



## Evaluating Public Service Quality: Why Employee Performance Outshines Service Standards and Work Culture in Shaping User Satisfaction

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DOI: <https://doi.org/10.61987/bamj.v3i2.1638>

### **Article History:**

*Received: 18 July 2025*

*Revised: 27 September 2025*

*Accepted: 21 November 2025*

### **Keywords:**

*Service Quality, Work Culture, Employee Performance, Customer Satisfaction*

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### **Abstract :**

This study aims to analyze the relationships among service standards, work culture, and employee performance in customer satisfaction in public services. A quantitative associative approach was employed, using Structural Equation Modeling (SEM) with SmartPLS 3.0 for data analysis. The study involved 70 institutions representing the entire population of service users. The results indicate that service standards and work culture have positive but not statistically significant effects on customer satisfaction, whereas employee performance has a positive, statistically significant effect. Simultaneously, service standards, work culture, and employee performance have a moderate positive influence on customer satisfaction. These findings imply that improving employee performance should be prioritized to enhance customer satisfaction. At the same time, service standards and work culture need to be strengthened through more effective implementation and organizational development strategies. Strengthening these aspects can support better service quality and increase overall user satisfaction in public services.

## INTRODUCTION

The rapid advancement of digital technology has significantly transformed public services, particularly in cybersecurity and information management. As societies increasingly rely on digital systems, ensuring their security and reliability has become a critical concern. However, the growing number of data breaches and cyber threats indicates that public trust in digital services remains vulnerable (H. S. Chen & Jai, 2021; Strzelecki & Rizun, 2022). In this context, the quality of public service delivery plays a vital role in maintaining user confidence and ensuring effective governance. One important indicator of successful public service is customer satisfaction, which reflects how well services meet user expectations. When public services fail to meet these expectations, dissatisfaction may arise, potentially reducing public trust and engagement. Therefore, improving customer satisfaction is not only important for organizational performance but also for strengthening public trust in government institutions. This highlights the importance of examining key factors that influence customer satisfaction, particularly in public service contexts that involve complex and sensitive domains such as information security (Magnusson et al., 2025; Teshome et al., 2020).

Customer satisfaction and service quality can be explained through several theoretical perspectives. Expectancy Disconfirmation Theory holds that satisfaction is formed by comparing expectations with perceived performance, with satisfaction occurring when performance meets or exceeds expectations (Ramasamy et al., 2024; Schiebler et al., 2025). In public services, this theory suggests that users evaluate services based on how well they fulfill prior expectations. In addition, Service Quality Theory emphasizes that service quality is determined by the gap between expected and perceived service, encompassing dimensions such as reliability, responsiveness, assurance, empathy, and tangibles (Anetoh et al., 2022; Setiono & Hidayat, 2022). Furthermore, organizational culture perspectives highlight that work culture influences employee behavior and service delivery, ultimately affecting customer satisfaction (Balaji et al., 2020; Metz et al., 2020). Employee performance theory also explains that the effectiveness of service delivery depends on employees' ability to perform tasks efficiently and meet organizational goals (Kinyanjui & Wambua, 2020; Nama et al., 2022). These theoretical perspectives indicate that service standards, work culture, and employee performance are interconnected factors that collectively influence customer satisfaction in public service organizations.

Despite the importance of these factors, many public service organizations still struggle to maintain high customer satisfaction levels. In practice, fluctuations and declines in satisfaction levels often occur, indicating inconsistencies in service quality (Gonu et al., 2023; Ramírez-Hurtado et al., 2021). Such conditions suggest that existing service standards may not be fully implemented, organizational work culture may not effectively support service excellence, and employee performance may vary across service units. In addition, the complexity of public service systems and the increasing expectations of users further exacerbate these challenges. These issues highlight the need to identify and analyze the key determinants of customer satisfaction in public services. Without a clear understanding of these factors, efforts to improve service quality may be ineffective and unsustainable. Therefore, addressing these challenges requires a systematic approach that considers both organizational and human resource factors influencing service delivery and customer satisfaction (Opoku & Barfi, 2022; Papademetriou et al., 2023).

Previous studies have examined the relationship between service standards, work culture, employee performance, and customer satisfaction. Research findings generally indicate that service standards positively influence customer satisfaction, as clear procedures and reliable service help meet user expectations (Gajewska et al., 2020; Singh et al., 2023). Similarly, work culture has been shown to influence service outcomes by shaping employee attitudes, behaviors, and commitment to service quality (Ababneh, 2021; Lo et al., 2024). In addition, employee performance has consistently been identified as a key determinant of customer satisfaction, as employees directly interact with users and deliver services (S.-W. Chen & Peng, 2021; Islam et al., 2021). However, these studies often focus on individual variables and examine their effects separately, without considering their combined influence within a single analytical framework. As a result, the interaction between these variables in shaping customer satisfaction remains insufficiently explored.

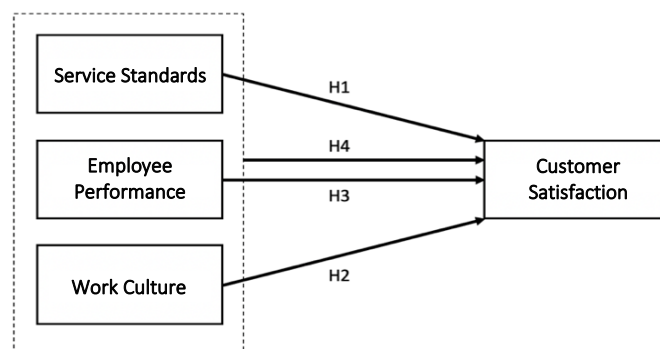
Furthermore, existing research has several limitations that highlight the need for further investigation. Many studies emphasize direct relationships between variables without examining how organizational factors and human resource capabilities interact

in influencing service outcomes (Bowen, 2024; S. Chen & Zheng, 2022). In addition, research on public services, particularly those related to information security and specialized service sectors, remains limited. This creates a gap in understanding how service standards, work culture, and employee performance collectively influence customer satisfaction in complex service environments. Therefore, there is a need for integrative research that examines these variables simultaneously to provide a more comprehensive understanding of customer satisfaction. Addressing this gap is important for developing more effective strategies to improve service quality and ensure that public services can meet increasing user expectations in the digital era (Abdussamad et al., 2024; Eze et al., 2024).

Based on these considerations, this study aims to analyze the influence of service standards, work culture, and employee performance on customer satisfaction, both partially and simultaneously. It is hypothesized that each variable has a positive relationship with customer satisfaction, and that their combined effect provides a stronger explanation of service outcomes. This study contributes to the literature by integrating multiple key variables into a single analytical model, offering a more comprehensive perspective on the determinants of customer satisfaction in public services. In practice, the findings are expected to provide policymakers and service providers with insights for designing strategies to improve service quality by strengthening service standards, fostering a supportive work culture, and enhancing employee performance.

## RESEARCH METHODS

This study employs a quantitative associative research design aimed at examining the relationships between service standards, work culture, employee performance, and customer satisfaction. This design is selected because it is appropriate for testing hypotheses and determining both partial and simultaneous effects among research variables using statistical analysis. The study focuses on explaining causal relationships between variables within a structured model. The research model is presented in Figure 4, which illustrates the relationship between independent variables and the dependent variable in this study (Flannelly et al., 2020; Malik & Gupta, 2022).



**Figure 1. Research Model**

Figure 1 illustrates the conceptual framework of this study, showing the relationships between the independent variables, namely service standards, work culture, and employee performance, and the dependent variable, customer satisfaction. The model indicates that each independent variable is hypothesized to have both partial and simultaneous effects on customer satisfaction. This framework serves as the basis for

testing the proposed hypotheses and analyzing the strength and direction of relationships among variables in the study (Grace & Irvine, 2020; Kent et al., 2020).

The population of this study consists of all Information Security Management System (ISMS) consulting firms and certification bodies registered in the service system. This study uses a census or total sampling technique, meaning all population members are used as respondents to obtain comprehensive data representation. Data were collected using structured questionnaires distributed to responsible representatives (PIC) of each institution. In addition, secondary data were obtained from official records related to registered ISMS service providers. This combination of primary and secondary data ensures data validity and completeness in describing the research variables.

Data analysis was conducted using Structural Equation Modeling (SEM) with SmartPLS software. This method is used to analyze relationships between latent variables and test hypotheses simultaneously. The evaluation process includes measurement model analysis, which assesses validity and reliability through factor loadings and composite reliability, and structural model analysis, which examines path coefficients, coefficient of determination ( $R^2$ ), and hypothesis testing. This approach enables the researcher to evaluate both direct and simultaneous effects of the independent variables on customer satisfaction (Khatoun et al., 2020; Özkan et al., 2020).

## RESULTS AND DISCUSSION

### Results

#### Descriptive Statistics

This section presents the descriptive statistical results of the research variables, including mean, median, minimum, maximum, and standard deviation.

**Table 1. Descriptive Statistics of Research Variable Data**

	Mean	Median	Min	Max	Standard Deviation
Y1	4.443	5.000	3.000	5.000	0,647
Y2	4.486	5.000	3.000	5.000	0,528
Y3	4.400	4.000	2.000	5.000	0,663
Y4	4.457	5.000	2.000	5.000	0,602
Y5	4.429	4.000	3.000	5.000	0,550
Y6	4.414	5.000	2.000	5.000	0,665
Y7	4.500	5.000	3.000	5.000	0,554
Y8	4.500	5.000	3.000	5.000	0,604
Y9	4.371	4.000	3.000	5.000	0,590
Y10	4.486	5.000	3.000	5.000	0,554
X1.1	4.514	5.000	3.000	5.000	0,649
X1.2	4.514	5.000	3.000	5.000	0,579
X1.3	4.471	5.000	2.000	5.000	0,626
X1.4	4.500	5.000	2.000	5.000	0,671
X1.5	4.571	5.000	3.000	5.000	0,523
X1.6	4.543	5.000	3.000	5.000	0,578
X1.7	4.571	5.000	3.000	5.000	0,575
X1.8	4.543	5.000	3.000	5.000	0,526
X1.9	4.400	4.000	3.000	5.000	0,595
X1.10	4.443	5.000	3.000	5.000	0,601
X1.11	4.600	5.000	3.000	5.000	0,518
X3.1	4.486	5.000	3.000	5.000	0,554
X3.2	4.486	5.000	2.000	5.000	0,603
X3.3	4.486	5.000	2.000	5.000	0,603

X3.4	4.514	5.000	3.000	5.000	0,554
X3.5	4.529	5.000	3.000	5.000	0,527
X3.6	4.400	4.000	3.000	5.000	0,518
X2.1	4.500	5.000	2.000	5.000	0,604
X2.2	4.514	5.000	4.000	5.000	0,500
X2.3	4.371	4.000	1.000	5.000	0,700
X2.4	4.414	4.000	2.000	5.000	0,573
X2.5	4.429	4.000	3.000	5.000	0,550
X2.6	4.543	5.000	3.000	5.000	0,526

Based on Table 1, all indicators have relatively high mean values. The median values are mostly 5.000. The minimum values range from 1.000 to 3.000, while the maximum value for all indicators is 5.000. The standard deviation values are relatively small.

The research begins with prerequisite tests, including validity, reliability, and multicollinearity based on the PLS Algorithm. The validity of the measurement model is assessed using outer loading, as presented in Table 2.

**Table 2. Outer Loading Value Test Results**

	Work culture	Customer satisfaction	Employee performance	Service standards
X1.1				0.748
X1.10				0.762
X1.11				0.700
X1.2				0.713
X1.3				0.713
X1.4				0.747
X1.5				0.713
X1.6				0.723
X1.7				0.723
X1.8				0.767
X1.9				0.763
X2.1	0.781			
X2.2	0.707			
X2.3	0.809			
X2.4	0.756			
X2.5	0.760			
X2.6	0.712			
X3.1			0.767	
X3.2			0.833	
X3.3			0.751	
X3.4			0.708	
X3.5			0.745	
X3.6			0.738	
Y10		0.709		
Y2		0.711		
Y3		0.720		
Y4		0.728		
Y5		0.722		
Y6		0.714		
Y7		0.725		
Y8		0.714		
Y9		0.754		
Y1		0.728		

Based on Table 2, all outer loading values are above 0.7, indicating that all indicators are valid. The evaluation continues with construct validity and reliability testing, as presented in Table 3.

**Table 3. Construct Validity and Reliability Test Results**

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Work Culture	0.849	0.857	0.888	0.570
Customer Satisfaction	0.899	0.902	0.916	0.522
Employee Performance	0.853	0.878	0.890	0.575
Service Standards	0.917	0.933	0.928	0.639

Based on the results in Table 3, the constructs in this study demonstrate satisfactory levels of reliability and validity. Cronbach's Alpha and rho\_A values for all variables exceed the acceptable threshold of 0.7, indicating good internal consistency and convergent reliability. Similarly, the Composite Reliability values exceed 0.8 for all constructs, further confirming the measurement model's reliability. The Average Variance Extracted (AVE) values are also above 0.5 for each construct, meeting the criterion for convergent validity and suggesting that each construct explains a substantial amount of variance in its indicators. Together, these findings support the robustness of the measurement model and confirm that the variables used in this study are reliable and valid for further analysis in examining their relationships with customer satisfaction.

The evaluation continues with discriminant validity, reliability, and multicollinearity testing. Discriminant validity is assessed using the Fornell-Larcker criterion, as presented in Table 4.

**Table 4. Discriminant validity test results**

Variable	Work Culture	Customer Satisfaction	Employee Performance	Service Standards
Work Culture	0.755			
Customer Satisfaction	0.448	0.723		
Employee Performance	0.558	0.549	0.758	
Service Standards	0.272	0.400	0.442	0.734

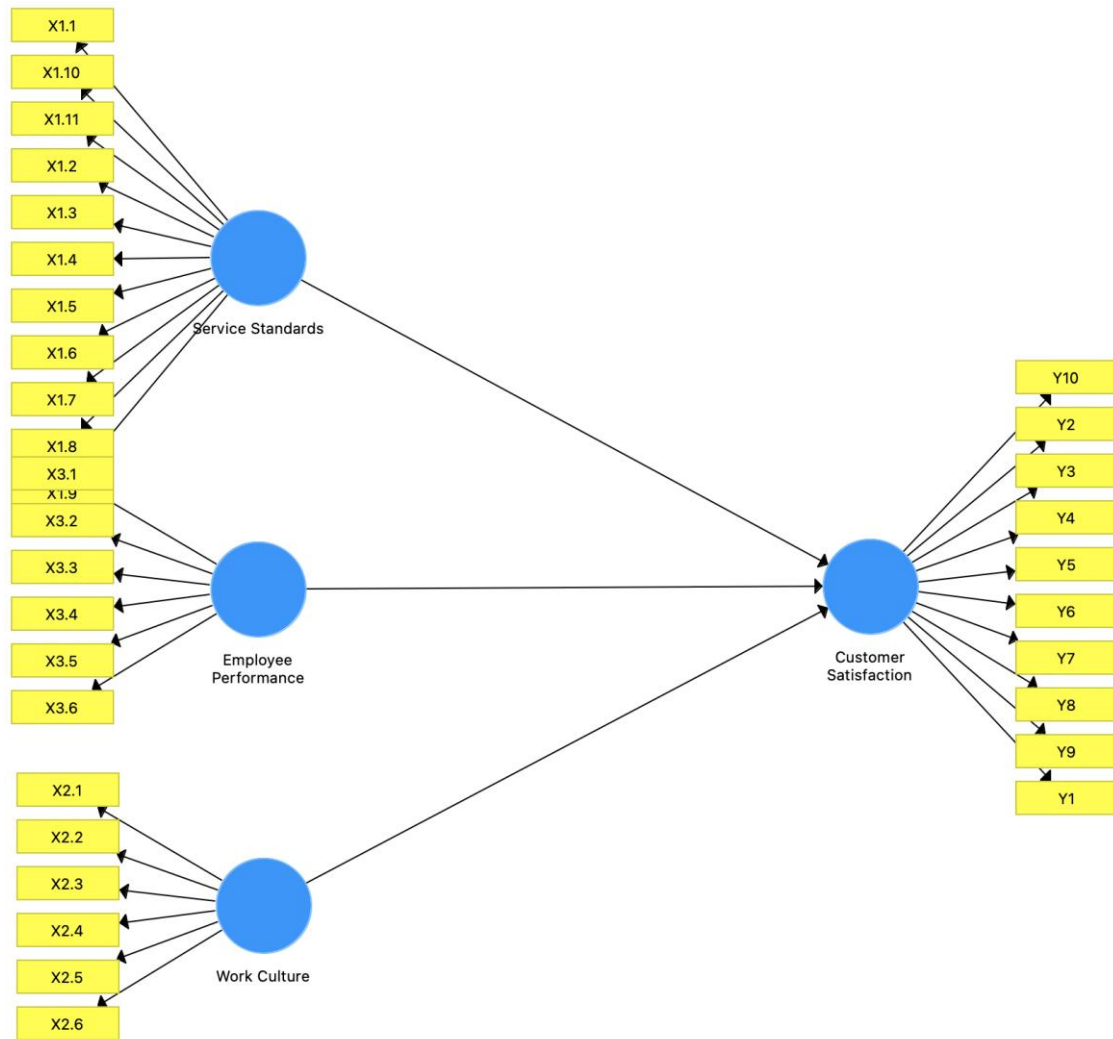
Based on Table 4, it can be observed that the square root of the AVE for each construct (diagonal values) is higher than the correlation values between constructs. Table 4 shows that each construct has sufficient discriminant validity, indicating that each variable is empirically distinct from the others.

The collinearity test is conducted using Variance Inflation Factor (VIF) values to ensure that there is no multicollinearity among the independent variables. The results of this test are presented in Table 5.

**Table 5. Collinearity Test Results**

Variable	Work Culture	Customer Satisfaction	Employee Performance	Service Standards
Work Culture		1.454		
Customer Satisfaction				
Employee Performance		1.673		
Service Standards		1.244		

Based on Table 5, all VIF values are below 5, indicating that there is no multicollinearity problem among the variables in the model. This confirms that the model is free from collinearity issues and is suitable for further analysis.



**Figure 2. Model structure among Service Standards, Work Culture, Employee Performance, and Customer Satisfaction**

Based on Figure 2, the influence index of the independent variables on the dependent variable is 0.360. Based on Table 6, the R-squared value for customer satisfaction is 0.360.

<b>Variable</b>	<b>R-Square</b>	<b>Adjusted R-Square</b>
Customer Satisfaction	0.360	0.331

In Table 6, the R-squared value for Customer Satisfaction is 0.360. This means that the independent variables—Service Standards, Work Culture, and Employee Performance—account for 36% of the variance in Customer Satisfaction, with the remaining 64% being explained by other factors not covered in this research model.

Based on Table 7 and Table 8, the following model fit test results were obtained:

Table 7. SRMR and NFI values

	Saturated Model	Estimated Model
SRMR	0.097	0.097
d_ULS	5.236	5.236
d_G	2.413	2.413
Chi-Square	732.354	732.354
NFI	0.571	0.571

Based on Table 7, the model fit results indicate that SRMR = 0.097 exceeds the 0.05 threshold and NFI = 0.571 falls below 0.90, suggesting that the current model does not fit the data well. The high Chi-Square value of 732.354 and the relatively large d\_ULS and d\_G indicate a significant deviation between the estimated model covariance and the observed data. Overall, these results indicate that the model is not optimal and needs to be revised, either through adjustments to indicators or to the path structure, to better explain the relationship between variables.

Table 8. rms Theta values

rms Theta	0.148
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In Table 8, the RMS Theta value is greater than 0.12. Hypothesis testing is conducted using the bootstrapping method to examine the significance of relationships between constructs. The results of the path coefficients are presented in Table 9.

Table 9. Path Coefficient

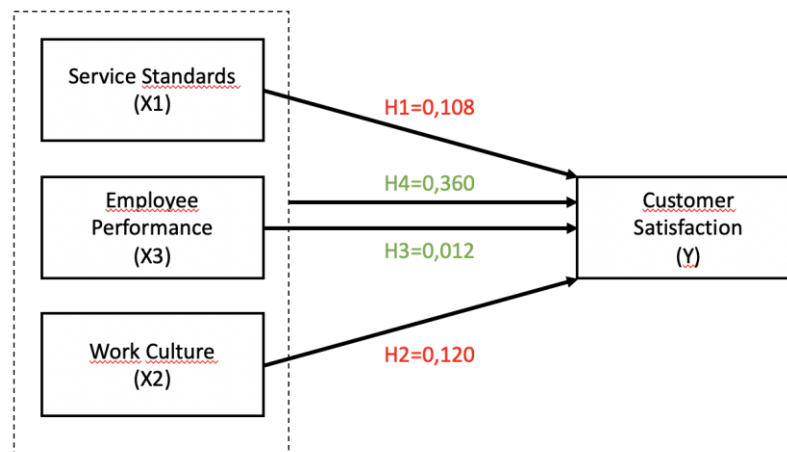
	Original Sample (C)	Sample Mean (M)	Standard Deviation	T Statistics ( O/ST )	P Values
Work Culture -> Customer Satisfaction	0.199	0.220	0.126	1.583	0.114
<b>Work culture -&gt; Customer satisfaction</b>	0.190	0.221	0.121	1.563	0.119
Employee Performance -> Customer Satisfaction	0.354	0.344	0.143	2.472	0.014

The coefficient of work culture on customer satisfaction is 0.199, with a bootstrap value of 0.228, t-statistic of 1.608, standard deviation of 0.124, and p-value of 0.108; the coefficient of employee performance on customer satisfaction is 0.354, with a bootstrap value of 0.320, t-statistic of 2.511, standard deviation of 0.141, and p-value of 0.012; and the coefficient of service standards on customer satisfaction is 0.190, with a bootstrap value of 0.237, t-statistic of 1.556, standard deviation of 0.122, and p-value of 0.120. The total effects between constructs are presented in Table 10, with values equal to the direct effects.

**Table 10. Total Effects**

	Original Sample (C)	Sample Mean (M)	Standard Deviation	T Statistics ( O/ST )	P Values
Employee Perfo...	0.354	0.344	0.143	2.472	<b>0.014</b>
Service Standar...	0.190	0.221	0.121	1.563	<b>0.119</b>
Work Culture ->...	0.199	0.220	0.126	1.583	<b>0.114</b>

Based on Table 10, the coefficient of work culture on customer satisfaction is 0.199, with a bootstrap value of 0.228, t-statistic of 1.608, standard deviation of 0.124, and p-value of 0.108; the coefficient of service standards on customer satisfaction is 0.190, with a bootstrap value of 0.237, t-statistic of 1.556, standard deviation of 0.122, and p-value of 0.120; and the coefficient of employee performance on customer satisfaction is 0.354, with a bootstrap value of 0.320, t-statistic of 2.511, standard deviation of 0.141, and p-value of 0.012. The research model is presented in Figure 3.



**Figure 3. Hypothesis Model**

Based on Figure 3, the hypothesis model shows that Employee Performance has the strongest positive influence on Customer Satisfaction with a coefficient of 0.360, indicating that effective employee performance directly increases customer satisfaction. Meanwhile, Service Standards ( $H1 = 0.108$ ) and Work Culture ( $H2 = 0.120$ ) also have a positive influence, albeit relatively small, indicating that although service standards and work culture contribute, their impact on customer satisfaction remains limited. The very small coefficient for  $H3$  (0.012) indicates that the direct influence of employee performance is almost insignificant, so performance improvements need to be directed to be translated into real customer experiences. Overall, this model emphasizes the importance of improving employee performance as a key factor in increasing customer satisfaction, while simultaneously improving service standards and work culture to enhance the overall effect.

## Discussion

The results of this study show that employee performance has a positive and significant effect on customer satisfaction, while service standards and work culture have positive but not significant effects. This indicates that employee performance is the most dominant factor influencing satisfaction. This finding is consistent with previous studies

which state that employee performance directly determines service quality and customer satisfaction (Son et al., 2021; Yum & Yoo, 2023), especially through effective service delivery and interaction with users.

However, service standards do not show a significant effect, although the relationship is positive. This differs from several previous studies that found a significant relationship between service standards and customer satisfaction (Gupta et al., 2023; Yum & Yoo, 2023). One possible explanation is that service standards are already considered basic expectations. Based on Expectancy Disconfirmation Theory, satisfaction increases only when performance exceeds expectations, not when it merely meets them (Anabila et al., 2022; Otto et al., 2020).

Work culture also shows a positive but not significant effect on customer satisfaction. This result is partially in line with previous research emphasizing the importance of organizational culture (Arabeche et al., 2022; Imran et al., 2022). However, the insignificant result suggests that work culture may influence satisfaction indirectly. According to Total Quality Management theory, work culture shapes internal processes and employee behavior, which then affect performance (Ababneh, 2021; R. Chen et al., 2020).

The simultaneous effect results indicate that service standards, work culture, and employee performance together have a moderate influence on customer satisfaction. This supports the idea that customer satisfaction is influenced by multiple factors, including organizational systems and human resources (Papademetriou et al., 2023; Weller et al., 2020). Although not all variables are significant individually, their combined effect remains important.

Theoretically, this study supports the integration of Expectancy Disconfirmation Theory, Service Quality Theory, and Total Quality Management. The findings suggest that employee performance plays a key role in translating service systems into actual service outcomes. This implies that theoretical models of customer satisfaction should emphasize the role of human resources in service delivery (Najam et al., 2020; Papademetriou et al., 2023).

Practically, the findings suggest that improving employee performance should be prioritized to enhance customer satisfaction. Service standards and work culture should also be strengthened to support performance. Therefore, organizations need to integrate system improvements with human resource development to achieve better service quality and customer satisfaction.

## CONCLUSION

This study finds that service standards, work culture, and employee performance all have positive influences on customer satisfaction, both partially and simultaneously, with employee performance emerging as the most significant factor. The key lesson from this research is that customer satisfaction in public services is more strongly shaped by how services are delivered rather than merely how they are structured. While service standards and work culture provide an important foundation, their impact becomes meaningful when supported by effective employee performance. This study contributes to the literature by integrating organizational and human resource factors within a single analytical model, demonstrating that employee performance plays a central role in translating service systems into actual service outcomes.

However, this study has several limitations. The use of a relatively small sample size and a specific service context may limit the generalizability of the findings. In addition, the model explains only part of the variation in customer satisfaction, indicating that other factors such as technology, leadership, and user expectations may also play important roles. Therefore, future research is recommended to include broader samples, additional variables, and more comprehensive models, as well as to explore potential mediating or moderating relationships to better understand the determinants of customer satisfaction.

## ACKNOWLEDGMENT

We express our deepest gratitude to the Open University, Indonesia, for the support, facilities, and guidance provided to ensure this research could be completed successfully.

## REFERENCES

- Ababneh, O. M. A. (2021). The impact of organizational culture archetypes on quality performance and total quality management: the role of employee engagement and individual values. *International Journal of Quality & Reliability Management*, 38(6), 1387–1408. <https://doi.org/10.1108/IJQRM-05-2020-0178>
- Abdussamad, Z., Judijanto, L., Yusup, A., Husni Tamrin, A. M., Rosyalita, D., & Sari Rahayu, H. W. (2024). Enhancing Public Service Delivery through Digital Transformation: Challenges and Opportunities in the Era of E-Government. *Pakistan Journal of Life & Social Sciences*, 22(2). <https://doi.org/10.57239/PJLSS-2024-22.2.001601>
- Anabila, P., Ameyibor, L. E. K., Allan, M. M., & Alomenu, C. (2022). Service quality and customer loyalty in Ghana's hotel industry: The mediation effects of satisfaction and delight. *Journal of Quality Assurance in Hospitality & Tourism*, 23(3), 748–770. <https://doi.org/10.1080/1528008X.2021.1913691>
- Anetoh, J. C., Okafor, C. A., Ewuzie, C. O., & Okeke, L. N. (2022). Service quality dimensions and their influences on customer satisfaction: evidence from new generation banks In: Nigeria. *Res. J. Manage. Pract*, 2782, 7674.
- Arabeche, Z., Soudani, A., Brahmi, M., Aldieri, L., Vinci, C. P., & Abdelli, M. E. A. (2022). Entrepreneurial orientation, organizational culture and business performance in SMEs: Evidence from emerging economy. *Sustainability*, 14(9), 5160. <https://doi.org/10.3390/su14095160>
- Balaji, M. S., Jiang, Y., Singh, G., & Jha, S. (2020). Letting go or getting back: How organization culture shapes frontline employee response to customer incivility. *Journal of Business Research*, 111, 1–11. <https://doi.org/10.1016/j.jbusres.2020.02.007>
- Bowen, D. E. (2024). An organizational behavior/human resource management perspective on the roles of people in a service organization context: frameworks and themes. *Journal of Service Management*, 35(1), 1–21. <https://doi.org/10.1108/JOSM-10-2023-0424>
- Chen, H. S., & Jai, T.-M. (2021). Trust fall: data breach perceptions from loyalty and non-loyalty customers. *The Service Industries Journal*, 41(13–14), 947–963. <https://doi.org/10.1108/JOSM-10-2023-0424>

- Chen, R., Lee, Y.-D., & Wang, C.-H. (2020). Total quality management and sustainable competitive advantage: serial mediation of transformational leadership and executive ability. *Total Quality Management & Business Excellence*, 31(5–6), 451–468. <https://doi.org/10.1080/14783363.2018.1476132>
- Chen, S.-W., & Peng, J.-C. (2021). Determinants of frontline employee engagement and their influence on service performance. *The International Journal of Human Resource Management*, 32(5), 1062–1085. <https://doi.org/10.1080/09585192.2018.1505764>
- Chen, S., & Zheng, J. (2022). Influence of organizational learning and dynamic capability on organizational performance of human resource service enterprises: moderation effect of technology environment and market environment. *Frontiers in Psychology*, 13, 889327. <https://doi.org/10.3389/fpsyg.2022.889327>
- Eze, O. I., Chibuzor, C. N., Okafor, J. C., & Osita, J. I. (2024). Leveraging technology to bridge the policy innovation gap in developing countries: Enhancing service delivery and public engagement. *West African Journal of Interdisciplinary Research (ISSN: 3027-1878)*, 2(2).
- Flannelly, L. T., Flannelly, K. J., & Jankowski, K. R. B. (2020). Independent, dependent, and other variables in healthcare and chaplaincy research. In *Quantitative research for chaplains and health care professionals* (pp. 34–43). Routledge. <https://doi.org/10.4324/9780429435690-5>
- Gajewska, T., Zimon, D., Kaczor, G., & Madzik, P. (2020). The impact of the level of customer satisfaction on the quality of e-commerce services. *International Journal of Productivity and Performance Management*, 69(4), 666–684. <https://doi.org/10.1108/IJPPM-01-2019-0018>
- Gonu, E., Agyei, P. M., Richard, O. K., & Asare-Larbi, M. (2023). Customer orientation, service quality and customer satisfaction interplay in the banking sector: An emerging market perspective. *Cogent Business & Management*, 10(1), 2163797. <https://doi.org/10.1080/23311975.2022.2163797>
- Grace, J. B., & Irvine, K. M. (2020). Scientist’s guide to developing explanatory statistical models using causal analysis principles. *Ecology*, 101(4), e02962. <https://doi.org/10.1002/ecy.2962>
- Gupta, A., Singh, R. K., Mathiyazhagan, K., Suri, P. K., & Dwivedi, Y. K. (2023). Exploring relationships between service quality dimensions and customers satisfaction: empirical study in context to Indian logistics service providers. *The International Journal of Logistics Management*, 34(6), 1858–1889. <https://doi.org/10.1108/IJLM-02-2022-0084>
- Imran, M., Ismail, F., Arshad, I., Zeb, F., & Zahid, H. (2022). The mediating role of innovation in the relationship between organizational culture and organizational performance in Pakistan’s banking sector. *Journal of Public Affairs*, 22, e2717. <https://doi.org/10.1002/pa.2717>
- Islam, R., Ahmed, S., Rahman, M., & Al Asheq, A. (2021). Determinants of service quality and its effect on customer satisfaction and loyalty: an empirical study of private banking sector. *The TQM Journal*, 33(6), 1163–1182. <https://doi.org/10.1108/TQM-05-2020-0119>
- Kent, P., Cancelliere, C., Boyle, E., Cassidy, J. D., & Kongsted, A. (2020). A conceptual framework for prognostic research. *BMC Medical Research Methodology*, 20(1), 172. <https://doi.org/10.1186/s12874-020-01050-7>

- Khatoon, S., Zhengliang, X., & Hussain, H. (2020). The Mediating Effect of customer satisfaction on the relationship between Electronic banking service quality and customer Purchase intention: Evidence from the Qatar banking sector. *Sage Open*, 10(2), 2158244020935887. <https://doi.org/10.1177/2158244020935887>
- Kinyanjui, H. W., & Wambua, P. P. (2020). Performance management practices, organization structure and service delivery. *Journal of Human Resource and Leadership*, 5(1), 1–14.
- Lo, Y.-C., Lu, C., Chang, Y.-P., & Wu, S.-F. (2024). Examining the influence of organizational commitment on service quality through the lens of job involvement as a mediator and emotional labor and organizational climate as moderators. *Heliyon*, 10(2). <https://doi.org/10.1016/j.heliyon.2024.e24130>
- Magnusson, L., & Dalipi, F. (2025). Information security governance in the public sector: investigations, approaches, measures, and trends. *International Journal of Information Security*, 24(4), 177. <https://doi.org/10.1007/s10207-025-01097-x>
- Malik, P. (2022). Relationship between Independent and Dependent Variables and Calculating the Accuracy of Predicted and Actual Values using Linear Regression Method of Machine Learning. In *Applications of Machine intelligence in Engineering* (pp. 65–70). CRC Press. <https://doi.org/10.1201/9781003269793-8>
- Metz, D., Ilies, L., & Nistor, R. L. (2020). The impact of organizational culture on customer service effectiveness from a sustainability perspective. *Sustainability*, 12(15), 6240. <https://doi.org/10.3390/su12156240>
- Najam, U., & Liaquat, M. (2020). A link between human resource management practices and customer satisfaction: A moderated mediation model. *Sage Open*, 10(4), 2158244020968785. <https://doi.org/10.1177/2158244020968785>
- Nama, K., Daweti, B., Lourens, M., & Chikukwa, T. (2022). The impact of training and development on employee performance and service delivery at a local municipality in South Africa. *Problems and Perspectives in Management*, 20(4), 42. [https://doi.org/10.21511/ppm.20\(4\).2022.04](https://doi.org/10.21511/ppm.20(4).2022.04)
- Opoku, F. K., & Barfi, K. A. (2022). Factors affecting the service delivery quality of library staff: perspective of a developing country. *International Journal of Work Innovation*, 3(2), 166–182. <https://doi.org/10.1504/IJWI.2022.126873>
- Otto, A. S., Szymanski, D. M., & Varadarajan, R. (2020). Customer satisfaction and firm performance: insights from over a quarter century of empirical research. *Journal of the Academy of Marketing Science*, 48(3), 543–564. <https://doi.org/10.1007/s11747-019-00657-7>
- Özkan, P., Süer, S., Keser, İ. K., & Kocakoç, İ. D. (2020). The effect of service quality and customer satisfaction on customer loyalty: The mediation of perceived value of services, corporate image, and corporate reputation. *International Journal of Bank Marketing*, 38(2), 384–405. <https://doi.org/10.1108/IJBM-03-2019-0096>
- Papademetriou, C., Anastasiadou, S., & Papalexandris, S. (2023). The effect of sustainable human resource management practices on customer satisfaction, service quality, and institutional performance in hotel businesses. *Sustainability*, 15(10), 8251. <https://doi.org/10.3390/su15108251>
- Ramasamy, G., Ramasamy, G. D., & Ramasamy, P. (2024). Conceptual review of consumer satisfaction theories with expectation-confirmation and disconfirmation paradigm for business sustainable growth and decision making. *F1000Research*, 13, 1399. <https://doi.org/10.12688/f1000research.158612.1>

- Ramírez-Hurtado, J. M., Hernández-Díaz, A. G., López-Sánchez, A. D., & Pérez-León, V. E. (2021). Measuring online teaching service quality in higher education in the COVID-19 environment. *International Journal of Environmental Research and Public Health*, 18(5), 2403. <https://doi.org/10.3390/ijerph18052403>
- Schiebler, T., Lee, N., & Brodbeck, F. C. (2025). Expectancy-disconfirmation and consumer satisfaction: A meta-analysis. *Journal of the Academy of Marketing Science*, 1–22. <https://doi.org/10.1007/s11747-024-01078-x>
- Setiono, B. A., & Hidayat, S. (2022). Influence of service quality with the dimensions of reliability, responsiveness, assurance, empathy and tangibles on customer satisfaction. *International Journal of Economics, Business and Management Research*, 6(09), 330–341. <https://doi.org/10.51505/IJEBMR.2022.6924>
- Singh, V., Sharma, M. P., Jayapriya, K., Kumar, B. K., Chander, M., & Kumar, B. R. (2023). Service quality, customer satisfaction and customer loyalty: A comprehensive literature review. *Journal of Survey in Fisheries Sciences*, 10(4S), 3457–3464.
- Son, J. H., Kim, J. H., & Kim, G. J. (2021). Does employee satisfaction influence customer satisfaction? Assessing coffee shops through the service profit chain model. *International Journal of Hospitality Management*, 94, 102866. <https://doi.org/10.1016/j.ijhm.2021.102866>
- Strzelecki, A., & Rizun, M. (2022). Consumers' change in trust and security after a personal data breach in online shopping. *Sustainability*, 14(10), 5866. <https://doi.org/10.3390/su14105866>
- Teshome, Z., Belete, B., Gizaw, G., & Mengiste, M. (2020). Customer satisfaction and public service delivery: The case of Dire Dawa Administration. *Public Policy and Administration Research*, 10(7), 8–23.
- Weller, I., Süß, J., Evanschitzky, H., & von Wangenheim, F. (2020). Transformational leadership, high-performance work system consensus, and customer satisfaction. *Journal of Management*, 46(8), 1469–1497. <https://doi.org/10.1177/0149206318817605>
- Yum, K., & Yoo, B. (2023). The impact of service quality on customer loyalty through customer satisfaction in mobile social media. *Sustainability*, 15(14), 11214. <https://doi.org/10.3390/su151411214>