

Examining the Effects of Total Quality Management on Operational Performance, Quality Performance, and Employee Performance

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Abstract: The banking sector is one of the most significant service industries contributing to a country's economic development. The increasing complexity of banking operations necessitates continuous improvements in organizational quality to remain competitive in an increasingly globalized business environment. One of the most widely adopted approaches to enhancing organizational quality is Total Quality Management (TQM). TQM can be implemented in all industries, including service industries. Banks primarily provide intangible services; thus, their operational performance encompasses not only financial metrics but also service quality. This study examines the relationship between TQM practices and operational, quality, and employee performance in conventional commercial banks in Indonesia. This study uses Structural Equation Modeling (SEM) as the statistical analysis technique, and the sample consists of 300 employees from several conventional commercial banks in Indonesia. The findings indicate that TQM practices are positively associated with operational and employee performance in the banking sector.

Keywords: *Total Quality Management, Operational Performance, Employee Performance, Quality Performance.*

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INTRODUCTION

The increasing complexity of the global financial services industry has fundamentally changed the way organizations pursue sustainable competitive advantage. Financial institutions are no longer evaluated solely on their financial performance but also on their ability to consistently deliver high-quality services, improve operational efficiency, and create superior customer experiences. In this context, TQM has evolved from a quality improvement technique into a comprehensive management philosophy that integrates organizational strategy and continuous improvement (Bahia et al., 2023). Rather than focusing solely on product or service quality, TQM encourages organizations to build an organizational culture in which every business process is continuously evaluated and improved to achieve long-term organizational excellence. Consequently, many organizations have adopted TQM not only as an operational initiative but also as a strategic capability that enhances organizational resilience in an increasingly dynamic and competitive environment.

Unlike manufacturing companies, banks primarily provide intangible services where customer perceptions are strongly influenced by service consistency,

responsiveness, reliability, accuracy, and employee professionalism. Therefore, operational performance in the banking industry extends beyond financial indicators to include service quality, customer satisfaction, operational efficiency, process reliability, and employee productivity. TQM provides an integrated management framework that improves these multidimensional performance outcomes through systematic quality planning, standard operating procedures, customer orientation, and continuous performance evaluation. Therefore, implementing TQM principles is becoming increasingly important for banks seeking to maintain customer trust.

Competition in Indonesia's banking sector has intensified since the implementation of banking liberalization policies, as marked by the issuance of banking reform measures. One major consequence of this policy was the simplification of procedures for establishing new banks, which substantially increased the number of banking institutions. To remain competitive, banks have continuously sought to enhance customer satisfaction by reviewing their operational efficiency and improving employee satisfaction, both of which are strategic priorities for banking institutions (Dam, 2023).

To sustain their competitive advantage, banks must continuously improve operational, employee, and quality performance. Various quality management approaches have been proposed to achieve these objectives; however, TQM is among the most widely adopted and recommended approaches. TQM is an integrated and effective system for quality development, quality maintenance, and quality improvement across all organizational functions to achieve the most economical level of operation while ensuring complete customer satisfaction (Jadhav, 2025). TQM involves numerous variables employed to evaluate and enhance company performance (Rahmatika et al., 2024).

Recent empirical evidence further supports the strategic importance of TQM in improving organizational performance across various industry sectors. A systematic review conducted by Alateyyat et al. (2024) shows that TQM practices consistently contribute to organizational performance across multiple organizational dimensions, including customer satisfaction, process efficiency, innovation capability, employee engagement, and strategic competitiveness. The review emphasized that organizations that comprehensively implement TQM are better able to adapt to environmental changes because quality management principles are embedded in organizational routines rather than remaining isolated operational practices. This finding suggests that sustainable organizational performance depends not only on the adoption of quality management tools but also on the organization's ability to integrate quality-oriented values into its strategic and managerial decision-making processes.

Recent research has increasingly recognized TQM as a strategic organizational capability rather than merely a quality improvement approach. Drawing on the Resource-Based View (RBV), TQM enables organizations to develop valuable, rare, and difficult-to-imitate capabilities through continuous improvement, organizational learning, customer focus, and standardized quality routines. When these quality management practices become embedded in organizational culture and managerial decision-making, they strengthen innovation capability and enhance organizational performance, thereby contributing to sustainable competitive advantage (Xu et al., 2026).

In addition, recent empirical studies suggest that top management commitment represents one of the most critical determinants of successful TQM implementation. Leadership commitment encourages employee participation, facilitates continuous improvement initiatives, allocates organizational resources effectively, and strengthens a

quality-oriented organizational culture. Consequently, organizations with strong managerial commitment are more likely to achieve higher performance among both organizations and employees (Bashar et al., 2024).

Recent empirical evidence indicates that employee involvement and continuous training are fundamental practices for the successful implementation of TQM. These practices foster organizational learning by enhancing employees' knowledge and skills and encouraging active participation in continuous improvement initiatives. As organizational learning develops, it strengthens innovation capability and significantly improves organizational performance, highlighting the strategic role of human resource development in achieving sustainable quality management outcomes (Tajouri & Lakhal, 2024).

Previous studies have extensively examined the relationship between TQM practices and employee performance, including employee absenteeism and job satisfaction. Sadikoglu & Zehir (2010), Flynn et al. (1995), and Sila (2007) reported that TQM practices have a positive and significant effect on employee performance. Furthermore, Psomas & Jaca (2016), in their study of service organizations in Spain, found a positive relationship between TQM practices and operational performance, particularly in terms of productivity, effectiveness, and efficiency. Similarly, the empirical study by Grandzol & Gershon (1998) demonstrated that employee fulfillment positively influences operational performance as measured by productivity and efficiency.

Recent empirical evidence demonstrates that the effectiveness of TQM is fundamentally reflected in its ability to enhance employee performance. The systematic implementation of TQM practices, including continuous improvement, employee involvement, and customer orientation, facilitates higher levels of employee effectiveness and productivity, which subsequently translate into superior organizational performance. This evidence underscores the pivotal role of employee performance as a critical mediating mechanism through which TQM generates organizational value and strengthens overall organizational effectiveness (Fajriah et al., 2026)

Although the positive relationship between TQM and organizational performance has been widely documented, previous studies have predominantly focused on manufacturing organizations and industrial production environments. Comparatively limited attention has been devoted to service organizations, particularly banking institutions operating in developing countries, where service quality, customer interaction, and knowledge-intensive processes represent the primary determinants of organizational success. Moreover, many previous studies have investigated only selected TQM dimensions, resulting in a fragmented understanding of how multiple critical success factors collectively influence organizational performance. Consequently, further investigation is required to provide a more comprehensive understanding of the integrated effects of TQM practices within the banking industry.

Recent conceptual developments further suggest that TQM contributes to organizational innovation capability by strengthening organizational learning, process integration, and knowledge management. In the banking sector, these quality-oriented capabilities enable organizations to improve service innovation while maintaining operational consistency and customer satisfaction (Ahinful et al., 2023). The evolution of quality management has recently progressed toward the concept of Quality 4.0, which integrates traditional TQM principles with digital technologies and data-driven decision-making. Despite these technological developments, the fundamental principles of TQM,

including customer focus, continuous improvement, employee involvement, and process management, remain the foundation for improving organizational performance. The integration of digital technologies with TQM practices enables organizations to strengthen operational efficiency, service quality, and organizational competitiveness in increasingly dynamic business environments (Liu et al., 2023).

In addition to addressing the limited empirical evidence on the implementation of TQM in the Indonesian banking sector, this study offers a further contribution by extending the evaluation of TQM outcomes beyond organizational performance. While previous studies have predominantly focused on the relationship between TQM practices and organizational performance, recent research has demonstrated that TQM also exerts significant effects on multiple organizational outcomes, including employee performance, innovation performance, and other dimensions of organizational effectiveness, suggesting that its impact extends beyond conventional performance indicators (Monday et al., 2024). Accordingly, this study simultaneously examines the effects of TQM on three complementary performance dimensions: organizational, quality, and employee performance. This multidimensional approach provides a more comprehensive understanding of the effectiveness of TQM implementation, recognizing that quality management practices are expected not only to improve organizational outcomes but also to enhance service quality and employee performance, which are key drivers of long-term organizational competitiveness. By integrating these three performance dimensions into a single empirical framework, this study contributes to the TQM literature by providing a broader assessment of how critical TQM practices generate value at both the organizational and individual levels within the banking industry.

Therefore, the purpose of this study is to investigate the relationships between TQM practices and operational performance, employee performance, and quality performance in conventional commercial banks classified as BUKU 3 and BUKU 4 operating in the Surabaya and Sidoarjo regions.

RESEARCH METHODS

The measurement indicators for the TQM dimensions, employee performance, and operational performance were adapted from previous studies by Sadikoglu & Zehir (2010), Kaynak (2003), Talib et al. (2013), Qasrawi et al. (2017), Brah et al. (2000), and Psomas & Jaca (2016). The questionnaire employed a five-point Likert scale. For the TQM construct, responses ranged from 1 ("Strongly Disagree") to 5 ("Strongly Agree"), indicating respondents' level of agreement with each statement. For the performance constructs, responses ranged from 1 ("Very Low") to 5 ("Very High"), reflecting respondents' perceptions of the performance level associated with each measurement item.

This study employed a quantitative research approach with an explanatory research design to examine the relationships among the proposed variables. A cross-sectional survey was conducted, in which data were collected at a single point in time to capture respondents' perceptions of organizational practices and performance. The respondents were employees of conventional commercial banks classified as BUKU 3 and BUKU 4 operating in the Surabaya and Sidoarjo regions. At the time of the study, the BUKU (Bank Umum Berdasarkan Kegiatan Usaha) classification categorized Indonesian commercial banks according to their core capital. BUKU 3 banks had core capital ranging from IDR 5

trillion to less than IDR 30 trillion, whereas BUKU 4 banks had core capital of at least IDR 30 trillion.

A total of 450 questionnaires were distributed to the participating banks. Respondents were asked to provide subjective (perceptual) assessments regarding the implementation of TQM practices and the performance of the banks in which they were employed. Data were collected primarily through face-to-face administration of the questionnaires, with a smaller proportion obtained through an online survey. Of the 450 questionnaires distributed, 300 were completed and deemed suitable for analysis, resulting in a response rate of 66.67%.

The data were analyzed with Structural Equation Modeling (SEM), an advanced technique that examines complex relationships among observed and latent variables within a theoretical framework. SEM combines aspects of factor analysis and multiple regressions to estimate direct, indirect, and mediating effects among constructs.

Unlike traditional regression approaches, SEM enables evaluation of both measurement models (via Confirmatory Factor Analysis [CFA]) and structural models within a single analytical process, ensuring construct validity and supporting causal inference. This methodological strength makes SEM particularly suitable for studies that investigate the theoretical relationships among management practices, organizational processes, and performance outcomes,

RESULTS AND DISCUSSION

Table 1 resents a summary of the respondents' demographic characteristics:

Table 1. Summary of Respondent Characteristics

Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Male	118	39,3
	Female	182	60,7
Bank Category	BUKU 3	133	44,33
	BUKU 4	167	55,67
FPosition	Front Office	139	46,3
	Back Office	66	22,0
	Marketing	46	15,3
	Manager / Head Officer	41	13,7
	Branch Manager	8	2,7
Length of Employment	< 1 year	31	10,3
	< 3 years	79	26,3
	< 5 years	47	15,7
	> 5 years	143	47,7

Source: Authors' own calculations based on survey data

Structural Model Analysis

The structural model was analyzed using the Maximum Likelihood Estimation (MLE) method. Based on the literature review and the objectives of the study, the proposed structural model was developed as illustrated in Figure 1:

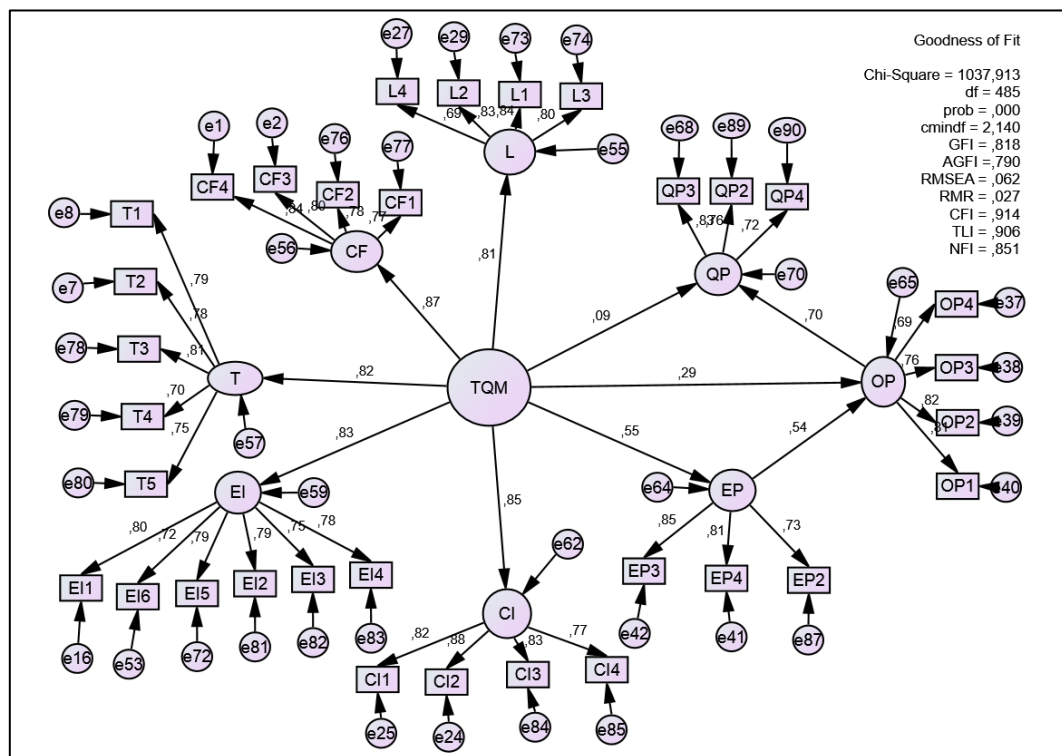


Figure 1. Structural Model of the Relationship Between TQM and Firm Performance

Source: Authors' own compilation

To determine whether the observed data support the proposed structural model, the model fit was evaluated using goodness-of-fit indices. The results of the goodness-of-fit assessment for the structural model are presented in Table 2 :

Table 2. Goodness-of-Fit Assessment of the Structural Model

Goodness of Fit Measure	Cut-off V Alue	Obtained Value	Interpretation
Chi-square of estimated model	$0 \leq X^2 \leq 2 \text{ df}$ $2 \text{ df} \leq X^2 \leq 3 \text{ df}$	df = 485 $X^2 = 1037,913$	Acceptable
Probability Chi-Square	$\geq 0,05$	0,000	Poor Fit
Cmin-df	< 3 good < 5 sometimes permissible	2,140	Good Fit
GFI	$GFI > 0,9$ $0,80 < GFI < 0,90$	0,818	Acceptable
AGFI	$AGFI > 0,89$ $0,80 < AGFI < 0,89$	0,790	Poor Fit
RMSEA	< 0,05 good 0,5 – 10 moderate > 10 bad	0,062	Acceptable
ECVI	Close to the saturated ECVI value (3,753)	3,980	Poor Fit
TLI	$TLI \geq 0,9$ $0,80 < TLI < 0,90$	0,906	Good Fit
NFI	$NFI > 0,90$ $0,80 < NFI < 0,90$	0,851	Acceptable
RFI	$RFI > 0,90$ $0,80 < RFI < 0,90$	0,838	Acceptable
IFI	$IFI > 0,90$	0,915	Good Fit

Goodness of Fit Measure	Cut-off V Alue	Obtained Value	Interpretation
RMR	• 0,80 < IFI < 0,90	0,027	Good Fit
CFI	• $\leq 0,05$	0,914	Acceptable
PGFI	• CFI > 0,97		
PNFI	• 0,90 < CFI < 0,97		
Model AIC	• $\geq 0,5$	0,707	Good Fit
Model CAIC	• $\geq 0,5$	0,782	Good Fit
	Close to the saturated AIC value (1122,000)	1189,913	Poor Fit
	Close to the saturated CAIC value (3760,822)	1547,401	Good Fit

Source: Authors' own calculations based on survey data

As shown in Table 2, several goodness-of-fit indices did not meet the recommended threshold values. Specifically, the chi-square probability remained at 0.000, the AGFI was below the recommended cut-off of 0.90, and neither the ECVI nor the AIC indicated an adequate model fit. The significant chi-square probability ($p < 0.05$) suggests that the proposed structural model did not adequately fit the observed data. Therefore, the model was modified to improve overall fit and achieve an acceptable level of goodness of fit before proceeding with hypothesis testing.

SEM Model Modification

The structural equation model was modified to improve the overall model fit by reducing the chi-square value. A lower chi-square statistic generally indicates a better fit between the proposed model and the observed data (Santoso, 2018). Model modification was performed using the modification indices provided by AMOS. The results of the modified SEM model are presented in Figure 2:

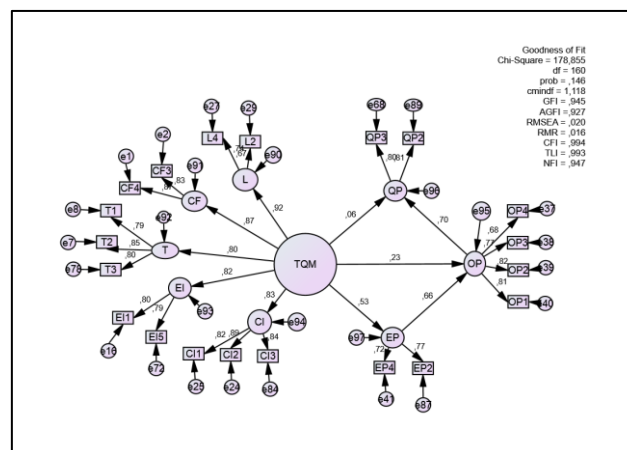


Figure 2. Modified Structural Model of the Effects of TQM on Firm Performance

Source: Authors' own calculations based on survey data

Following the structural model modification, the revised model's goodness of fit was re-evaluated to determine whether it adequately fit the observed data. The results of the goodness-of-fit assessment for the modified structural model are presented in Table 3:

Table 3. Goodness-of-Fit Assessment of the Modified Structural Model

Goodness of Fit Measure	Cut-off Value	Before Modification	After Modification	Interpretation
Chi-square of estimated model	$0 \leq X^2 \leq 2 \text{ df}$ $2 \text{ df} \leq X^2 \leq 3 \text{ df}$	df = 485 $X^2 = 1037, 913$	df = 160 $X^2 = 178,855$	Good Fit
Probability Chi-Square	$\geq 0,05$	0,000	0,146	Good Fit
Cmin-df	< 3 good < 5 sometimes permissible	2,140	1, 118	Good Fit
GFI	$\text{GFI} > 0,9$ $0,80 < \text{GFI} < 0,90$	0,818	0,945	Good Fit
AGFI	$\text{AGFI} > 0,89$ $0,80 < \text{AGFI} < 0,89$	0,790	0,927	Good Fit
RMSEA	< 0,05 good 0,5 – 10 moderate > 10 bad	0,062	0,020	Good Fit
ECVI	Close to the saturated ECVI value	3,980 (Saturated: 3,753)	0,933 (Saturated: 1,405)	Good Fit
TLI	$\text{TLI} \geq 0,9$ $0,80 < \text{TLI} < 0,90$	0,906	0,993	Good Fit
NFI	$\text{NFI} > 0,90$ $0,80 < \text{NFI} < 0,90$	0,851	0,947	Good Fit
RFI	$\text{RFI} > 0,90$ $0,80 < \text{RFI} < 0,90$	0,838	0,937	Good Fit
IFI	$\text{IFI} > 0,90$ $0,80 < \text{IFI} < 0,90$	0,915	0,994	Good Fit
RMR	$\leq 0,05$	0,027	0,016	Good Fit
CFI	$\text{CFI} > 0,97$ $0,90 < \text{CFI} < 0,97$	0,914	0,994	Good Fit
PGFI	$\geq 0,5$	0,707	0,720	Good Fit
PNFI	$\geq 0,5$	0,782	0,798	Good Fit
Model AIC	Close to the saturated AIC value	1189,913 (Saturated: 1122,000)	278, 855 (Saturated: 420, 000)	Good Fit
Model CAIC	Close to the saturated CAIC value	1547,401 (Saturated: 3760,822)	514, 045 (Saturated: 1407, 794)	Good Fit

Source: Authors' own calculations based on survey data

Based on the results in Table 3, all goodness-of-fit indices met the recommended thresholds, indicating that the modified structural model achieved a satisfactory fit. Notably, the chi-square statistic decreased substantially following model modification. In addition, the chi-square probability value increased to 0.146, exceeding the recommended threshold of 0.05, which indicates that the overall model adequately fits the observed data. Having established an acceptable model fit, the structural model was subsequently evaluated through causal and hypothesis testing.

Hypothesis Testing

After the structural model was confirmed to have an acceptable fit, hypothesis testing was conducted by examining the regression weights and standardized regression weights. The significance of the hypothesized relationships was assessed using the Critical Ratio (C.R.) and the corresponding probability (p-value). A hypothesized relationship was

considered to be positive and statistically significant when the p-value was less than 0.05, and the Critical Ratio (C.R.) was greater than or equal to 1.65 for a one-tailed hypothesis test (Santoso, 2018).

Table 4. Hypothesis Testing Results

Path	C.R	P value	Hypothesis
EP <--- TQM	6,639	***	Supported
OP <--- TQM	3,202	0,001	Supported
QP <--- TQM	0,800	0,424	Not Supported
OP <--- EP	6,894	***	Supported
QP <--- OP	7,723	***	Supported

Source: Authors' own calculations based on survey data

Based on the results presented in Table 4, four of the five proposed hypotheses were supported:

1. H1 proposed that TQM has a positive effect on employee performance. The results showed a Critical Ratio (C.R.) of 6.639, exceeding the threshold value of 1.65, with a p-value below 0.05. Therefore, H1 was supported.
2. H2 proposed that TQM has a positive effect on operational performance. The estimated C.R. was 3.202, which exceeded the critical value of 1.65, and the corresponding p-value was less than 0.05. Thus, H2 was supported.
3. H3 proposed that TQM influences quality performance. However, the estimated C.R. was only 0.800, which was below the critical value of 1.65, and the p-value (0.424) exceeded the significance level of 0.05. Therefore, H3 was not supported, indicating that TQM did not have a statistically significant effect on quality performance.
4. H4 proposed that employee performance positively affects operational performance. The analysis yielded a C.R. of 6.894 with a p-value below 0.05, indicating a statistically significant positive relationship. Accordingly, H4 was supported.
5. H5 proposed that operational performance positively affects quality performance. The results indicated a C.R. of 7.723, exceeding the critical value of 1.65 and yielding a p-value below 0.05. Therefore, H5 was supported.

Following the hypothesis testing, the strength of the relationships among the constructs was examined using standardized regression coefficients. This analysis was conducted only for the supported hypotheses, as H3 did not demonstrate a statistically significant relationship. According to Santoso (2018), a standardized coefficient of 0.50 or higher generally indicates a strong relationship, whereas values below this threshold suggest a relatively weak relationship. The results of the relationship strength analysis for the supported hypotheses are presented in the following section:

Table 5. Standardized Path Coefficients for the Supported Hypotheses

Path	Standardized Regression Weight	Strength of Relationship
EP <--- TQM	0,533	Strong
OP <--- TQM	0,229	Weak
OP <--- EP	0,655	Strong
QP <--- OP	0,698	Strong

Source: Authors' own calculations based on survey data

As shown in Table 5, most of the supported hypotheses exhibited strong relationships, as indicated by standardized path coefficients greater than 0.50. Specifically, the relationships between TQM and employee performance ($\beta = 0.533$),

employee performance and operational performance ($\beta = 0.655$), and operational performance and quality performance ($\beta = 0.698$) were classified as strong. In contrast, although the relationship between TQM and operational performance was statistically significant, its standardized path coefficient was only 0.229, indicating a relatively weak relationship. This finding suggests that while TQM has a significant positive effect on operational performance, its direct effect is comparatively small.

Discussion

The findings indicate that TQM practices have significant positive effects on employee performance and operational performance. Recent empirical evidence indicates that effective TQM implementation not only improves operational performance but also depends on strong leadership, employee technical competence, and a supportive organizational culture. These factors collectively strengthen the successful implementation of TQM and contribute to sustainable organizational performance (Wiyatno et al., 2024). However, TQM does not have a statistically significant direct effect on quality performance. In addition, employee performance positively influences operational performance, which in turn positively affects quality performance. These findings provide empirical evidence regarding the mechanisms through which TQM contributes to organizational performance in the Indonesian banking sector.

TQM and Employee Performance

The SEM results support H1, indicating that TQM practices positively influence employee performance. Greater implementation of TQM dimensions, including leadership, customer focus, training, employee involvement, and continuous improvement, is associated with higher levels of employee performance. Specifically, effective TQM implementation enhances employees' pride in their work, their ability to serve customers, and their overall job satisfaction. These findings are consistent with those of Sadikoglu & Zehir (2010), who reported that TQM positively affects employee performance. Similarly, Talib et al. (2013) found that TQM practices improve employee performance in service organizations. Recent research suggests that TQM contributes positively to employee performance by fostering continuous improvement, employee engagement, and quality-oriented work practices. Moreover, performance review systems that are aligned with TQM principles provide continuous feedback, encourage employee learning, and support the achievement of organizational quality objectives. Consequently, organizations that effectively integrate TQM with performance review systems are more likely to achieve higher employee performance (Liao et al., 2024).

TQM and Operational Performance

The results also support H2, indicating that TQM positively affects operational performance. Although the standardized path coefficient indicates a relatively weak relationship, the effect remains statistically significant. This finding implies that TQM contributes to improvements in organizational productivity, efficiency, effectiveness, and reputation by delivering high-quality services. These results are consistent with the findings of Psomas & Jaca (2016), who reported a positive relationship between TQM practices and operational performance in service organizations. Likewise, Sila (2007) argued that TQM practices that emphasize process management improve productivity by promoting the effective use of organizational processes and human resources. Recent studies further indicate that TQM enhances operational performance by strengthening organizational capabilities, improving knowledge sharing, and encouraging innovation-

oriented process management. Consequently, organizations become more adaptable to environmental changes while maintaining operational efficiency and service quality (Koomson, 2025).

TQM and Quality Performance

The results do not support H3, indicating that TQM does not have a statistically significant direct effect on quality performance. In the present study, TQM dimensions, including leadership, customer focus, training, employee involvement, and continuous improvement, did not directly improve quality performance within the banking sector. These findings are consistent with those of Prajogo & Sohal (2004), who also found that TQM does not necessarily directly influence quality performance. They further suggested that the relationship may emerge through more complex interactions among TQM practices or through mediating organizational variables. This finding is further supported by recent evidence from Shuaib & He (2024), who reported that TQM practices did not directly influence business performance but instead affected performance indirectly through organizational learning, suggesting that the effectiveness of TQM depends on complementary organizational capabilities and mediating mechanisms.

Employee Performance and Operational Performance

The findings support H4, demonstrating that employee performance positively influences operational performance. This result suggests that improvements in employee performance contribute directly to higher organizational productivity and operational efficiency. The findings are consistent with Grandzol & Gershon (1998), who reported that employee fulfillment positively affects operational performance as reflected in productivity and efficiency. Similarly, Amin et al. (2017) found that employees who are satisfied with their jobs tend to exhibit higher productivity. Furthermore, Sadikoglu & Zehir (2010) argued that satisfied employees are more likely to remain with the organization, thereby reducing employee turnover and recruitment costs while improving operational efficiency.

Operational Performance and Quality Performance

The findings support H5, indicating that operational performance has a significant positive effect on quality performance. This result suggests that TQM contributes to quality performance indirectly through operational performance. Therefore, improvements in productivity, efficiency, and operational effectiveness ultimately enhance service quality and customer satisfaction. An important finding of this study is that although TQM significantly improves operational performance, its direct effect is relatively weak. This suggests that banks should identify which specific dimensions of TQM most effectively enhance operational performance, thereby strengthening its indirect contribution to quality performance. Given the strategic importance of quality performance in maintaining customer satisfaction and competitive advantage, further research should investigate the organizational mechanisms through which TQM enhances operational performance. These findings are consistent with Psomas & Jaca (2016), who found that operational performance mediates the relationship between TQM practices and quality performance in service organizations. Recent literature also suggests that operational performance and quality performance are reinforced by organizational culture and employee engagement. Organizations with stronger quality-oriented cultures tend to achieve more sustainable quality improvements because employee values and engagement facilitate the successful implementation of TQM practices (Al-Ababneh,

2021). Their study demonstrated that improvements in operational efficiency and effectiveness contribute to better service quality and greater fulfillment of customer requirements.

Managerial Implications

The findings provide several practical implications for banking organizations. First, the proposed model may serve as a useful framework for evaluating the implementation of TQM practices and their effects on operational, employee, and quality performance. Second, the positive relationships identified in this study suggest that bank managers should continue investing in leadership development, employee training, employee involvement, customer-oriented practices, and continuous improvement initiatives to strengthen organizational performance. Particular attention should be given to improving employee satisfaction, motivation, and organizational commitment, as human resources remain a critical determinant of successful TQM implementation and sustainable competitive advantage.

Research Implications

1. The relatively weak direct effect of TQM on operational performance suggests that banks should strengthen organizational systems that support the effective implementation of TQM. Greater emphasis should be placed on improving productivity, efficiency, and operational effectiveness, as operational performance was found to play an important role in enhancing quality performance.
2. Furthermore, this study found no significant direct relationship between TQM and quality performance. Although previous studies have often reported conflicting findings, the present results suggest that banking institutions should pay greater attention to customer-focused TQM practices and identify which TQM dimensions most strongly contribute to service quality and customer satisfaction. Future studies are encouraged to examine additional mediating or moderating variables that may explain this relationship.

Research Limitations

This study has several limitations. First, the data were collected using self-reported questionnaires, which may have introduced social desirability bias, as some respondents may have provided responses that portrayed their organizations more favorably. Second, because most respondents were non-managerial employees, they may not have been able to evaluate overall organizational performance accurately. These issues may limit the validity and generalizability of the findings. Nevertheless, the measurement model demonstrated satisfactory reliability and construct validity, suggesting that these potential biases are unlikely to have substantially affected the study's overall conclusions.

CONCLUSION AND RECOMMENDATIONS

The findings of this study highlight the importance of implementing TQM practices in conventional commercial banks. The results demonstrate that TQM has significant positive effects on both employee performance and operational performance. Furthermore, higher employee performance directly improves operational performance across effectiveness, efficiency, and productivity. These findings underscore the strategic role of employees as valuable organizational assets in enhancing the overall performance of conventional commercial banks.

Based on these findings, bank management should strengthen TQM implementation by emphasizing leadership commitment, customer focus, employee training and involvement, and continuous improvement initiatives. Particular attention should be given to developing employee capabilities and motivation, as improvements in employee performance translate into better operational outcomes. Future research is encouraged to investigate additional organizational factors that may strengthen the relationship between TQM and quality performance, particularly because the present study found no significant direct effect of TQM on quality performance.

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