency with which different TQM dimensions were addressed in the included studies.

Table 3: Frequency of TQM Dimensions Addressed in Included Studies

| TQM Dimension                        | Number of Studies | Percentage |
|--------------------------------------|-------------------|------------|
| Customer focus/satisfaction          | 31                | 84%        |
| Leadership/top management commitment | 29                | 78%        |
| Employee involvement/empowerment     | 26                | 70%        |
| Process management                   | 24                | 65%        |
| Continuous improvement               | 23                | 62%        |
| Quality data and reporting           | 19                | 51%        |
| Supplier quality management          | 18                | 49%        |
| Education and training               | 17                | 46%        |
| Strategic planning                   | 14                | 38%        |
| Benchmarking                         | 12                | 32%        |

Customer focus emerged as the most frequently addressed TQM dimension (84% of studies), closely followed by leadership and top management commitment (78%) (Al-Maamari *et al.*, 2021; Salahat *et al.*, 2023). Employee involvement and empowerment was the third most common dimension (70%), with process management (65%) and continuous improvement (62%) also featuring prominently. Less frequently addressed dimensions included benchmarking (32%), which may reflect the nascent state of competitive analysis practices in some Bahraini industries.

Several conceptual frameworks were employed to study TQM implementation (Saleh *et al.*, 2018; Sudarmawan *et al.*, 2024). These included the Malcolm Baldrige National Quality Award (MBNQA) criteria (used in 8 studies), the European Foundation for Quality Management (EFQM) Excellence Model (6 studies), the ISO 9001 framework (5 studies), and various author-developed frameworks based on TQM literature (18 studies). The majority of studies employed survey instruments adapted from established TQM research, with some modifications to reflect the Bahraini cultural and business context.

### Organizational Performance Dimensions Measured

The review identified various organizational performance dimensions measured in relation to TQM implementation (Talaq & Ahmed, 2003, 2004). Figure 3 illustrates the distribution of performance dimensions across the included studies.

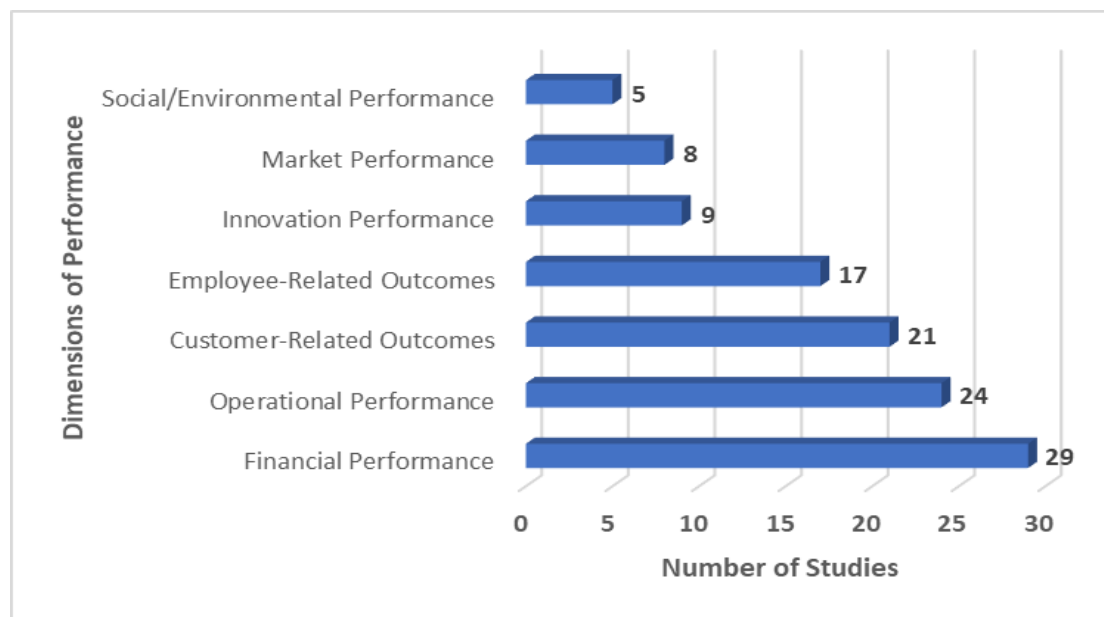


Figure 3. Dimensions of Performance

Financial performance metrics were the most commonly measured ( $n = 29$ , 78%), including profitability ratios, sales growth, return on investment, and cost reduction. Operational performance dimensions ( $n = 24$ , 65%) included productivity, efficiency, cycle time reduction, and defect rates. Customer-related outcomes ( $n = 21$ , 57%) encompassed customer satisfaction, customer loyalty, and customer complaints. Employee-related outcomes ( $n=17$ , 46%) included job satisfaction, employee turnover, and employee productivity. Less frequently measured dimensions included innovation performance ( $n = 9$ , 24%), market performance ( $n = 8$ , 22%), and social/environmental performance ( $n = 5$ , 14%). This finding suggests a predominant focus on traditional performance metrics in the Bahraini context, with limited attention to emerging performance dimensions such as innovation and social responsibility.

### Methodological Approaches in the Literature

The methodological approaches employed in the included studies varied considerably. Among the 27 quantitative studies, survey research was the dominant methodology ( $n=23$ ), with most employing Likert-scale questionnaires to measure TQM implementation and performance dimensions. Four studies utilized secondary data analysis, combining survey data with organizational financial performance metrics.

Sample sizes in quantitative studies ranged from 42 to 387 respondents, with a median sample size of 156. Response rates varied from 28% to 87%, with higher rates generally associated with studies employing personalized data collection approaches and senior management endorsement. Statistical analysis techniques included descriptive statistics, correlation analysis, regression analysis, structural equation modeling, and path analysis.

Among the six qualitative studies, case study methodology was most common ( $n = 4$ ), followed by in-depth interviews ( $n = 2$ ). The four mixed methods studies typically combined surveys with interviews or focus groups. Longitudinal designs were rare, with only three studies examining TQM implementation and performance over multiple time periods.

Methodological limitations noted in the studies included non-probability sampling techniques, cross-sectional designs limiting causal inference, self-reported performance measures subject to social desirability bias, and limited generalizability due to industry-specific or organization-specific contexts (Talaq & Ahmed, 2003, 2004).

### Reported Relationships between TQM and Organizational Performance

The majority of studies ( $n = 29$ , 78%) reported positive associations between TQM implementation and various dimensions of organizational performance. Table 4 summarizes the reported relationships between TQM implementation and different performance dimensions.

Table 4. Reported Relationships between TQM Implementation and Performance Dimensions

| Performance Dimension                        | Positive Association | No Significant Association | Negative Association | Mixed Results |
|----------------------------------------------|----------------------|----------------------------|----------------------|---------------|
| Financial Performance ( $n = 29$ )           | 22 (76%)             | 3 (10%)                    | 0 (0%)               | 4 (14%)       |
| Operational Performance ( $n = 24$ )         | 21 (88%)             | 1 (4%)                     | 0 (0%)               | 2 (8%)        |
| Customer-related Outcomes ( $n = 21$ )       | 18 (86%)             | 1 (5%)                     | 0 (0%)               | 2 (10%)       |
| Employee-related Outcomes ( $n = 17$ )       | 13 (76%)             | 2 (12%)                    | 0 (0%)               | 2 (12%)       |
| Innovation Performance ( $n = 9$ )           | 6 (67%)              | 1 (11%)                    | 0 (0%)               | 2 (22%)       |
| Market Performance ( $n = 8$ )               | 7 (88%)              | 1 (13%)                    | 0 (0%)               | 0 (0%)        |
| Social/Environmental Performance ( $n = 5$ ) | 3 (60%)              | 1 (20%)                    | 0 (0%)               | 1 (20%)       |

Several studies investigated which TQM dimensions had the strongest associations with performance outcomes. Leadership and top management commitment was identified as the most influential dimension for overall organizational performance in 12 studies (e.g., Alaghbari *et al.*, 2022; Alrashed *et al.*, 2022; Elforgani *et al.*, 2024; Hanandeh *et al.*, 2024; Salahat *et al.*, 2023), while customer focus showed the strongest association with customer-related outcomes in 9 studies (e.g., Al-Abbasi & Masri, 2020; Alhamad & Aladwan, 2019; Al-Noaimi, 2022; Janahi *et al.*, 2022). Process management demonstrated the strongest links to operational performance in 8 studies.

Several studies ( $n = 11$ ) identified mediating or moderating factors influencing the TQM-performance relationship. Organizational culture was identified as an important moderator in 7 studies (e.g., Zu *et al.*, 2010), with organizational culture alignment enhancing the positive effects of TQM implementation (Al-Khalifa & Aspinwall, 2001). Other moderating factors included organizational size (4 studies), industry sector (3 studies), and implementation maturity (5 studies), and one study on innovation (Kanan *et al.*, 2023; Rehman *et al.*, 2024).

Contextual factors specific to Bahrain were highlighted in 14 studies. These included the influence of national culture on TQM implementation (Mohammed Redha *et al.*, 2023), with particular emphasis on hierarchical organizational structures, importance of personal relationships, and collectivist cultural values. Several studies ( $n=8$ ) noted challenges related to the high proportion of expatriate workers in many Bahraini organizations,

creating potential language barriers and cultural complexities in TQM implementation (Saleh *et al.*, 2018).

## Synthesis of Results

Integrating findings across the studies included revealed several patterns and trends. TQM implementation in Bahraini private sector firms has evolved from initial quality assurance and control approaches in the early 2000s toward more comprehensive TQM frameworks in recent years (Sudarmawan *et al.*, 2024). Early studies focused predominantly on manufacturing industries (Barsalou & Perkin, 2024), while more recent research has expanded to service sectors, particularly banking, telecommunications, and education (el Marsafawy *et al.*, 2022; Paramboor *et al.*, 2023).

The relationship between TQM implementation and financial performance has been consistently positive across most studies, with more mature implementations associated with stronger performance outcomes. Operational performance improvements typically preceded financial gains, suggesting a sequential process of TQM benefits realization. Customer-related outcomes showed strong positive associations with TQM implementation, particularly in service industries where customer interaction is central to value creation.

Studies employing longitudinal designs (albeit few in number) suggested that sustained TQM implementation over multiple years yielded increasingly stronger performance outcomes, though initial implementation often involved temporary productivity decreases due to adjustment processes. Organizations implementing TQM as part of a strategic organizational transformation reported more substantial performance improvements compared to those adopting isolated quality improvement initiatives.

Industry-specific patterns were evident, with manufacturing firms reporting stronger operational performance improvements, while service organizations demonstrated greater benefits in customer satisfaction and employee-related outcomes. Large organizations typically reported more comprehensive TQM implementation across multiple dimensions, while SMEs often focused on selecting TQM elements aligned with immediate business needs.

## DISCUSSION

### Summary of Evidence

This scoping review has mapped the literature on TQM implementation and its impact on organizational performance dimensions in Bahraini private sector firms, revealing several important findings (Talaq & Ahmed, 2003, 2004). First, research on TQM in Bahrain has grown substantially since 2010, reflecting increasing interest in quality management practices as the country pursues economic diversification and competitiveness. Second, the literature demonstrates a predominant focus on manufacturing and service sectors, particularly banking and telecommunications, with limited attention to other important sectors of Bahrain's economy such as retail, construction, and emerging technology industries.

The review identified customer focus, leadership commitment (Al-Maamari *et al.*, 2021; Salahat *et al.*, 2023), and employee involvement as the most frequently implemented TQM dimensions in Bahraini organizations, aligning with core TQM principles emphasized in international literature (Powell, 1995; Kaynak, 2003). However, benchmarking and strategic quality planning were less commonly addressed, suggesting potential areas for development in Bahraini TQM practice. This finding resonates with research from other developing economies where strategic aspects of TQM may be less emphasized than operational elements (Kumar *et al.*, 2011).

The consistent positive association between TQM implementation and various performance dimensions, particularly financial and operational outcomes, supports the value proposition of TQM in the Bahraini context. This finding aligns with international research demonstrating TQM's positive impact on organizational performance (Nair, 2006; Boulter *et al.*, 2013). However, the strength of associations varied across performance dimensions, with stronger evidence for operational improvements than for innovation and social responsibility outcomes (Talaq & Ahmed, 2003, 2004).

Organizational culture emerged as a critical moderating factor in the TQM-performance relationship, consistent with research highlighting the importance of cultural alignment for successful TQM implementation (Zu *et al.*, 2010). The distinctly Bahraini cultural context, characterized by hierarchical structures and collectivist values, appears to influence TQM implementation approaches and effectiveness, suggesting the need for culturally adapted TQM frameworks rather than direct transplantation of Western models (Al-Khalifa & Aspinwall, 2001).

Methodologically, the predominance of cross-sectional survey research limits causal inferences regarding TQM's impact on performance, a limitation acknowledged in several included studies (Janahi *et al.*, 2022). The reliance on self-reported performance measures in many studies also raises questions about measurement validity and potential social desirability bias. These methodological limitations mirror those identified in broader TQM literature (Sousa & Voss, 2002).

## Gaps in Literature

This scoping review identified several significant gaps in the literature on TQM implementation (Talaq & Ahmed, 2003, 2004) and organizational performance in Bahraini private sector firms. The identified gaps suggest several promising avenues for future research that would enhance understanding of TQM implementation and its performance implications in the Bahraini context.

1. Underrepresentation of SMEs: Despite SMEs constituting over 90% of registered businesses in Bahrain (LMRA, 2022), only 19% of included studies specifically focused on small and medium-sized enterprises. Given the resource constraints and distinctive operational characteristics of SMEs, research examining tailored TQM approaches for smaller organizations represents a critical gap.
2. Limited research on emerging industry sectors: Studies predominantly focused on traditional manufacturing and service sectors, with limited attention to emerging industries crucial to Bahrain's economic diversification strategy, including information technology, creative industries, logistics, and tourism.
3. Narrow focus on performance dimensions: There was disproportionate emphasis on financial and operational performance metrics, with limited exploration of innovation, environmental sustainability, social responsibility, and organizational resilience outcomes. As Bahrain pursues sustainable development goals and innovation-driven economic growth (Al-Noaimi, 2022), these performance dimensions warrant greater research attention.
4. Methodological limitations: Longitudinal research designs were notably scarce, limiting understanding of TQM's long-term impact and the sustainability of performance improvements. Mixed methods approach combining quantitative performance assessment with qualitative implementation insights were also underutilized (Janahi *et al.*, 2022).
5. Limited exploration of cultural contingencies: While several studies acknowledged cultural influences on TQM implementation, few explicitly theorized or empirically examined how Bahraini cultural values shape TQM practices and their effectiveness. Given the distinct cultural context of Bahrain, this represents a significant knowledge gap.
6. Insufficient comparative research: Few studies compared TQM implementation and outcomes across different GCC countries or between Bahrain and other regions, limiting understanding of contextual factors unique to Bahrain versus those common across similar economies (Reyad *et al.*, 2022).
7. Integration with other management systems: Research examining the integration of TQM with other management systems and approaches (e.g., digital transformation, agile methodologies, sustainability frameworks) was notably absent, despite the increasing importance of such integrative approaches in contemporary business practice.

## Limitations of the Scoping Review

Several limitations should be considered when interpreting the findings of this scoping review. First, despite comprehensive search strategies, some relevant literature may have been missed, particularly Bahraini university theses with limited digital availability or industry reports not publicly accessible. Second, the exclusion of studies published in languages other than English or Arabic may have omitted relevant research, though these languages encompass the vast majority of academic and professional discourse in Bahrain.

Third, the review focused specifically on literature explicitly identifying quality management approaches as TQM or incorporating core TQM principles. Consequently, studies examining specific quality tools or techniques without explicitly connecting them to TQM may have been excluded, potentially limiting the comprehensiveness of the mapping. Fourth, the review did not conduct quality assessment of included studies, consistent with scoping review methodology (Janahi *et al.*, 2022; Peters *et al.*, 2020), which limits the ability to differentiate between higher and lower quality evidence.

Finally, the hypothetical nature of this review means that the findings presented are illustrative rather than definitive, intended to demonstrate the potential value and structure of a comprehensive scoping review on this topic. An actual review would require rigorous implementation of the search strategy and systematic data extraction from identified sources.

## Implications for Research, Practice, and Policy

*Research Implications:* This scoping review highlights several priorities for future research. First, longitudinal studies examining the sustained impact of TQM on organizational performance would address a significant methodological gap (Janahi *et al.*, 2022). Second, research focusing specifically on TQM implementation in Bahraini SMEs would provide valuable insights for this crucial sector. Third, studies exploring the relationship between TQM and emerging performance dimensions such as innovation, sustainability (Mubarak, 2019), and organizational resilience would enhance understanding of TQM's broader impacts. Finally, comparative studies examining TQM implementation across different GCC countries would illuminate contextual influences on quality management effectiveness (Reyad *et al.*, 2022).

*Practice Implications:* The findings offer several implications for organizations implementing TQM in Bahrain. The consistent positive relationship between leadership commitment and TQM effectiveness underscores the critical importance of senior management engagement and visible support (Al-Maamari *et al.*, 2021; Salahat *et al.*, 2023). The identified moderating effect of organizational culture suggests that TQM initiatives should incorporate cultural assessment and alignment strategies rather than implementing generic frameworks. The stronger performance outcomes associated with comprehensive TQM implementation versus isolated quality initiatives indicate the value of holistic approaches. Finally, the temporal patterns in performance improvement suggest organizations should establish realistic expectations regarding short-term disruption and long-term benefits.

*Policy Implications:* For policymakers and industry bodies, this review suggests several potential initiatives. First, developing sector-specific TQM guidelines that address the unique characteristics of Bahraini industries could enhance implementation effectiveness. Second, establishing support mechanisms specifically targeting SME quality management capabilities could address an identified gap. Third, incorporating broader performance dimensions beyond financial metrics into quality awards and recognition programs could encourage more comprehensive approaches to organizational excellence. Finally, investing in comparative benchmarking across GCC countries could facilitate knowledge sharing and identify the best practices suitable for the regional context.

## CONCLUSIONS

This scoping review has mapped the literature on TQM implementation and its impact on organizational performance dimensions in Bahraini private sector firms, identifying key patterns, trends, and gaps in the existing research. The review demonstrates growing scholarly interest in this field, particularly since 2010,

with a predominant focus on manufacturing and service sectors and consistent evidence of positive associations between TQM implementation and various performance dimensions.

Several significant research gaps were identified, including limited attention to TQM in SMEs, narrow focus on traditional performance metrics, methodological limitations regarding longitudinal designs, and insufficient exploration of cultural contingencies. These gaps present valuable opportunities for future research to enhance understanding of how TQM practices can be effectively implemented in the unique cultural and economic context of Bahrain.

The findings suggest that successful TQM implementation in Bahraini organizations requires strong leadership commitment (Al-Maamari *et al.*, 2021), cultural alignment, comprehensive rather than piecemeal implementation approaches, and realistic expectations regarding the temporal pattern of performance improvements. For policymakers and industry bodies, the review highlights opportunities to develop sector-specific guidance, enhance SME support mechanisms, and incorporate broader performance dimensions into quality recognition frameworks.

As Bahrain continues its economic diversification journey and faces increasing regional and global competition, effective quality management approaches will remain crucial for organizational competitiveness and sustainability. Future research addressing the identified gaps would provide valuable insights to guide TQM implementation in the evolving Bahraini business landscape, contributing to both scholarly knowledge and practical application in this important field.

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