IAIC Transactions on Sustainable Digital Innovation (ITSDI)
Vol. 7, No. 2, April 2026, pp. 173−187
E-ISSN: 2715-0461 P-ISSN: 2686-6285, DOI:10.34306

Leadership, Workload, and Culture: Impact on Organizational Performance through Service Quality

Marvel[1*], Oscar Jayanagara[2]
[1]Faculty of Medicine, Pelita Harapan University, Indonesia
[2]Faculty of Economics and Business, Pelita Harapan University, Indonesia
[1]marvelchuaa@gmail.com, [2]oscar.fe@uph.edu
***Corresponding Author**

Article Info

Article history:

Submission February 20, 2026
Revised March 16, 2026
Accepted March 27, 2026
Published April 14, 2026

Keywords:

Leadership Styles
Workload
Organizational Culture
Service Quality
Organizational Performance

ABSTRACT

Organizational performance in the healthcare sector is a multidimensional construct that includes financial outcomes, internal processes, learning and growth, and customer-related indicators. **This study examines** the effects of leadership style, workload, and organizational culture on hospital organizational performance, with service quality as a mediating variable. A quantitative cross-sectional design was employed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. **Data were collected from** nurses and patients at a leading private hospital in Tangerang, Indonesia, during November–December 2024. **The analysis** was conducted using valid responses from nurses and patients, supported by secondary data obtained from financial reports, press releases, and quarterly company presentations. **The findings** reveal that organizational culture has a significant positive effect on service quality and contributes to selected dimensions of organizational performance, particularly financial performance and learning and growth, through service quality mediation. In contrast, leadership style and workload do not show significant effects on service quality, indicating that hospital service quality may be more strongly shaped by shared organizational values, standardized procedures, and institutional culture than by individual leadership practices or perceived workload. Several performance dimensions, including internal process and customer-related outcomes, also show weak explanatory power, suggesting that these outcomes may be influenced by other factors beyond the proposed model, such as clinical interaction, patient expectations, operational efficiency, and external service conditions. **This study contributes** to organizational behavior and healthcare management literature by demonstrating the central role of organizational culture and service quality in strengthening hospital performance. **The findings** offer practical implications for hospital managers to develop a strong, structured, and service-oriented culture to improve healthcare delivery and organizational sustainability.

DOI: https://doi.org/10.34306/itsdi.v7i2.729

1. INTRODUCTION

Organizations are expected to create a work environment that enables employees to perform effectively, coordinate their responsibilities, and contribute to sustainable organizational performance. In the health-

care sector, this responsibility becomes more critical because organizational performance is closely related not only to financial outcomes, but also to service quality, patient safety, patient satisfaction, operational efficiency, and employee well-being [1]. Poor organizational performance in hospitals may affect service delivery, reduce patient trust, increase operational inefficiency, and threaten long-term institutional sustainability [2].

Hospital organizational performance is a multidimensional concept that cannot be evaluated only through financial indicators. Financial performance, such as profitability and cost efficiency, remains important for organizational sustainability. However, non-financial indicators, including internal processes, learning and growth, service quality, and customer-related outcomes, are also essential in determining the effectiveness of healthcare organizations. Therefore, a multidimensional performance measurement approach is required to provide a more comprehensive understanding of hospital performance [3, 4].

One widely used framework for evaluating organizational performance is the Balanced Scorecard. The Balanced Scorecard allows organizations to assess performance through four main perspectives: financial, internal process, learning and growth, and customer. In the hospital context, this framework is useful because it combines financial and non-financial indicators, enabling managers to evaluate whether the organization is achieving both operational sustainability and service excellence. By applying the Balanced Scorecard, hospitals can identify not only financial achievements, but also internal strengths, employee development, and patient-related outcomes.

Although performance measurement frameworks are important, hospital performance is also strongly influenced by internal organizational factors. Leadership style, workload, and organizational culture are among the key factors that may affect service quality and organizational performance. Leadership style can shape employee motivation, communication, decision-making, and work coordination [5]. Workload can influence employee fatigue, stress, service consistency, and the ability to provide safe and responsive care. Meanwhile, organizational culture reflects shared values, norms, and work practices that guide how employees behave and deliver services. These factors are particularly important in hospitals, where service quality depends on coordinated teamwork, professional discipline, and patient-oriented behavior.

Service quality plays a central role in connecting internal organizational factors with hospital performance. In healthcare, service quality is not only related to patient satisfaction, but also to reliability, responsiveness, assurance, empathy, and the overall patient experience. High service quality may improve patient loyalty, operational efficiency, employee satisfaction, and financial sustainability. Therefore, service quality can function as a mediating variable that explains how leadership style, workload, and organizational culture influence different dimensions of organizational performance [6, 7].

Previous studies have examined the relationship between leadership style, workload, organizational culture, service quality, and organizational performance. However, many of these studies have analyzed these variables separately or focused only on limited performance indicators. Some studies emphasize the role of leadership in improving service quality and hospital performance, while others highlight the influence of workload on care quality or the importance of organizational culture in shaping service behavior. Nevertheless, limited research has integrated leadership style, workload, and organizational culture into one structural model with service quality as a mediating variable and organizational performance measured through the Balanced Scorecard dimensions [8, 9].

This research gap is important because hospital performance in developing countries may be influenced by different contextual conditions, such as resource limitations, patient expectations, staffing patterns, organizational systems, and institutional culture. In private hospitals, service quality and organizational performance are also affected by competition, operational efficiency, and the need to maintain patient trust [10]. Therefore, examining these relationships in the context of a private hospital in Indonesia provides valuable empirical evidence for understanding how internal organizational factors contribute to healthcare performance.

This study aims to analyze the effects of leadership style, workload, and organizational culture on organizational performance through service quality in a private hospital in Indonesia [11]. Specifically, this study examines organizational performance using the Balanced Scorecard perspectives, including financial, internal process, learning and growth, and customer dimensions. By doing so, this study contributes to the literature on organizational behavior and healthcare management by clarifying the role of service quality as a mediator and identifying which internal organizational factors have the strongest influence on hospital performance. Practically, the findings are expected to help hospital managers develop strategies to strengthen organizational culture, improve service quality, and enhance sustainable organizational performance.

2. HYPOTHESIS FORMULATION

2.1. Leadership Style and Service Quality

Leadership style is an important factor in shaping employee behavior, motivation, communication, and service delivery in healthcare organizations. In hospitals, leaders are responsible for creating clear direction, encouraging teamwork, supporting employees, and ensuring that service standards are consistently followed. Effective leadership can help nurses and healthcare staff work with greater confidence, commitment, and responsibility, which may improve the quality of services delivered to patients [12, 13].

Previous studies have shown that leadership plays an important role in healthcare service quality. Effective leadership has been associated with better patient outcomes, improved work environments, higher job satisfaction, and reduced adverse events [14, 15]. Transformational leadership, for example, can encourage employee motivation and commitment, while transactional leadership can support service consistency through clear rules, rewards, and performance monitoring. Therefore, leadership style is expected to positively influence service quality.

H1: Leadership style has a positive influence on service quality.

2.2. Workload and Service Quality

Workload is one of the main challenges faced by nurses and healthcare workers. High workload may lead to fatigue, stress, burnout, emotional exhaustion, and reduced concentration [16]. In the healthcare sector, these conditions can directly affect the ability of nurses to provide safe, responsive, and patient-centered care. When workload is too high, employees may have less time and energy to communicate with patients, respond to patient needs, and maintain service [17, 18]. However, a balanced workload can support better service quality because nurses have sufficient time, focus, and physical capacity to perform their duties properly. Previous studies have shown that excessive workload may reduce care quality and increase the risk of service errors. Therefore, workload is expected to have a negative influence on service quality [19].

H2: Workload has a negative influence on service quality.

2.3. Organizational Culture and Service Quality

Organizational culture refers to the shared values, beliefs, norms, and practices that guide employee behavior within an organization. In hospitals, organizational culture plays an important role in shaping how employees interact with patients, follow procedures, collaborate with colleagues, and respond to service challenges [20, 21]. A strong and supportive culture can create consistency in service delivery and encourage employees to prioritize patient safety, service excellence, and professional responsibility. The Competing Values Framework explains that organizational culture may consist of several dimensions, including clan, adhocracy, market, and hierarchy culture. In healthcare organizations, these cultural dimensions can influence service quality in different ways. For example, hierarchy culture may support standardized procedures and operational control, while market culture may encourage performance orientation and service competitiveness. Previous studies have shown that organizational culture can strengthen service quality by creating shared expectations and consistent service behavior. Therefore, organizational culture is expected to positively influence service quality [22, 23].

H3: Organizational culture has a positive influence on service quality.

2.4. Service Quality and Organizational Performance

Service quality is a key indicator of organizational performance in healthcare. In hospitals, service quality is closely related to patient satisfaction, patient loyalty, patient safety, employee motivation, and operational effectiveness. High service quality can improve the patient experience, strengthen trust in the hospital, and support long-term organizational sustainability. From the Balanced Scorecard perspective, service quality may contribute not only to customer-related outcomes, but also to financial performance, internal processes, and learning and growth.

The SERVQUAL framework explains service quality through dimensions such as tangibility, reliability, responsiveness, assurance, and empathy. These dimensions are relevant in hospitals because patients assess service quality based on physical facilities, service reliability, staff responsiveness, professional assurance, and caring behavior. Previous studies have shown that better service quality can improve hospital performance by increasing patient satisfaction, supporting employee job satisfaction, and strengthening financial outcomes [24, 25]. Therefore, service quality is expected to positively influence organizational performance.

H4: Service quality has a positive influence on organizational performance.

2.5. Leadership Style and Organizational Performance

Leadership style can also directly influence organizational performance. Leaders affect how employees understand organizational goals, perform their responsibilities, adapt to change, and participate in improvement efforts. In hospitals, leadership is important because healthcare services require strong coordination, discipline, quick decision-making, and continuous quality improvement. Effective leadership can improve employee engagement, service consistency, and organizational efficiency [26].

Previous studies have found that transformational and transactional leadership styles can contribute to better employee and organizational performance. Transformational leadership may improve motivation, trust, empowerment, and organizational citizenship behavior, while transactional leadership may improve performance through clear expectations, rewards, and corrective actions. Therefore, leadership style is expected to positively influence organizational performance [27].

H5: Leadership style has a positive influence on organizational performance.

2.6. Organizational Culture and Organizational Performance

Organizational culture is one of the internal resources that can shape organizational performance. A strong organizational culture can guide employee behavior, improve coordination, support strategic alignment, and create consistency in daily operations. In hospitals, culture is especially important because healthcare performance depends on teamwork, professional discipline, service standards, and patient-oriented values.

From the Balanced Scorecard perspective, organizational culture may affect multiple performance dimensions. A culture that emphasizes efficiency and control may improve internal processes, while a culture that supports learning and collaboration may improve employee development and job satisfaction. A market-oriented culture may also strengthen competitiveness and financial performance. Previous studies have shown that organizational culture can influence hospital performance, although the strength and direction of its effect may vary depending on the dominant culture type and organizational context [28]. Therefore, organizational culture is expected to positively influence organizational performance.

H6: Organizational culture has a positive influence on organizational performance.

2.7. Service Quality as a Mediator between Leadership Style and Organizational Performance

Leadership style may influence organizational performance not only directly, but also indirectly through service quality [29]. Effective leaders can improve service quality by motivating employees, clarifying service standards, supporting teamwork, and encouraging patient-centered behavior. When service quality improves, hospitals may experience better patient satisfaction, stronger employee commitment, improved operational efficiency, and better organizational outcomes.

In this relationship, service quality acts as a mechanism that translates leadership practices into organizational performance. Leaders may create the conditions for better service delivery, while service quality becomes the visible outcome that affects hospital performance. Previous studies have suggested that leadership can improve service quality and that service quality can enhance organizational performance [30]. Therefore, service quality is expected to mediate the relationship between leadership style and organizational performance.

H7: Leadership style positively influences organizational performance through the mediation of service quality.

2.8. Service Quality as a Mediator between Workload and Organizational Performance

Workload may also influence organizational performance indirectly through service quality. Excessive workload can reduce employees' physical energy, emotional stability, attention to detail, and ability to provide responsive care. When service quality decreases, hospital performance may also decline because patients may experience longer waiting times, lower satisfaction, and reduced trust in hospital services.

On the other hand, properly managed workload can support service quality by allowing nurses and healthcare staff to perform their duties more effectively. In this case, service quality functions as a bridge between workload and organizational performance. Workload affects how services are delivered, and service quality subsequently influences performance outcomes [31]. Therefore, workload is expected to negatively influence organizational performance through the mediation of service quality.

H8: Workload negatively influences organizational performance through the mediation of service quality.

2.9. Service Quality as a Mediator between Organizational Culture and Organizational Performance

Organizational culture can influence organizational performance through service quality. A strong organizational culture creates shared values, service norms, and behavioral expectations that guide employees in delivering care. In hospitals, culture can encourage discipline, responsiveness, teamwork, empathy, and compliance with service standards. These cultural characteristics can improve service quality and subsequently enhance organizational performance.

Service quality serves as a pathway through which organizational culture affects performance outcomes. A culture that supports patient-centered service and operational consistency may improve patient satisfaction, employee engagement, and financial sustainability. Previous studies have found that organizational culture improves service quality and that service quality contributes to organizational performance [32]. Therefore, service quality is expected to mediate the relationship between organizational culture and organizational performance.

H9: Organizational culture positively influences organizational performance through the mediation of service quality.

3. METHODS

This study was conducted in one of Indonesia's largest private hospitals, focusing on one of its prominent branches located in Tangerang. This research employed a quantitative cross-sectional design to examine the effects of leadership style, workload, and organizational culture on organizational performance, with service quality as a mediating variable. Organizational performance was measured using the Balanced Scorecard dimensions, including financial, internal process, learning and growth, and customer perspectives.

3.1. Sampling and Data Collection

Data were collected from nurses and patients at the selected private hospital during November and December 2024. This study used a non-probability sampling method with a purposive sampling technique. Purposive sampling was applied because the study required respondents who had direct experience with hospital service delivery. Nurses were selected because they are directly involved in healthcare service processes, while patients were selected because they are the main recipients of hospital services [33].

Initially, 164 nurses participated in the survey. However, 18 respondents were excluded because they had worked for less than one year and were considered to have limited exposure to the hospital's organizational culture, leadership practices, and workload conditions. Therefore, 146 valid nurse responses were used for further analysis. In addition, 164 patient responses were collected to assess service quality and customer-related performance indicators.

The questionnaire was distributed online and consisted of 45 measurement items, excluding demographic questions. The items were adapted from established instruments, including the Multifactor Leadership Questionnaire (MLQ), Organizational Culture Assessment Instrument (OCAI), NASA Task Load Index (NASA-TLX), and job satisfaction items for the learning and growth dimension of organizational performance. Responses were measured using a five-point Likert scale, ranging from 1, which indicates strongly disagree, to 5, which indicates strongly agree. Secondary data were also obtained from financial reports, press releases, and quarterly company presentations to support the measurement of organizational performance.

Although purposive sampling was appropriate for selecting respondents relevant to the research objectives, this technique may create selection bias because respondents were not randomly selected. Therefore, the findings should be interpreted within the context of the selected private hospital and may not be fully generalizable to other healthcare institutions.

3.2. Statistical Analysis

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS version 4.1.0.9. The minimum sample size was determined using G*Power 3.1.9.7, with a medium effect size, statistical power of 0.95, and four predictors, resulting in a minimum requirement of 129 respondents [34]. Therefore, the final valid nurse sample of 146 respondents met the minimum requirement for PLS-SEM analysis.

The measurement model was evaluated using indicator loadings, Cronbach's alpha, composite reliability, Average Variance Extracted (AVE), and the Fornell-Larcker criterion. The structural model was assessed

using path coefficients, t-statistics, p-values, R-square, f-square, and Q-square values. Hypotheses were considered significant when the t-statistic exceeded 1.964 and the p-value was below 0.05.

4. DATA ANALYSIS

4.1. Descriptive Statistics

A total of 164 nurses initially participated in this study. However, 18 respondents were excluded because they had worked for less than one year, leaving 146 valid nurse responses for further analysis. The demographic profile shows that most nurse respondents were female, representing 67.7% of the total sample. Most respondents were aged 20–29 years, accounting for 62.2%, followed by those aged 30–39 years at 33.5%. In terms of education, most nurses held a bachelor's degree, representing 76.2%, while 23.8% held a diploma. Regarding work experience, the largest group had 6–10 years of experience, representing 37.8%, followed by 1–5 years of experience at 29.9%. These characteristics indicate that the respondents had sufficient professional experience and diverse work backgrounds to provide relevant responses regarding leadership, workload, organizational culture, and service quality shows as Table 1.

Table 1. Nurse Demographic

Variables	Sample (n)	Percentage (%)
Gender		
Male	53	32.3
Female	111	67.7
Age		
20–29 years	102	62.2
30–39 years	55	33.5
40–49 years	7	4.3
>50 years	0	0.0
Qualification		
Bachelor's Degree	125	76.2
Diploma	39	23.8
Experience		
<1 year	18	11.0
1–5 years	49	29.9
6–10 years	62	37.8
>10 years	35	21.3
Workplace Unit		
Outpatient	35	21.3
Inpatient	51	31.1
Emergency Services	25	15.3
Operating Theatre	19	11.6
Medical Rehabilitation	4	2.4
Intensive Care	24	14.6
Maternity	6	3.7
Total	164	100.0

A total of 164 patients also participated in this study. The majority of patient respondents were female, representing 54.9%, while male respondents accounted for 45.1%. Most patients were in the working-age group of 18–64 years, representing 72.6%. Regarding visit frequency, 49.4% of patients had visited the hospital two to five times, while 36.0% had visited more than five times. This indicates that most patient respondents had sufficient experience with the hospital services. The main purpose of visit was outpatient care, representing 42.7%, followed by inpatient care at 26.2% and emergency services at 18.9%. These patient characteristics support the relevance of their responses in evaluating service quality and customer-related performance shown in Table 2.

Table 2. Patient Demographic

Variables	Sample (n)	Percentage (%)
Gender		
Male	74	45.1
Female	90	54.9
Age		
<18 years	20	12.2
18–64 years	119	72.6
>64 years	25	15.2
Frequency of Visit		
First Time	24	14.6
2–5 times	81	49.4
>5 times	59	36.0
Purpose of Visit		
Outpatient	70	42.7
Inpatient	43	26.2
Emergency Services	31	18.9
Radiology	9	5.5
Medical Rehabilitation	11	6.7
Total	164	100.0

4.2. PLS-SEM Analysis Results

This study used a disjoint two-stage approach to examine the relationships among leadership style, workload, organizational culture, service quality, and organizational performance [35]. Organizational performance was analyzed based on the Balanced Scorecard dimensions, consisting of Financial (FI), Internal Process (IP), Learning and Growth (LG), and Customer (CS). This approach allowed the study to identify how each organizational performance dimension was influenced by the proposed variables.

4.3. Convergent Validity and Reliability

The convergent validity results show that all constructs met the minimum validity criteria. The factor loading values ranged from 0.565 to 1.000, while the Average Variance Extracted (AVE) values were above 0.50 for all variables. These results indicate that the indicators used in this study were able to explain their respective constructs adequately in Table 3 below.

Table 3. Convergent Validity

Variables	Number of Items	Factor Loading Intervals	AVE
LS	2	0.963–0.965	0.929
WL	6	0.767–0.908	0.744
OC	6	0.774–0.845	0.726
SQ	5	0.773–0.902	0.735
FI	1	1.000	1.000
IP	1	1.000	1.000
LG	8	0.607–0.850	0.599
CS	5	0.565–0.826	0.522

The measurement model analysis, as presented in Table 4, demonstrates that all constructs have met the required reliability and validity criteria for PLS-SEM, with Cronbach's Alpha and Composite Reliability (P_c) values for all variables exceeding the 0.70 threshold, thereby indicating robust internal consistency. Furthermore, convergent validity is firmly established as the Average Variance Extracted (AVE) for every construct surpasses 0.50, confirming that the latent variables account for more than half of the variance in their respective indicators. Notably, the Financial and Internal Process constructs achieved perfect reliability scores of 1.000 due to the implementation of single-item measures; consequently, these results provide a statistically sound and credible foundation for proceeding with the evaluation of the structural model and the testing of the proposed

research hypotheses. Overall, these findings confirm that the measurement instrument is both reliable and valid, ensuring that the subsequent path analysis is based on highly accurate and consistent data.

Table 4. Cronbach's Alpha and Composite Reliability

Variables	Cronbach's Alpha	Composite Reliability
LS	0.924	0.963
WL	0.931	0.945
OC	0.924	0.941
SQ	0.909	0.932
FI	1.000	1.000
IP	1.000	1.000
LG	0.903	0.922
CS	0.841	0.866

4.4. Discriminant Validity

The discriminant validity test was assessed using the Fornell-Larcker criterion. The results show in Table 5 that the square root of AVE for each construct was higher than its correlation with other constructs. This indicates that each variable in the model had sufficient uniqueness and did not strongly overlap with other variables. Therefore, the constructs used in this study met the discriminant validity requirement.

Table 5. Discriminant Validity

Variables	LS	WL	OC	SQ	FI	IP	LG	CS
LS	0.964							
WL	0.133	0.862						
OC	0.617	0.350	0.852					
SQ	0.525	0.249	0.748	0.857				
FI	0.155	0.012	0.029	0.142	1.000			
IP	0.047	0.014	0.139	0.054	0.006	1.000		
LG	0.631	0.235	0.769	0.530	0.067	0.061	0.774	
CS	-0.034	0.134	0.037	0.016	-0.029	0.013	-0.055	0.722

4.5. Coefficient of Determination

The R-square results show in Table 6 that leadership style, workload, and organizational culture explained 56.5% of the variation in service quality, indicating moderate explanatory power. The model also explained 78.9% of the variation in the Learning and Growth dimension, indicating strong explanatory power. This suggests that the proposed model is more effective in explaining internal employee-related outcomes, especially job satisfaction and organizational learning.

However, the Financial, Internal Process, and Customer dimensions showed low R-square values, namely 0.058, 0.028, and 0.022. These results indicate weak explanatory power for these dimensions. This may occur because financial performance, internal process indicators, and customer outcomes are likely influenced by other factors beyond the model, such as hospital pricing strategy, operational policies, patient expectations, clinical outcomes, waiting time, and external market conditions. Therefore, these low R-square values should be interpreted as an important limitation of the model.

Table 6. R-square

Variables	R-square	Results
Service Quality (SQ)	0.565	Moderate
Financial (FI)	0.058	Weak
Internal Process (IP)	0.028	Weak
Learning and Growth (LG)	0.789	Strong
Customer (CS)	0.022	Weak

4.6. Effect Size

The f-square results show that Organizational Culture had a large effect on Service Quality, with an f-square value of 0.593. Service Quality also had a large effect on Learning and Growth, with an f-square value of 0.749. These findings indicate that organizational culture plays an important role in shaping service quality, while service quality strongly contributes to employee-related organizational performance [36, 37].

Other relationships showed small or no effect sizes. Leadership Style had a small effect on Learning and Growth, while Organizational Culture had small effects on Financial, Internal Process, and Learning and Growth [38]. Workload showed no meaningful effect on most variables. These findings in Table 7 suggest that not all internal organizational factors contribute equally to organizational performance, and that organizational culture and service quality are the most influential constructs in the model.

Table 7. f-square

Path	f-square	Results
LS → SQ	0.015	No effect size
LS → FI	0.026	Small effect size
LS → IP	0.002	No effect size
LS → LG	0.102	Small effect size
LS → CS	0.003	No effect size
WL → SQ	0.000	No effect size
WL → FI	0.001	No effect size
WL → IP	0.002	No effect size
WL → LG	0.001	No effect size
WL → CS	0.015	No effect size
OC → SQ	0.593	Large effect size
OC → FI	0.030	Small effect size
OC → IP	0.026	Small effect size
OC → LG	0.068	Small effect size
OC → CS	0.001	No effect size
SQ → FI	0.028	Small effect size
SQ → IP	0.005	No effect size
SQ → LG	0.749	Large effect size
SQ → CS	0.000	No effect size

4.7. Predictive Relevance

The Q-square results show that Service Quality and Learning and Growth had predictive relevance, with Q-square values of 0.403 and 0.454, respectively. This indicates that the model has acceptable predictive capability for these variables. However, Financial showed minimal predictive relevance, while Internal Process and Customer had negative Q-square values. These results indicate that the model has limited ability to predict these dimensions.

Table 8. Q-square

Variables	Q-square Predict
SQ	0.403
FI	0.012
IP	-0.043
LG	0.454
CS	-0.026

The weak predictive relevance of Internal Process and Customer suggests that these outcomes may require additional predictors shows in Table 8. For example, internal process performance may be influenced by operational efficiency, bed management, technology systems, and clinical workflow. Meanwhile, customer-related performance may be influenced by patient expectations, communication quality, waiting time, perceived treatment outcomes, and overall patient experience [39].

5. RESULTS AND DISCUSSION

5.1. Influence of Leadership Style on Service Quality

Descriptive analysis revealed that transformational and transactional leadership had nearly identical means (3.850 and 3.800), indicating both styles are almost equally perceived in the organization. However, the research found that leadership style had no significant effect on service quality (r = 0.102, p = 0.397), with T-statistics of 0.847 (<1.964). This contrasts with previous studies, which found that leadership styles particularly transformational leadership have a significant impact on service quality in healthcare settings. For instance, a research found that flexible leadership enhances job satisfaction and service quality through employee recognition and engagement [40, 41]. The lack of significance in this study may stem from the specific context of the hospital, where institutionalized procedures and organizational culture might outweigh the influence of individual leadership styles. The non-significant relationship between leadership style and service quality in this study suggests that while leadership is crucial for overall organizational functioning, other factors such as standardized procedures, organizational culture, and support systems may play a more dominant role in driving service quality in hospitals [42]. Therefore, further studies should explore the complex interplay between leadership styles and institutional factors in healthcare organizations.

5.2. Influence of Workload on Service Quality

The research found that workload had no significant effect on service quality (r = -0.005, p = 0.936), with T-statistics of 0.080 (<1.964). This result contrasts with earlier studies that identified a strong relationship between excessive workload and reduced service quality. For instance, Kuntz et al. (2011) emphasized that both high and low workload could affect decision-making and service delivery in healthcare settings. Despite the demanding nature of the work, respondents in this study appeared to manage their workload effectively, possibly due to organizational support, well-defined work processes, and teamwork. However, this finding does not negate the broader literature that links workload with service quality. It is possible that workload, as measured in this study, did not fully capture the emotional, psychological, and cognitive demands on healthcare workers. Future research could consider other workload dimensions, such as emotional labor or decision-making complexity, and explore how they influence service quality.

5.3. Influence of Organizational Culture on Service Quality

The study found that organizational culture significantly and positively affected service quality (r = 0.687, p = 0.000), with a T-statistic of 6.029 (>1.964), supporting Hypothesis 3. The analysis indicates that the hospital's culture is predominantly characterized by the Market and Hierarchy dimensions, as described by the Competing Values Framework (Cameron & Quinn, 2011). The Market culture focuses on external competition and performance, while the Hierarchy culture emphasizes structure and efficiency. These cultural dimensions align with the hospital's focus on operational efficiency and competitive success. This finding supports the argument that organizational culture plays a central role in shaping service delivery and performance. A strong culture reinforces shared values, norms, and behaviors that guide employees in providing high-quality services. These results are consistent with previous research by Zam and Nongkeng (2011), which found that organizational culture significantly improves service quality. Therefore, fostering a culture that prioritizes efficiency, service excellence, and collaboration is essential for improving service quality in healthcare settings.

5.4. Influence of Service Quality on Organizational Performance

Service quality had a significant positive effect on Financial Performance (r = 0.245, p = 0.026) with a T-statistic of 2.238 (>1.964), reflecting improvements in financial health, profitability, and organizational efficiency. It also significantly influenced Learning and Growth (r = 0.604, p = 0.000) with a T-statistic of 8.722 (>1.964), where Job Satisfaction represents that dimension. However, Service Quality had no significant impact on Internal Process (r = -0.105, p = 0.438) with a T-statistic of 0.778 (<1.964), as measured by Bed Occupancy Ratio and Average Length of Stay, nor did it significantly affect Customer Satisfaction (r = -0.012, p = 0.937) with a T-statistic of 0.079 (<1.964). These results indicate that while service quality contributes to financial outcomes and employee satisfaction, it may not fully explain other dimensions of organizational performance, such as internal processes or customer outcomes. In particular, the weak results for customer-related performance suggest that patient satisfaction may be influenced more by direct clinical interactions and expectations rather than organizational-level factors like service quality. These findings align with Raju and Lonial (2002), who found that service quality is crucial for financial performance, and Abdullah et al. (2021), who demonstrated the positive impact of internal service quality on employee satisfaction [43].

5.5. Influence of Leadership Style on Organizational Performance

The analysis revealed that Leadership Styles significantly impacted the Financial and Learning and Growth dimensions of Organizational Performance, with a positive effect on financial indicators (r = 0.200, p = 0.040) and Learning and Growth (r = 0.190, p = 0.002). However, no significant impact was observed on the Internal Process (r = -0.058, p = 0.598) or Customer dimensions (r = -0.073, p = 0.702). These findings partially support the hypothesis that Leadership Styles positively influence Organizational Performance [44]. Previous studies, such as those by Fahlevi (2012) and Mosadegh Rad (2006), have shown that leadership can have a significant impact on organizational performance. In particular, leadership practices that focus on employee engagement, trust, and empowerment can improve employee satisfaction and foster organizational development. These findings emphasize the importance of leadership in driving specific performance dimensions, particularly those tied to staff engagement and financial outcomes.

5.6. Influence of Organizational Culture on Organizational Performance

Organizational Culture had a significant negative impact on the Financial dimension (r = -0.286, p = 0.018) and a significant positive impact on Learning and Growth (r = 0.204, p = 0.012). However, no significant effect was found on the Internal Process (r = 0.269, p = 0.066) or Customer dimension (r = 0.046, p = 0.829). These findings suggest that while organizational culture positively influences employee-related performance outcomes, its effect on financial performance may be more complex. In contrast to these results, Acar et al. (2014) found that Hierarchy and Market cultures positively influenced financial performance in Turkish hospitals. These findings highlight the need for hospitals to cultivate a culture that supports both efficiency and financial stability. In particular, hospitals may benefit from a culture that prioritizes structure, efficiency, and performance (Hierarchy culture) while also fostering a competitive and results-oriented mindset (Market culture).

5.7. Mediation Effects of Service Quality

The mediation analysis revealed that Service Quality does not mediate the relationship between Leadership Styles or Workload and any dimension of Organizational Performance (Financial, Internal Process, Learning and Growth, Customer), as all T-statistics were below 1.964 and p-values exceeded 0.05. Thus, Hypotheses H7 and H8 were not supported. However, Service Quality significantly mediated the relationship between Organizational Culture and Organizational Performance in the Financial (r = 0.168, p = 0.038, T-statistic = 2.082) and Learning and Growth dimensions (r = 0.414, p = 0.000, T-statistic = 4.133). These findings suggest that organizational culture influences performance outcomes through service quality, particularly in the financial and employee satisfaction dimensions. This contrasts with previous research, such as Hastuti and Aini (2024), which found that nurse workload directly affects service quality and organizational performance. However, this study suggests that in certain contexts, service quality can mediate the relationship between organizational culture and organizational performance.

5.8. Discussion of R-Square Results

The R-square results indicate that the proposed model explains 56.5% of the variation in Service Quality, which is considered a moderate explanatory power. This suggests that the model is capable of explaining a substantial portion of the variation in service quality, but other factors such as patient expectations, external market conditions, and clinical outcomes may also contribute significantly. The Learning and Growth dimension had a strong R-square value of 0.789, suggesting that the model is effective at explaining employee-related performance outcomes. However, the weak R-square values for Financial, Internal Process, and Customer dimensions indicate that the model is not sufficient to explain these dimensions comprehensively. This suggests that additional variables, such as hospital pricing strategies, clinical care protocols, patient expectations, and market competition, may play a larger role in influencing these outcomes. Future studies should consider including more predictors, such as operational efficiency, hospital management practices, and patient demographics, to enhance the explanatory power of the model.

5.9. Implications for Practice

This study provides several practical implications for hospital managers and policymakers. First, it highlights the importance of organizational culture in driving service quality and improving organizational performance. Hospitals should prioritize fostering a strong, supportive culture that aligns with service excellence, efficiency, and patient-centered care. Second, leadership styles can have a positive impact on financial performance and employee satisfaction. Therefore, hospitals should invest in leadership development programs

that focus on transformational leadership, employee engagement, and organizational growth. Finally, workload management should be continuously monitored to ensure that healthcare workers are not overwhelmed, but also have the necessary resources to perform their duties effectively. Managing workload and enhancing service quality will ultimately contribute to better patient outcomes and operational efficiency.

6. MANAGERIAL IMPLICATIONS

The findings of this study can be utilized by managers to enhance organizational performance. While aspects that are already functioning well should be maintained, areas requiring improvement must be addressed to achieve optimal performance in the future. Service quality stands out as a key strength in supporting organizational performance, necessitating consistent standards through employee training, regular evaluations, and the adoption of best practices to sustain its positive impact. Organizational culture must also be evaluated to reinforce values that promote efficiency and sound financial decision-making while minimizing hindering factors. Strengthening organizational culture should be a priority by fostering teamwork, transparency, and employee support through training, team development, and consistent value implementation.

7. CONCLUSION

While leadership styles and workload showed no significant effects on service quality or organizational performance, organizational culture proved to be a significant driver of service quality and the Learning and Growth dimension of performance. These findings underscore the critical role of cultivating an organizational culture that prioritizes efficiency, structured processes, and a collaborative work environment. In particular, fostering a strong culture that supports operational effectiveness and service excellence can enhance both employee satisfaction and overall organizational performance.

This study has several limitations. It was conducted in a single private hospital using a cross-sectional design, which limits causal inference and the generalizability of the findings. The findings may not fully apply to other healthcare settings, particularly those with different organizational structures, patient demographics, or cultural contexts. Future research should aim to replicate these findings in different healthcare environments, such as public hospitals or other private institutions, to increase the external validity of the results.

Additionally, multigroup analyses by demographic characteristics, such as age, job title, and work unit, were not performed in this study. These analyses could provide further insights into how different groups within the hospital experience and contribute to service quality and organizational performance. Future research should address these gaps and explore the impact of demographic variables and other contextual factors on the relationship between leadership, workload, organizational culture, and performance outcomes in healthcare settings.

8. DECLARATIONS

8.1. About Authors

Marvel (MM) -

Oscar Jayanagara (OJ) https://orcid.org/0009-0007-8732-1980

8.2. Author Contributions

Conceptualization: MM; Methodology: OJ; Software: MM; Validation: OJ; Formal Analysis: MM and OJ; Investigation: MM and OJ; Resources: OJ; Data Curation: MM and OJ; Writing Original Draft Preparation: MM and OJ; Writing Review and Editing: OJ; Visualization: MM; All authors, MM and OJ, have read and agreed to the published version of the manuscript.

8.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

8.4. Funding

The authors confirm that no financial assistance was provided for the research, writing, or publication of this article.

8.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

REFERENCES

[1] N. P. L. Santoso, R. Nurmala, and U. Rahardja, "Corporate leadership in the digital business era and its impact on economic development across global markets," *IAIC Transactions on Sustainable Digital Innovation (ITSDI)*, vol. 6, no. 2, pp. 188–195, 2025.

[2] M. Chmielewska, J. Stokwiszewski, J. Markowska, and T. Hermanowski, "Evaluating organizational performance of public hospitals using the mckinsey 7-s framework," *BMC Health Services Research*, vol. 22, no. 1, p. 7, 2022.

[3] E. Nafari and B. Rezaei, "Relationship between human resources strategies and organizational performance based on the balanced scorecard in a public hospital in iran: a cross-sectional study," *BMC Health Services Research*, vol. 22, no. 1, pp. 1–8, 2022.

[4] S. Kosasi, I. D. A. E. Yuliani, and U. Rahardja, "Boosting e-service quality of online product businesses through it leadership," in *2022 International Conference on Science and Technology (ICOSTECH)*. IEEE, February 2022, pp. 1–10.

[5] A. Anisa and Y. Tine, "Effect of compensation, workload, leadership on employee performance and implications on organizational performance," *Journal Research of Social Science, Economics & Management*, vol. 1, no. 12, 2022.

[6] A. Prenestini, S. Calciolari, and A. Rota, "Keep-or-drop multidimensional control systems in professional organisations: evidence on the use of the balanced scorecard in healthcare," *Journal of Health Organization and Management*, vol. 38, no. 9, pp. 157–174, 2024, internet.

[7] U. Rahardja, S. Wijono, T. Wahyono, I. Sembiring, and I. R. Widiasari, "Effective ddos detection through innovative algorithmic approaches in machine learning," in *2024 3rd International Conference on Creative Communication and Innovative Technology (ICCIT)*. IEEE, August 2024, pp. 1–7.

[8] R. Daga and A. Samad, "Analysis of the influence of leadership style, workload and work stress on employee performance: Empirical study from the matsc branch of aviation navigation service provider institution," *Golden Ratio of Human Resource Management*, vol. 5, no. 2, pp. 383–405, 2025.

[9] M. Marnoto, G. Dwiyono, and N. A. Ruyani, "The influence of leadership style and workload on employee performance with job satisfaction as an intervening variable," *Jurnal Education and Development*, vol. 13, no. 1, pp. 687–691, 2025.

[10] L. P. Dewanti, L. Sitoayu, and A. Idarto, "Digital tele-counseling for sustainable maternal health services in indonesia focus on telelactation," *IAIC Transactions on Sustainable Digital Innovation (ITSDI)*, vol. 6, no. 1, pp. 10–20, 2024.

[11] R. Regen, B. Dominanto, and J. Jamhari, "The effect of work motivation, service quality and employee workload on employee performance," *Jurnal Ekobistek*, vol. 13, no. 4, pp. 234–240, 2024.

[12] S. Elkomy, Z. Murad, and V. Veleanu, "Does leadership matter for healthcare service quality? evidence from nhs england," *International Public Management Journal*, vol. 26, no. 2, pp. 147–174, 2023.

[13] A. Simanjuntak, A. Sutarman, S. A. Anjani, and A. Nuche, "Integrating artificial intelligence in e-learning for organizational well-being through orange technology mapping," *IAIC Transactions on Sustainable Digital Innovation (ITSDI)*, vol. 7, no. 1, pp. 13–26, 2025.

[14] M. A. Khasanah, O. Ishak, W. A. Putri, B. S. Novitri, and N. Yusuf, "The influence of leadership style, workload, compensation and organizational culture on performance of auditors in national private company," *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi)*, vol. 9, no. 5, pp. 2164–2168, 2023.

[15] A. Gunawan, W. Hasyim, M. Putih, T. W. Wirjawan, I. A. Gopar, and S. Stephanie, "A comprehensive bibliometric study of digital leadership influence on technopreneurial success," *Aptisi Transactions on Technopreneurship (ATT)*, vol. 7, no. 2, pp. 492–502, 2025.

[16] O. Jayanagara and A. Patricia, "Analyzing healthpreneur determinants for low-socioeconomic ethnic families," *Aptisi Transactions on Technopreneurship (ATT)*, vol. 7, no. 3, pp. 738–750, 2025.

[17] A. W. Hastuti and Q. Aini, "Impact of organizational climate, workload, and patient-centered care in hospital to improve nursing service quality," *Journal of Angiotherapy*, vol. 8, no. 5, 2024.

[18] I. P. Gustiah and H. Newell, "Enhancing human resource management efficiency through scalable blockchain networks with an adaptive ai approach," *Startupreneur Business Digital (SABDA Journal)*, vol. 4, no. 2, pp. 114–123, 2025.

[19] S. Iqbal, C. A. B. Taib, and M. R. Razalli, "The nexus between leadership styles and organizational performance: the mediating role of quality culture," *Quality Assurance in Education*, vol. 31, no. 4, pp. 600–615, 2023.

[20] N. Almohaisen, N. Alsayari, M. Abid, N. Al Subhi, A. Al Masoudi, O. AlGhazali, and A. Woodman, "Improving patient experience by implementing an organisational culture model," *BMJ Open Quality*, vol. 12, no. 2, p. e002076, 2023.

[21] H. Safitri, M. H. R. Chakim, and A. Adiwijaya, "Strategy based technology-based startups to drive digital business growth," *Startupreneur Business Digital (SABDA Journal)*, vol. 2, no. 2, pp. 207–220, 2023.

[22] Y. J. Mado, R. Irwansyah, K. Kasnowo, E. Irdhayanti, and K. Khairunnisa, "The influence of organizational culture on service quality with compensation as a moderate variable," *Innovative: Journal Of Social Science Research*, vol. 4, no. 2, pp. 1638–1648, 2024.

[23] M. G. Hardini, T. Khaizure, and G. Godwin, "Exploring the effectiveness of e-learning in fostering innovation and creative entrepreneurship in higher education," *Startupreneur Business Digital (SABDA Journal)*, vol. 3, no. 1, pp. 34–42, 2024.

[24] D. A. Ramadhanty, M. U. Putri, and M. Asbari, "The influence of total quality management on organizational performance on bank services," *Journal of Information Systems and Management (JISMA)*, vol. 2, no. 1, pp. 15–20, 2023.

[25] G. Silva, G. Godwin, and O. Jayanagara, "The impact of ai on personalized learning and educational analytics," *International Transactions on Education Technology (ITEE)*, vol. 3, no. 1, pp. 36–46, 2024.

[26] E. Ligia, K. Iskandar, I. K. Surajaya, M. Bayasut, O. Jayanagara, and K. Mizuno, "Cultural clash: Investigating how entrepreneurial characteristics and culture diffusion affect international interns' competency," *Aptisi Transactions on Technopreneurship (ATT)*, vol. 6, no. 2, pp. 182–198, 2024.

[27] S. K. Hilton, W. Madilo, F. Awaah, and H. Arkorful, "Dimensions of transformational leadership and organizational performance: the mediating effect of job satisfaction," *Management Research Review*, vol. 46, no. 1, pp. 1–19, 2023.

[28] D. S. Kahfi, I. Wibowo, and D. S. Widodo, "The effect of organizational culture and transformational leadership on organizational performance through employee motivation as a mediation variable at mercubuana university," *Journal of Humanities and Social Science Research*, vol. 1, no. 1, pp. 1–9, 2022.

[29] Republic of Indonesia, "Law of the republic of indonesia number 20 of 2023 on civil apparatus management," 2023, accessed on 2023-10-03. [Online]. Available: https://jdih.bkn.go.id/common/dokumen/2023uu20-2578.pdf

[30] S. Iqbal, C. A. B. Taib, and M. R. Razalli, "The nexus between leadership styles and organizational performance: the mediating role of quality culture," *Quality Assurance in Education*, vol. 31, no. 4, pp. 600–615, 2023.

[31] F. Maghsoud, M. Rezaei, F. S. Asgarian, and M. Rassouli, "Workload and quality of nursing care: the mediating role of implicit rationing of nursing care, job satisfaction and emotional exhaustion by using structural equations modeling approach," *BMC nursing*, vol. 21, no. 1, p. 273, 2022.

[32] W. A. Alkhadra, S. Khawaldeh, and J. Aldehayyat, "Relationship of ethical leadership, organizational culture, corporate social responsibility and organizational performance: a test of two mediation models," *International Journal of Ethics and Systems*, vol. 39, no. 4, pp. 737–760, 2023.

[33] H. Vahedi, S. R. Shivyari, S. Soltanmohamadi, and F. Babakhanian, "The role of leadership competence and organizational culture in enhancing healthcare service quality," *Journal of Archives in Military Medicine*, vol. 12, no. 12, p. e156498, 2024.

[34] M. Sarstedt, J. Hair, and C. Ringle, ""pls-sem: indeed a silver bullet" – retrospective observations and recent advances," *Journal of Marketing Theory and Practice*, vol. 31, no. 3, pp. 261–275, 2022.

[35] Y. Y. Mony, "The influence of workload on employee performance through job satisfaction with transformational leadership as a moderating variable at the regional revenue management agency of buru regency," *Journal of Tourism Economics and Policy*, vol. 6, no. 1, pp. 106–118, 2026.

[36] D. A. Sari, C. N. Ginting, and S. W. Nasution, "The effect of internal service quality and workload on job satisfaction at royal prima general hospital," *International Journal of Islamic Education, Research and Multiculturalism (IJIERM)*, vol. 7, no. 1, pp. 130–151, 2025.

[37] F. Filiyan, A. H. Prastyowati, and M. Dimyati, "The influence of workload and leadership style on employee performance," *Innovation Business Management and Accounting Journal*, vol. 4, no. 2, pp. 293–306, 2025.

[38] L. Hafni, A. Himawan, S. S. SD, and F. Firdaus, "Effect of leadership and workload on work motivation and employees performance pt. bank riau kepri pekanbaru branch," in *International Conference on Business Management and Accounting*, vol. 1, no. 1, November 2022, pp. 60–78.

[39] R. Awashreh and H. AlGhunaimi, "Navigating burnout in the public sector: Strategies for enhancing employee well-being and organizational performance," *Evolutionary Studies in Imaginative Culture*, vol. 8, no. 3, pp. 211–225, 2024.

[40] D. Wiyono, R. Tanjung, H. Setiadi, S. Marini, and Y. Sugiarto, "Organizational transformation: The impact of servant leadership on work ethic culture with burnout as a mediating factor in the hospitality industry," *arXiv preprint arXiv:2407.01533*, 2024.

[41] S. Bhat, J. Antony, M. Maalouf, G. EV, and S. Salah, "Applications of six sigma for service quality enhancement in the uae: a multiple case study analysis and lessons learned," *International Journal of Lean Six Sigma*, vol. 14, no. 7, pp. 1492–1517, 2023.

[42] G. Shan, W. Wang, S. Wang, Y. Zhang, S. Guo, and Y. Li, "Authoritarian leadership and nurse presenteeism: the role of workload and leader identification," *BMC Nursing*, vol. 21, no. 1, p. 337, 2022.

[43] A. Goula, T. Rizopoulos, M. Stamouli, M. Kelesi, E. Kaba, and S. Soulis, "Internal quality and job satisfaction in health care services," *International Journal of Environmental Research and Public Health*, vol. 19, no. 3, p. 1496, 2022.

[44] M. Fahlevi, M. Aljuaid, and S. Saniuk, "Leadership style and hospital performance: Empirical evidence from indonesia," *Frontiers in Psychology*, vol. 13, p. 911640, 2022.