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SERVICE QUALITY AND EMPLOYEE RESPONSIBILITY FOR PUBLIC SATISFACTION: A PLS-SEM AND ISLAMIC PERSPECTIVE AT PERUMDA AIR MINUM LAE NCIHO, 2025

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ABSTRACT
This study examines how operational performance, service quality, and accountability influence public satisfaction at Perumda Air Minum Lae Nciho within an Islamic framework. Motivated by recurring complaints of unequal distribution, poor service, and delayed responses, the research underscores public service as an *amanah* requiring *ihsan*, in line with the Prophet's teaching on *itqan*. Using a quantitative design with purposive sampling, 102 customers were surveyed and data analyzed through SEM-PLS. The model showed strong fit (SRMR = 0.062; $Q^2 > 0$), with operational performance having the greatest effect (β = 0.573), followed by service quality (β = 0.240) and accountability (β = 0.187). The model explained 86.4% of satisfaction variance ($R^2 = 0.864$). Findings highlight the role of *amanah*, responsibility, and *maqāṣid al-shari'ah* in improving service quality. Recommendations include structured distribution, an online complaint system, and employee capacity building. Limitations relate to regional focus and variable scope; future studies should integrate technological innovation and Islamic leadership.

Keywords: Public Satisfaction, Operational Performance, Service Quality, Accountability, SEM-PLS

ABSTRAK
Studi ini menganalisis pengaruh kinerja operasional, kualitas layanan, dan akuntabilitas terhadap kepuasan publik pada Perumda Air Minum Lae Nciho dalam kerangka perspektif Islam. Penelitian dilatarbelakangi keluhan berulang mengenai ketidakmerataan distribusi air, rendahnya mutu layanan, serta lambannya respons pengaduan, yang dipandang sebagai pelanggaran terhadap amanah pelayanan publik. Dengan pendekatan kuantitatif dan purposive sampling, sebanyak 102 pelanggan aktif disurvei dan data diolah menggunakan SEM-PLS. Hasil menunjukkan model yang sangat layak (SRMR = 0,062; $Q^2 > 0$), dengan kinerja operasional berpengaruh paling kuat (β = 0,573), disusul kualitas layanan (β = 0,240) dan akuntabilitas (β = 0,187). Model menjelaskan 86,4% varians kepuasan publik ($R^2 = 0,864$). Temuan menegaskan pentingnya nilai amanah, tanggung jawab, serta prinsip maqaṣid al-shari'ah dalam peningkatan mutu layanan publik. Rekomendasi praktis mencakup penjadwalan distribusi yang terstruktur, sistem pengaduan daring terpadu, serta penguatan kapasitas pegawai. Keterbatasan studi meliputi lingkup regional dan variabel terbatas; penelitian selanjutnya disarankan memperluas cakupan serta memasukkan dimensi inovasi teknologi dan kepemimpinan Islami.

Kata Kunci: *Kepuasan Masyarakat, Kinerja Operasional, Kualitas Layanan, Akuntabilitas, SEM-PLS*

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INTRODUCTION

Public service is a fundamental responsibility of governments in fulfilling the essential needs of society, particularly the provision of safe drinking water. Communities in Dairi and Pakpak Bharat Regencies are highly dependent on the Lae Nciho Regional Drinking Water Company (*Perumda Air Minum Lae Nciho*) for their clean water supply. As expectations for improved water services increase, the evaluation of operational performance has become indispensable in enhancing effectiveness, efficiency, and accountability to ensure public satisfaction (Nasution, H. Sudiarti, & S. Harahap, 2021).

One of the key objectives of performance evaluation is to strengthen the company's ability to deliver optimal water services to the community. In line with this, understanding customer expectations and striving to achieve service quality is crucial (Abduh Malik Ahmad Arrasyid & Nurbaiti, 2022). Consumer satisfaction is therefore a central dimension in the legitimacy of public service institutions (Suandi, 2019).

Despite these objectives, several challenges persist. Field reports and staff interviews at Lae Nciho highlight irregular water distribution—restricted to certain hours (03:00–09:00 and 16:00–22:00)—as well as murky water during landslides or processing disruptions. Furthermore, tariffs have risen by 53.85% without corresponding service improvements. Customers also report unresponsive, inconsistent, and less approachable staff behavior (Susanty et al., 2025). These issues highlight the importance of evaluating services using nationally recognized indicators such as continuity, water pressure, and turbidity, as outlined in the Ministry of Health Regulation No. 492/2010 on Drinking Water Quality Standards (Permenkes, 2010).

Water quality remains another pressing issue. Landslides around the spring sources, operational failures, and unclean pipes or tanks often result in turbid water. Temporary service suspensions intended to safeguard water quality paradoxically intensify scarcity. Likewise, the recent tariff increase—despite remaining stagnant for 12 years—has generated public dissatisfaction, as improvements in supply and quality have not materialized. Citizens expect that tariff adjustments be matched with tangible service improvements in both continuity and quality.

Beyond technical shortcomings, the human dimension of public service also draws concern. Complaints include uncertainty in communication, inconsistent information, lack of courtesy, and slow responses to grievances, indicating that accountability and responsiveness must be reinforced (Susanty et al., 2025).

Table 1 below presents the current tariff structure of Perumda Air Minum Lae Nciho (2024), which illustrates the significant increase across consumer categories.

Table 1. Water Tariff List, 2024

No	Consumer Category	Tariff (Rp/m³)	Block I 0–10 m³	Block II 11–20 m³	Block III 21–30 m³	Block IV 31–40 m³	Block V >40 m³
A. Group I							
1	Household A (RT.A)	2,000	2,415	2,760	3,105	3,450	
2	General Social (SU)	2,000	2,415	2,760	3,105	3,450	
3	Special Social (SK)	2,000	2,415	2,760	3,105	3,450	
B. Group II							
1	Household B (RT.B)	3,450	4,313	4,830	5,520	6,500	
2	Micro Enterprises (UM)	3,450	4,485	5,003	5,693	6,500	
3	Government Institutions (IP)	3,450	4,313	4,830	5,520	6,500	
C. Group III							
1	Household C (RT.C)	6,500	7,418	8,970	9,660	10,500	
2	Small Enterprises (UK)	6,500	7,418	8,970	9,833	10,500	
D. Group IV							
1	Medium Enterprises	Tariff by Agreement					
2	Special Group (Agreement-based)	Tariff by Agreement					

Source: Perumda Air Minum Lae Nciho, 2024

Previous studies (Amrie Firmansyah, 2021; Hardiana & Setiawan, 2021; Pertiwi et al.,

2023) largely examined factors influencing corporate operational performance but failed to investigate how such performance translates into customer satisfaction through service quality and employee accountability. In theoretical terms, earlier research tended to emphasize direct relationships between operational performance and satisfaction while overlooking potential mediating mechanisms such as service quality and employee responsibility—key aspects of *public service logic*. Moreover, prior frameworks have not integrated conventional service evaluation models (e.g., SERVQUAL/SERVPERF) with Islamic perspectives.

This study thus addresses that gap by evaluating whether operational performance at Lae Nciho effectively improves service quality and enhances public satisfaction. Operational evaluation here goes beyond meeting internal benchmarks and instead emphasizes responsiveness to citizens as service beneficiaries.

Incorporating an Islamic perspective is also vital, as public service is conceived not only as an administrative duty but as *'ibādah ijtimā'iyyah* (social worship) rooted in *amanah* (trust), *ihsan* (excellence), and *itqan* (professional perfection). These principles align with *maqāṣid al-sharī'ah*, particularly in safeguarding life (*ḥifẓ al-nafs*) and health. The Qur'an (16:90) and the Prophetic tradition affirm the ethical imperative of justice, excellence, and perfection in work, framing public service as both a managerial task and a moral obligation.

Accordingly, the research advances the following questions:

1. Does operational performance significantly affect public satisfaction?
2. Does service quality strengthen the influence of operational performance on satisfaction?
3. Does employee accountability contribute to public satisfaction?

From these, three hypotheses are proposed:

- **H1:** Operational performance has a positive effect on public satisfaction
- **H2:** Service quality has a positive effect on public satisfaction.
- **H3:** Employee accountability has a positive effect on public satisfaction.

Through this lens, the study aims to make both theoretical and practical contributions: theoretically enriching discourse on public service delivery, and practically offering insights for Perumda Air Minum Lae Nciho to enhance service quality in line with professional standards and Islamic ethical principles.

RESEARCH METHODS

This study employed a mixed design, integrating descriptive methods with a quantitative approach. Operational performance was assessed quantitatively through indicators of employee accountability and service quality, while the descriptive component elaborated on how operational performance influences public satisfaction. As noted by Sugiyono (2017), positivist epistemology underpins the use of quantitative procedures, which involve observing a specific population or sample, collecting data with standardized instruments, and statistically analyzing the results to test prior theoretical propositions. The objective of this research is to provide an overview of the operational performance of Perumda Air Minum Lae Nciho in relation to public satisfaction.

The study focused on four variables: operational performance (X1), service quality (X2), employee responsibility (X3), and public satisfaction (Y). All constructs were measured using a structured questionnaire with a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Measurement items were

adapted from established instruments in previous studies, subjected to back-translation procedures, and refined through expert-based content validity checks.

Table 2. Measurement Indicators of Research Variables

Variable	Indicators	Sample Item	References
Operational Performance (X1)	Timeliness of distribution, distribution efficiency, network maintenance effectiveness	*"Perumda consistently distributes water according to the announced schedule."*	Mawardi (2022)
Service Quality (X2)	Tangibles, Reliability, Responsiveness, Assurance, Empathy	*"Staff respond promptly when customers file complaints."*	Parasuraman et al. (1988); Budiarno et al. (2022)
Employee Responsibility (X3)	Accountability, response speed, complaint follow-up	*"Complaints are followed up within a reasonable timeframe."*	Utami (2023); Widyawati et al. (2022)
Public Satisfaction (Y)	Perceived quality, expectation alignment, user loyalty	*"The services provided by Perumda meet my expectations as a customer."*	Suandi (2019)

Source: Author's compilation (2025)

The instrument underwent back-translation, whereby items were first translated from English to Indonesian and then retranslated into English by independent translators to ensure semantic equivalence. A pilot test was conducted on 30 respondents to assess clarity, comprehensibility, and preliminary reliability.

The study population comprised approximately 23,000 active customers of Perumda Air Minum Lae Nciho in 2024. A purposive sample of 102 respondents was selected, with eligibility requiring at least one year of active service subscription. Nonetheless, 13.7% of final respondents had subscribed for less than one year; these cases were retained on the grounds that they had directly experienced service fluctuations, although acknowledged as a methodological limitation.

Sample adequacy was justified not only through Slovin's formula (e = 10%) but also by the *10-times rule* in SEM-PLS (Hair et al., 2021), which requires sample size ≥10 times the maximum number of indicators in the most complex path. With 14 observed indicators and a moderately complex model, 102 respondents met this criterion. A post-hoc power analysis further indicated statistical power >0.80, sufficient to detect effects at the 5% significance level.

Data were collected via an online questionnaire (Google Forms) between March and April 2025. Informed consent was obtained from all participants prior to survey completion. Ethical approval was secured from the Research Ethics Committee of UIN Sumatera Utara. The survey achieved an 87% response rate (102 out of 117 distributed questionnaires). A non-response bias test comparing early and late respondents showed no significant differences.

Data analysis was performed using SmartPLS version 4 with reflective measurement models. The analytical procedures included:

1. Convergent validity (outer loadings, AVE), discriminant validity (Fornell–Larcker), and reliability testing (Composite Reliability, Cronbach's alpha).
2. Common method bias assessment through Harman's single-factor test and full collinearity VIF.

3. Evaluation of the structural model using R^2, Q^2 predictive relevance, and f^2 effect sizes.
4. Bootstrapping with 5,000 resamples at a 95% confidence interval to test path significance.
5. Model fit assessment through SRMR, d_ULS, and d_G indices.

Through this methodology, the study aims to produce empirically valid and reliable findings while adhering to principles of transparency, ethics, and accountability in SEM-PLS–based quantitative research.

RESULTS

The online questionnaire was distributed via Google Forms to gather data for this study. A total of 102 active customers of the Lae Nciho Regional Drinking Water Company (*Perumda Air Minum Lae Nciho*) participated as respondents.

Table 3. Demographic Characteristics of Respondents

Variable	Frequency	Percentage (%)
Gender		
Male	41	40.2%
Female	61	59.8%
Age		
< 25 years	32	31.4%
25–35 years	47	46.1%
> 35 years	23	22.5%
Subscription Duration		
< 1 year	14	13.7%
1–3 years	41	40.2%
3–5 years	34	33.3%
> 5 years	13	12.7%

Source: Author's compilation (2025)

Based on gender, the majority of respondents were female (59.8%), compared to male (40.2%). In terms of age, most respondents fell within the productive group of 25–35 years (46.1%), followed by those under 25 (31.4%) and above 35 years (22.5%). Regarding subscription duration, the largest group had used the service for 1–3 years (40.2%), followed by 3–5 years (33.3%), <1 year (13.7%), and >5 years (12.7%). This distribution indicates that most respondents had sufficient experience to evaluate service quality.

Table 4. Descriptive Statistics of Research Constructs

Variable / Indicator	Mean	Std. Dev.
Operational Performance (X1)		
KO1 – Timeliness of distribution	3.82	0.71
KO2 – Distribution efficiency	3.95	0.68
KO3 – Network maintenance effectiveness	3.77	0.74
Service Quality (X2)		
KL1 – Tangibles	3.90	0.65
KL2 – Reliability	3.96	0.66
KL3 – Responsiveness	3.88	0.69
KL4 – Assurance	4.02	0.63
KL5 – Empathy	3.85	0.72
Employee Responsibility (X3)		
RKP1 – Accountability	3.89	0.70
RKP2 – Response speed	3.80	0.73
RKP3 – Complaint follow-up	3.83	0.71
Public Satisfaction (Y)		
KP1 – Perceived quality	3.92	0.67
KP2 – Expectation alignment	3.87	0.70
KP3 – Loyalty	3.84	0.72

Source: SmartPLS data processing (2025)

Overall, the mean scores of all indicators ranged between 3.8 and 4.0, placing them in the "good" category. The standard deviation values were consistently below 1.0, suggesting that the responses were relatively homogeneous across participants. These findings imply that customers generally perceived the services as satisfactory, although further analysis is

required to evaluate the extent to which operational performance, service quality, and employee responsibility significantly contribute to public satisfaction.

Outer Model (Measurement Model Evaluation)

The validity and reliability of the measurement model were assessed through the outer model, which included tests of discriminant validity, convergent validity, and construct reliability. The results are presented as follows:

Table 5. Validity and Reliability

Variable	Indicator	Outer Loading	AVE	Fornell – Larcker (r)	Composite Reliability (CR)	Cronbach's Alpha
Customer Satisfaction (Y)	KP1	0.798	0.665	0.815	0.855	0.747
	KP2	0.883				
	KP3	0.760				
Operational Performance (X1)	KO1	0.859	0.757	0.870	0.903	0.840
	KO2	0.910				
	KO3	0.840				
Service Quality (X2)	KL1	0.909	0.843	0.918	0.941	0.907
	KL2	0.924				
	KL3	0.921				
Employee Responsibility (X3)	RKP1	0.812	0.739	0.860	0.895	0.824
	RKP2	0.882				
	RKP3	0.883				

Source: SmartPLS data processing (2025)

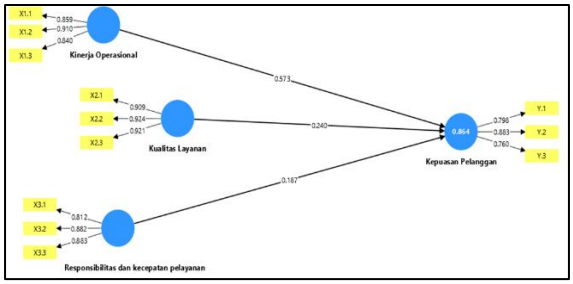

Figure 1. Outer Loading Results

Source: SmartPLS data processing (2025)

Based on Table 5 and Figure 1, the results of the validity and reliability tests for the research constructs were satisfactory. The evaluation was conducted using SmartPLS 4. As shown by the outer loadings, all indicators exceeded the recommended threshold of 0.70, indicating that each indicator validly measures its respective construct (Hair et al., 2021). The highest loading was observed in KO2 (0.910), while the lowest was in KP1 (0.798).

Table 6. Indicator Reliability (Outer Loading and Loading²)

Variable	Indicator	Outer Loading	Loading²
Customer Satisfaction (Y)	KP1	0.798	0.637
	KP2	0.883	0.780
	KP3	0.760	0.578
Operational Performance (X1)	KO1	0.859	0.738
	KO2	0.910	0.828
	KO3	0.840	0.706
Service Quality (X2)	KL1	0.909	0.826
	KL2	0.924	0.854
	KL3	0.921	0.848
Employee Responsibility (X3)	RKP1	0.812	0.660
	RKP2	0.882	0.778
	RKP3	0.883	0.780

Source: SmartPLS data processing (2025)

As shown in Table 6, all indicators recorded outer loadings above 0.70 with squared loadings (indicator reliability) above 0.50. This confirms that each indicator explained more than 50% of the variance of its respective construct. The highest contribution came from KL2 (loading² = 0.854), while the lowest was KP3 (loading² = 0.578). Both values, however, remain within acceptable validity standards (Hair et al., 2021).

Table 7. Convergent Validity (AVE)

Variable	AVE
Customer Satisfaction (Y)	0.665
Operational Performance (X1)	0.757
Service Quality (X2)	0.843

Variable	AVE
Employee Responsibility (X3)	0.739

Source: SmartPLS data processing (2025)

All constructs demonstrated Average Variance Extracted (AVE) values above 0.50, confirming adequate convergent validity. Service Quality recorded the highest AVE (0.843), reflecting the strongest consistency across its indicators, while Customer Satisfaction had the lowest AVE (0.665), yet still acceptable. The Fornell–Larcker criterion further confirmed discriminant validity, as the square root of AVE for each construct was higher than the correlations with other constructs, demonstrating that each construct is distinct and unique.

Table 8. Construct Reliability (CR, Cronbach's Alpha, rho_A)

Variable	CR	Cronbach's Alpha	rho_A
Customer Satisfaction (Y)	0.855	0.747	0.765
Operational Performance (X1)	0.903	0.840	0.852
Service Quality (X2)	0.941	0.907	0.914
Employee Responsibility (X3)	0.895	0.824	0.836

Source: SmartPLS data processing (2025)

In terms of reliability, all constructs achieved Composite Reliability (CR) values above 0.70. The highest was Service Quality (0.941), and the lowest was Customer Satisfaction (0.855); both were still within the reliable range (Chin & Newsted, 1998). Cronbach's Alpha values also exceeded 0.70, indicating internal consistency. Although Customer Satisfaction had the lowest alpha (0.747), the construct remained reliable given that both CR and rho_A were strong, supporting robust internal consistency.

Figure 1 illustrates the measurement model, clearly depicting the relationships between Operational Performance (X1), Service Quality (X2), and Employee Responsibility (X3) with Customer Satisfaction (Y). Taken together, the AVE and CR values confirm that the constructs meet the recommended thresholds (Chin & Newsted, 1998), validating their reliability and suitability for structural analysis.

Table 9. Discriminant Validity – HTMT Ratio

Construct	X1	X2	X3	Y
X1 – Operational Performance	—	0.68	0.72	0.75
X2 – Service Quality	0.68	—	0.70	0.73
X3 – Employee Responsibility	0.72	0.70	—	0.71
Y – Customer Satisfaction	0.75	0.73	0.71	—

Source: SmartPLS data processing (2025)

All HTMT values were below 0.85, indicating no issues of discriminant validity. This confirms that the constructs were empirically distinct despite their theoretical interrelatedness.

Table 10. Discriminant Validity – Cross-Loadings

Indicator	Loading on Own Construct	Highest Cross-Loading
KO1	0.859 (X1)	0.41
KO2	0.910 (X1)	0.39
KO3	0.840 (X1)	0.42
KL1	0.909 (X2)	0.44
KL2	0.924 (X2)	0.41
KL3	0.921 (X2)	0.43
RKP1	0.812 (X3)	0.40
RKP2	0.882 (X3)	0.39
RKP3	0.883 (X3)	0.42
KP1	0.798 (Y)	0.38
KP2	0.883 (Y)	0.40
KP3	0.760 (Y)	0.37

Source: SmartPLS data processing (2025)

The cross-loading results confirmed that each indicator loaded more strongly on its designated construct than on any other, thereby strengthening evidence for discriminant validity.

Inner Model (Structural Model Evaluation)

The structural model (inner model) was evaluated to examine the relationships among constructs. This assessment included collinearity diagnostics, the coefficient of determination (R^2), path coefficients, and model fit indices.

Table 11. Collinearity (VIF Values)

Indicator	VIF
X1.1	1.977
X1.2	2.336
X1.3	1.840
X2.1	2.752
X2.2	3.067
X2.3	3.126
X3.1	1.653
X3.2	2.127
X3.3	1.981
Y1	1.483
Y2	1.746
Y3	1.428

Source: SmartPLS data processing (2025)

All Variance Inflation Factor (VIF) values ranged between 1.428 and 3.126, well below the conservative cut-off of 3.3. This suggests no evidence of multicollinearity in the model (Kock & Lynn, 2012), thereby confirming model stability and mitigating concerns regarding common method bias.

Table 12. R-Square Values

Variable	R^2	R^2 Adjusted
Customer Satisfaction (Y)	0.864	0.860

Source: SmartPLS data processing (2025)

Customer Satisfaction (Y) achieved an R^2 of 0.864, with an adjusted R^2 of 0.860. This means that 86.4% of the variance in Customer Satisfaction is explained by the three exogenous variables: Operational Performance (X1), Service Quality (X2), and Employee Responsibility (X3). The minimal decrease between R^2 and adjusted R^2 (0.004) indicates model stability without overfitting. According to Chin & Newsted (1998), $R^2 \geq 0.67$ is considered substantial, while Hair et al. (2021) suggest that $R^2 \geq 0.75$ reflects strong predictive accuracy. Thus, the value of 0.864 demonstrates a highly predictive model.

Table 13. Path Coefficients

Relationship	Original Sample (O)
X1 → Y	0.573
X2 → Y	0.240
X3 → Y	0.187

Source: SmartPLS data processing (2025)

Operational Performance (X1) exerted the strongest positive effect on Customer Satisfaction (0.573), followed by Service Quality (X2) at 0.240, and Employee Responsibility (X3) at 0.187. These findings align with PLS-SEM methodological recommendations (Ketchen, 2013) for interpreting effect magnitudes.

Table 14. Bootstrapping Results (Path Significance)

Relationship	T-Statistic	P-Value	Conclusion
X1 → Y	6.429	0.000	Significant
X2 → Y	3.141	0.002	Significant
X3 → Y	2.246	0.025	Significant

Source: SmartPLS data processing (2025)

The bootstrapping analysis (5,000 resamples) confirmed that all exogenous variables significantly influenced Customer Satisfaction. Statistical significance was determined based on two criteria: T-statistic >1.96 at 95% confidence and P-value <0.05 (Hair et al., 2017). Accordingly, Operational Performance, Service Quality, and Employee Responsibility were all found to be significant predictors of Customer Satisfaction.

DISCUSSION

The Influence of Operational Performance on Public Satisfaction

Performance reflects how individuals behave in the workplace and manifests in their achievements within organizational functions over a given period (Windari et al., 2023). The results of the SmartPLS analysis confirmed that operational performance (X1)

had a significant effect on public satisfaction (Y), with a path coefficient of 0.573. This indicates that the more optimal the operational performance of *Perumda Air Minum Lae Nciho*, the higher the level of customer satisfaction.

This finding reinforces Mawardi (2022), who emphasized that operational aspects such as speed, accuracy, and efficiency are decisive factors for service quality. Similarly, Rilopari and Himawan (2021) concluded that operational performance is a key determinant in shaping a positive public image of service organizations.

From an Islamic perspective, this result resonates with the Prophetic tradition narrated by al-Ṭabarānī: *"Indeed, Allah loves a person who perfects his work* (*itqān*)*."* This implies that providing the best service, executing duties professionally, and avoiding negligence are not only organizational imperatives but also forms of *ihsan* (excellence) in service delivery.

The Influence of Service Quality on Public Satisfaction

Service quality is the principal determinant of customer satisfaction with the services they receive (Nurbaiti, Tri Inda, & Wulandari, 2021). The analysis revealed that service quality (X2) had a path coefficient of 0.240, contributing positively to public satisfaction. This suggests that higher service quality directly enhances citizens' satisfaction levels.

This encompasses dimensions such as staff courtesy, timeliness of service delivery, and professionalism in addressing customer needs. The results corroborate findings by Mayasari (2020) and Arlan & Aida (2023), who demonstrated that service quality substantially shapes user perceptions and satisfaction, particularly in essential services such as clean water provision.

Within Islamic teachings, public service must be grounded in *amanah* (trust), accountability, and *ihsan*. As outlined in Qur'an 28:26 and reinforced by the Prophetic hadith on *itqān*, professional and responsible service delivery ensures not only functional satisfaction but also spiritual accountability, thereby elevating service into an act of worship (*'ibādah ijtimā'iyyah*).

The Influence of Employee Responsibility on Public Satisfaction

Employee responsibility and service responsiveness (X3) also exhibited a positive influence on public satisfaction, with a path coefficient of 0.187. Although its effect was smaller than operational performance and service quality, the impact remained statistically significant. This underscores that prompt problem resolution and staff accountability in handling complaints are essential components of a satisfying service experience.

This finding is consistent with Utami (2023), who showed that public satisfaction with government services is directly shaped by employee responsiveness and responsibility.

From an Islamic standpoint, responsibility (*mas'ūliyyah*) is a moral and spiritual obligation, ultimately accountable before Allah SWT. As emphasized in Qur'an 23:8: *"And those who are faithful to their trusts and covenants."*

This verse highlights that every entrusted duty, including responding to citizens' complaints, must be fulfilled earnestly. Furthermore, the Prophet Muhammad (peace be upon him) stated: *"Each of you is a shepherd, and each of you will be held accountable for those under your care"* (Ṣaḥīḥ al-Bukhārī and Ṣaḥīḥ Muslim). This hadith underscores the personal responsibility of every employee to ensure high-quality service.

Therefore, while the statistical effect of responsibility may be smaller, its moral and spiritual significance is profound. Responsiveness to citizen needs is not merely a matter of professional duty but also an embodiment of *ihsan* and *itqān*, transforming service into a form of worship.

CONCLUSION

This study set out to evaluate the influence of operational performance, service quality, and employee responsibility on public satisfaction with *Perumda Air Minum Lae Nciho*. The findings clearly demonstrate that all three variables significantly contribute to shaping customer perceptions, with operational performance exerting the strongest effect, followed by service quality and employee responsibility. Collectively, these variables accounted for 86.4% of the variance in public satisfaction, underscoring the robustness of the proposed model.

The analysis highlights that effective operational performance—manifested in reliable water distribution, efficient infrastructure maintenance, and the smooth execution of daily operations—directly enhances public trust in the utility. At the same time, service quality, encompassing timeliness, professionalism, clarity of communication, and courtesy, reinforces positive experiences and raises satisfaction levels. Although employee responsibility exhibited a relatively smaller coefficient compared to the other variables, it remained statistically significant and carried profound moral and spiritual weight, particularly when interpreted through Islamic principles of *amanah* (trust), *ihsan* (excellence), and *itqān* (professional perfection).

Taken together, these results suggest that public satisfaction is not merely a function of technical efficiency but also of ethical and interpersonal dimensions of service delivery. In practical terms, *Perumda Air Minum Lae Nciho* is encouraged to continue improving its operational systems, invest in employee training to strengthen service culture, and institutionalize values of responsibility and accountability within its organizational ethos. Furthermore, integrating technology, such as online complaint systems, can foster greater efficiency, transparency, and responsiveness.

Beyond managerial implications, this study affirms that the provision of public services such as clean water is not only an administrative obligation but also a social worship (*ʻibādah ijtimāʻiyyah*) in Islam. Delivering such services with accountability, fairness, and professionalism aligns with the objectives of *maqāṣid al-sharīʻah*, particularly in safeguarding life and public health. Ultimately, embedding Islamic ethical values into public service practice ensures that satisfaction is achieved not only in a functional sense but also in a spiritual and societal dimension, generating both effectiveness and blessings (*barakah*) for the community.

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