

The Influence of Employee Competence and the Utilization of Information Technology on the Quality of Public Services at the Aceh Besar Public Service Mall

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Abstract

Bureaucratic challenges in Aceh Besar continue to hamper the achievement of optimal service quality. This study aims to analyze the influence of employee competence and the utilization of information technology on the quality of public services at the Public Service Mall (MPP) of Aceh Besar Regency, Aceh Province, Indonesia. Data were collected during January to March 2026 from 100 public service users selected using accidental sampling. The methodology employed was a quantitative causal-associative approach, utilizing multiple linear regression analysis with SPSS 25 software. The results indicate that, partially, employee competence has a positive and significant influence on service quality ($\beta = 0.425$, sig. = 0.005). The utilization of information technology also exerts a positive and significant influence ($\beta = 1.146$, sig. = 0.000), emerging as the most dominant factor in improving service quality. Simultaneously, these two variables contribute 80.9% to the variation in public service quality. These findings confirm that the integration of human resource competence and information technology serves as a strategic foundation for enhancing public service delivery, providing empirical evidence for policy development in newly established integrated service institutions.

Keywords: *Employee Competence; Utilization of Information Technology; Service Quality; Public Services; Service Digitalization.*

Introduction

The Indonesian government is currently prioritizing the transformation of public services to deliver more effective, efficient, and high-quality governance.

Referring to Law Number 25 of 2009, public service is defined as a series of activities involving the provision of goods, services, or administrative actions by state providers for every citizen, ensuring equal access without discrimination and supported by a fair and inclusive legal framework integrated into digitalization efforts to enhance transparency and civic participation (Sajidah et al., 2024). High-quality public service often termed service excellence focuses on fulfilling established quality standards through processes that are simple, rapid, affordable, and accountable (Salma & Nawangsari, 2022). In an effort to facilitate public access, the Indonesian government enacted Presidential Regulation Number 89 of 2021 to establish Public Service Malls (MPP), which integrate services from governmental and non-governmental sectors into a centralized location, eliminating illegal fees while ensuring speed, ease of access, affordability, security, and comfort. One such implementation is the Aceh Besar MPP, which since 2023 has consolidated 27 agencies to provide comprehensive administrative and licensing services (Khairinnisa et al., 2023; Setyatama, 2025).

Despite these structural advances, several operational challenges persist at the Aceh Besar MPP. Issues surrounding personnel availability during service hours, bureaucratic efficiency, and cross-institutional coordination remain unresolved. The competency of personnel regarding soft skills and procedural literacy serves as a vital determinant in fostering high-quality public interaction, as government officials must serve as the primary catalysts possessing the requisite competence to administer contemporary public services (Faizatin et al., 2025). Simultaneously, in the current digital era, public demand for instantaneous and transparent services has become an imperative. Contemporary digital platforms have evolved into a primary foundation that strengthens connectivity among various actors to yield efficient, transparent, and accountable service delivery (Casalini & Zavolokina, 2025). However, phenomena such as prolonged queues and the need for enhanced staff

responsiveness indicate that the integration of technology and competence has yet to reach an optimal level in Aceh Besar.

This condition is further supported by the Resource-Based View (RBV) theory, which posits that service quality excellence is highly contingent upon an institution's internal resources both tangible assets such as information technology infrastructure, and intangible assets including employee knowledge, skills, and professional attitudes (Septiandika et al., 2025). Strategically, the integration of human resource competence and information technology therefore becomes a critical determinant in improving public service quality, as advanced technology cannot function optimally without the support of skilled personnel proficient in its application.

While research on Public Service Malls has been extensively conducted, studies that simultaneously integrate employee competence and information technology (IT) utilization within the specific regional context of Aceh Besar remain limited. Unlike previous studies that examined these variables in isolation (Ardiansyah, 2021; Hikma et al., 2024), this study addresses this gap by simultaneously testing both variables in a region with distinct socio-demographic characteristics and a relatively recently established MPP (2023), making empirical investigation particularly relevant.

Therefore, this research aims to analyze the influence of employee competence and information technology utilization on the quality of public services at the Aceh Besar MPP. The findings are expected to provide an empirical contribution while serving as a strategic consideration for local governments in formulating data-driven policies, and contributing to the broader development of public service management literature particularly in understanding the behaviors and expectations of a society that is increasingly reliant on digital systems.

Literature Review

Employee competence is a pivotal element in enhancing employee performance, defined as a fundamental attribute of an individual concerning their capacity to execute specific tasks and constitutes a core characteristic that enables an individual to achieve superior performance within a professional context (Harwin, 2025). Employee competence plays a pivotal role in determining organizational performance, shaped by internal factors such as talent, ability, and motivation; external factors including education, training, and professional experience; and organizational factors such as corporate culture, leadership, and work systems (Wijaya & Rahmawati, 2025). Pursuant to Law Number 5 of 2014, State Civil Servants (ASN) are required to possess high levels of competence to execute governmental duties effectively, making competence development a key factor in enhancing organizational productivity. Furthermore, employee competence is defined as fundamental individual characteristics encompassing knowledge, skills, and attitudes that are causally related to outstanding job performance or effectiveness, signifying the capacity to perform or complete specific tasks by leveraging skills and knowledge, underpinned by the professional attitudes expected within the respective role (Martini et al., 2020).

Information Technology is defined as the integration of knowledge, procedures, and instruments aimed at creating and optimizing both goods and services, categorized into three primary functions: automation to replace manual tasks, augmentation to reinforce human roles through information provision, and restructuring to transform human functions for optimal performance. In a comprehensive sense, it represents the synergy between hardware, software, and "userware" (human resources) to manage data functionally (Zai et al., 2023). Its implementation facilitates more efficient organizational communication, drives increased productivity, and accelerates data management to ensure timely

dissemination, creating new opportunities and empowering organizations to augment their overall institutional capacities (Perangin-Angin et al., 2025). Pursuant to Government Regulation No. 56 of 2005, local governments are encouraged to leverage information technology to optimize institutional performance, though the quality of human resources remains the pivotal factor in determining the success of digital transformation within government bodies (Zai et al., 2023).

Public service quality aims to provide satisfaction and deliver services that align with societal expectations or overall service standards, as the government must prioritize quality that corresponds to public needs and aspirations (Rahmadana et al., 2020). Public service is a fundamental right of every citizen, with human resources representing the primary component for achieving organizational success, necessitating high-quality personnel in sufficient numbers to deliver service excellence (Mirza et al., 2025). Governed by Law Number 25 of 2009, services must be delivered promptly, accessibly, and without discrimination, with streamlined procedures and competent personnel demonstrating professionalism and integrity. Service quality is measured through five dimensions: (1) Tangibles, pertaining to the availability of physical facilities; (2) Reliability, referring to consistency and dependability in service delivery; (3) Responsiveness, denoting the promptness and accuracy of staff; (4) Assurance, relating to the ability of employees to build trust; and (5) Empathy, characterized by providing sincere and individualized attention to customers and is deemed high-quality if it fulfills all five indicators without deficiency (Aini, 2018; Nuraini & Apriani, 2024).

The Public Service Mall (MPP) is an integrated service innovation established under Presidential Regulation No. 89 of 2021, designed to consolidate services from various governmental and non-governmental sectors under one roof, prioritizing speed, ease of access, affordability, security, and comfort while

eliminating bureaucratic fragmentation (Khairinnisa et al., 2023). As a relatively new institution in Aceh Besar established in 2023 with 27 agencies consolidated the MPP represents a unique operational context where understanding the factors that drive service quality is particularly relevant, as its operational maturity differs from MPPs in more established regions, making empirical investigation especially significant (Setyatama, 2025).

This study is grounded in the Resource-Based View (RBV) theory, which posits that an organization's competitive advantage and performance quality are primarily determined by its internal resources—both tangible assets such as information technology infrastructure, and intangible assets such as employee knowledge, skills, and professional attitudes (Septiandika et al., 2025). Empirically, employee competence has been proven to exert a positive and significant influence on public service quality (Ardiansyah, 2021), while information technology utilization has similarly demonstrated a positive impact on service quality improvement (Hikma et al., 2024). Furthermore, personnel competency and IT utilization are two interconnected elements where advanced technology cannot function optimally without the support of skilled personnel proficient in its application and when examined simultaneously, both variables significantly and positively affect service improvements, confirming them as critical determinants of public service quality (Septiandika et al., 2025).

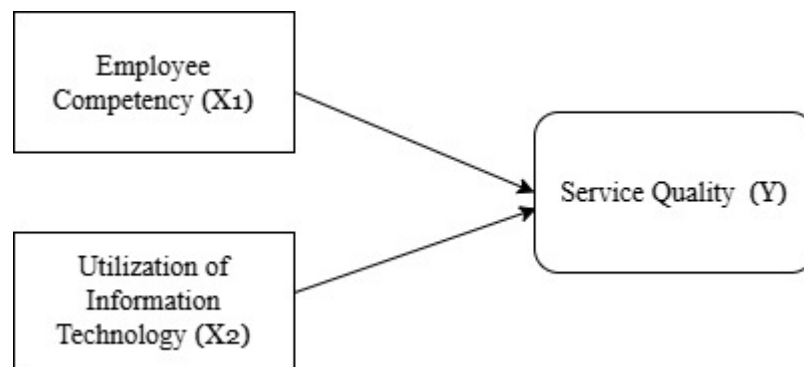


Figure 1. Research Model

Based on the theoretical review presented above, the conceptual framework of this study is constructed as follows. Employee Competence (X1) and Information Technology Utilization (X2) are posited as independent variables that independently and jointly influence Public Service Quality (Y) at the Aceh Besar Public Service Mall. This framework is grounded in the Resource-Based View (RBV) theory, which emphasizes that both human and technological resources are key determinants of organizational performance and service delivery excellence. Based on the theoretical framework and the review of relevant literature presented above, the following hypotheses are proposed to be empirically tested in this study:

H1: Employee competence has a positive effect on service quality.

H2: Information technology utilization has a positive effect on service quality.

H3: Employee competence and information technology utilization simultaneously affect service quality.

Research Methods

This study was conducted at the Public Service Mall (Mal Pelayanan Publik/MPP) of Aceh Besar Regency, located in Aceh Province, Indonesia. The MPP Aceh Besar was selected as the research site as it represents one of the most recently established integrated service centers in Aceh, having been in operation since 2023, with 27 agencies consolidated under one service roof. Data collection was carried out during January until March 2026. This study employs a quantitative approach with a causal-associative research design, aiming to analyze and demonstrate the causal relationship between the independent variables—Employee Competence (X1) and the Utilization of Information Technology (X2)—and the dependent variable, Public Service Quality (Y), at the Aceh Besar MPP.

The population of this study comprises all service users at the Aceh Besar MPP who have utilized its facilities. Given the dynamic nature of the population, the Cochran formula was employed to determine the sample size for a population of unknown parameters (Asenahabi & Ikoha, 2023). With a 95% confidence level and a 10% margin of error, a minimum sample size of 96 respondents was required, consequently rounded to 100 respondents to enhance data accuracy. The sampling technique employed is accidental sampling, with respondents selected based on the following inclusion criteria: (1) individuals who had completed a service transaction at any institutional counter within the MPP, (2) a minimum age of 17 years, and (3) a willingness to complete the questionnaire voluntarily.

Primary data were collected through structured questionnaires developed based on variable indicators measured using a 5-point Likert scale, ranging from 'Strongly Disagree' (score 1) to 'Strongly Agree' (score 5). The Employee Competence variable is measured through the dimensions of knowledge, skills, and attitudes. Information Technology Utilization is assessed via ease of access, system reliability, and efficiency. Service Quality is evaluated using the dimensions of Tangibles, Reliability, Responsiveness, Assurance, and Empathy. The research instrument consists of 43 statement items: 11 items for Employee Competence, 12 items for Information Technology Utilization, and 20 items for Service Quality.

Data analysis was performed using SPSS 25 through a systematic series of stages. Instrument testing comprised validity testing via Pearson Correlation and reliability testing using Cronbach's Alpha (Forester et al., 2024; Rosita et al., 2021). Prior to hypothesis testing, classical assumption tests—including normality using the Kolmogorov-Smirnov method ($p > 0.05$), heteroscedasticity using the Glejser method (sig. > 0.05), and multicollinearity using the Variance Inflation Factor ($VIF < 10$) were conducted as fundamental prerequisites to ensure an

unbiased regression model (Mardiatmoko, 2020; Tahitu et al., 2024; Yaldi et al., 2022). The core analysis employed multiple linear regression through the model equation $Y = a + \beta_1X_1 + \beta_2X_2 + e$, followed by hypothesis testing consisting of the partial t-test (H1 and H2), the simultaneous F-test (H3), and the coefficient of determination (R^2) analysis, all at a significance level of $\alpha = 0.05$ (Dewi & Fitriani, 2021; Marnilin et al., 2023).

Table 1. Operationalization of Variables

No	Variable	Variable Definition	Dimensions	Indicator	Scale
1	Employee Competency X1	The ability to execute or complete a task or job by leveraging skills and knowledge, underpinned by the work attitudes expected for that specific role (Martini et al., 2020).	Skills	Collaborative Teamwork Proficiency	Likert
				Problem-Solving Skills	
				Effective Communication Skills	
			Knowledge	Comprehensive Understanding of Occupational Responsibilities	
				Domain-Specific Knowledge Mastery	
				Proficiency in Standard Operating Procedures (SOPs)	
			Attitude	Punctuality and Time Management	
				Excellence in Task Execution	

				Adherence to Organizational Regulations Integrity, Objectivity, and Accountability	
				Accessibility of Service Counters	
			User-Friendliness	Availability of Service Information	
			System Reliability	Network Stability	
2	Utilization of Information Technology X2	The integration of knowledge, procedures, and instruments aimed at creating and optimizing products and services (Zai et al., 2023).	Data Privacy	Data Privacy Protection	Likert
			Information Transparency	Service Completion Speed	
			Document Digitization	Factual Information Reduction of Physical Documentation	
				Hygiene and maintenance of the service environment	
				Availability of adequate waiting facilities	
3	Service Quality (Y)	Providing satisfaction and services that align with public expectations or overall service delivery [15].	Tangibles	Security and safety of the premises	Likert
				Software up to date	
			Reliability	Demonstrating interpersonal courtesy and	

		professional empathy
		Ensuring the accuracy and reliability of service delivery
		Responsiveness and efficiency in service processing
		Consultative Engagement
	Responsiveness	Public Trust and Assurance
		Service Promptness
		Employee Knowledgeability
	Assurance	Professional Courtesy
		Security Assurance
		Demonstrated Care
	Empathy	Authentic Personal Attention
		Customer Needs Recognition

Source: Researcher's analysis (2026)

Results and Discussion

The characteristics of the respondents in this study were analyzed based on gender, age, occupation, types of services accessed at the Public Service Mall (MPP), and frequency of visits. The presentation of this profile aims to illustrate the distribution of respondents while simultaneously strengthening the interpretation of the research findings.

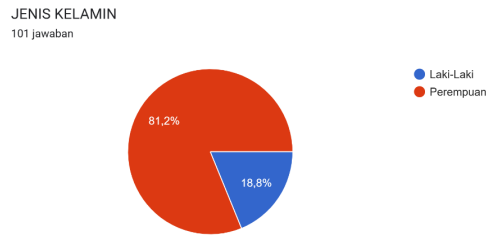


Figure 2. Respondents' Gender

Data analysis from the questionnaire reveals that 81.2% of the participants are female, while 18.8% are male, out of a total of 101 respondents. The predominance of female respondents indicates that women play a more active role in accessing services at the Aceh Besar Public Service Mall (MPP), particularly in handling administrative matters related to family and social requirements.

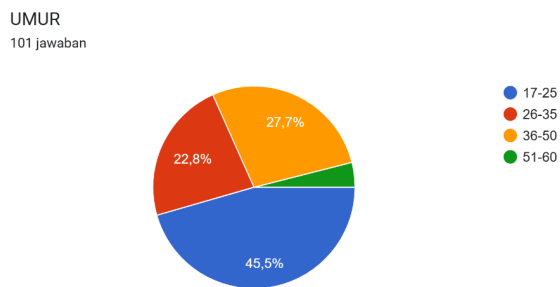


Figure 3. Respondents' Age

In terms of age distribution, the 17–25 age group predominates at 45.5%, followed by those aged 36–50 (27.7%) and 26–35 (22.8%), while the 51–60 age group represents the smallest proportion. These findings indicate that the users of the Public Service Mall (MPP) are dominated by the productive age population, particularly the younger generation who tend to be more adaptive toward modern service systems.

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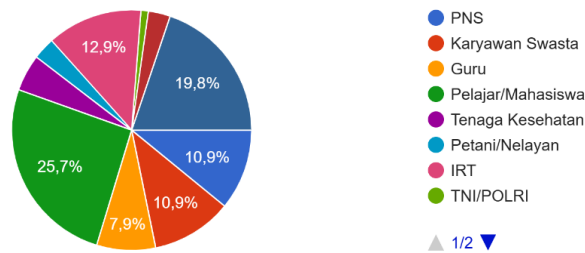


Figure 4. Respondents' Occupation

Regarding occupational background, students constitute the largest group of respondents at 25.7%, followed by civil servants (PNS) at 19.8% and housewives at 12.9%. Private sector employees and farmers/fishermen account for 10.9% each, while teachers represent 7.9%, with other professions comprising relatively smaller proportions. This distribution indicates that while the Public Service Mall (MPP) serves a diverse range of social strata, it is primarily utilized by the educated population and civil servants who possess higher administrative requirements.

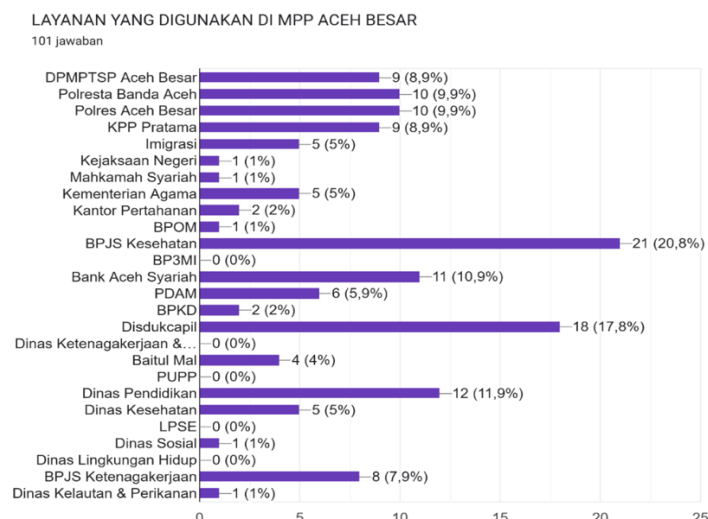


Figure 5. Services Utilized at the Public Service Mall (MPP)

Regarding the types of services accessed, BPJS Health is the most frequently utilized at 20.8%, followed by the Population and Civil Registry Office (Disdukcapil) at 17.8%, the Education Office at 11.9%, and Bank Aceh Syariah at 10.9%. Meanwhile, other services such as police and taxation are utilized in smaller proportions, with some services remaining completely unutilized. This condition indicates that the primary public demand at the Public Service Mall (MPP) focuses on essential services, specifically population administration, healthcare, and education.

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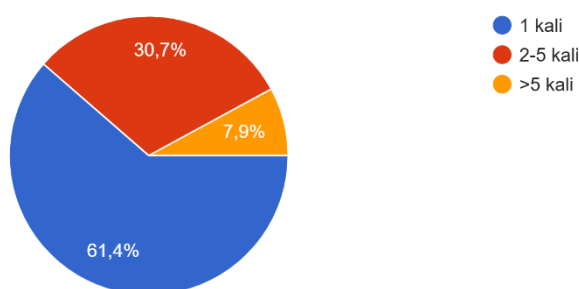


Figure 6. Frequency of Visits

Regarding the frequency of visits, the majority of respondents reported a single visit (61.4%), followed by 2–5 visits (30.7%), and more than 5 visits (7.9%). This distribution indicates that the utilization of the Public Service Mall (MPP) tends to be incidental, occurring primarily when specific administrative needs arise, rather than being utilized as a routine service.

Validity and Reliability

Based on Table 2, the validity test results indicate that all 43 statement items for Employee Competence, Information Technology Utilization, and

Service Quality yield r-values exceeding the critical r-table value of 0.1956, with Employee Competence ranging from 0.782–0.884, Information Technology Utilization from 0.704–0.899, and Service Quality from 0.756–0.926. Consequently, all items are declared valid (Forester et al., 2024; Rosita et al., 2021).

Table 1. Result of the Validity Test

No	Variables	Item Question	Mark rhitung	Mark rtable	Information
1.	Employee Competency	A1	0.793	$\geq 0,1956$	Valid
		A2	0.867	$\geq 0,1956$	Valid
		A3	0.870	$\geq 0,1956$	Valid
		A4	0.884	$\geq 0,1956$	Valid
		A5	0.824	$\geq 0,1956$	Valid
		A6	0.823	$\geq 0,1956$	Valid
		A7	0.782	$\geq 0,1956$	Valid
		A8	0.859	$\geq 0,1956$	Valid
		A9	0.876	$\geq 0,1956$	Valid
		A10	0.863	$\geq 0,1956$	Valid
		A11	0.809	$\geq 0,1956$	Valid
2.	Information Technology	B1	0.783	$\geq 0,1956$	Valid
		B2	0.765	$\geq 0,1956$	Valid
		B3	0.777	$\geq 0,1956$	Valid
		B4	0.704	$\geq 0,1956$	Valid
		B5	0.818	$\geq 0,1956$	Valid
		B6	0.832	$\geq 0,1956$	Valid
		B7	0.855	$\geq 0,1956$	Valid
		B8	0.855	$\geq 0,1956$	Valid
		B9	0.805	$\geq 0,1956$	Valid

		B10	0.803	$\geq 0,1956$	Valid
		B11	0.899	$\geq 0,1956$	Valid
		B12	0.854	$\geq 0,1956$	Valid
3.	Service Quality	C1	0.849	$\geq 0,1956$	Valid
		C2	0.827	$\geq 0,1956$	Valid
		C3	0.843	$\geq 0,1956$	Valid
		C4	0.847	$\geq 0,1956$	Valid
		C5	0.857	$\geq 0,1956$	Valid
		C6	0.875	$\geq 0,1956$	Valid
		C7	0.836	$\geq 0,1956$	Valid
		C8	0.913	$\geq 0,1956$	Valid
		C9	0.926	$\geq 0,1956$	Valid
		C10	0.922	$\geq 0,1956$	Valid
		C11	0.886	$\geq 0,1956$	Valid
		C12	0.793	$\geq 0,1956$	Valid
		C13	0.894	$\geq 0,1956$	Valid
		C14	0.905	$\geq 0,1956$	Valid
		C15	0.905	$\geq 0,1956$	Valid
		C16	0.897	$\geq 0,1956$	Valid
		C17	0.892	$\geq 0,1956$	Valid
		C18	0.871	$\geq 0,1956$	Valid
		C19	0.840	$\geq 0,1956$	Valid
		C20	0.756	$\geq 0,1956$	Valid

Source: Processed primary data (2026)

Based on Table 3, all variables yield Cronbach's Alpha values exceeding the 0.70 threshold Employee Competence (0.959), Information Technology Utilization (0.951), and Service Quality (0.982) demonstrating an exceptionally high level of reliability (Forester et al., 2024; Rosita et al., 2021). Consequently, the research instrument is deemed both valid and reliable for further analysis.

Table 2. Reliability Test Results

No	Variables	Amount Item	Alpha Value	Reliability Limits	Information
1.	Employee Competency	11	0.959	0,70	Valid
2.	Information Technology	12	0.951	0,70	Valid
3.	Service Quality	20	0.982	0,70	Valid

Source: Processed primary data (2026)

Classical Assumption Test

The classical assumption tests confirmed that all prerequisites for regression analysis were met. The Kolmogorov-Smirnov normality test yielded a significance value of 0.132 and Shapiro-Wilk 0.105, both exceeding 0.05, confirming that the residual data are normally distributed (Fig. 7). The Glejser heteroscedasticity test produced p-values of 0.309 and 0.123 for X1 and X2 respectively, both exceeding 0.05, indicating the absence of heteroscedasticity (Fig. 8). The multicollinearity test showed VIF values of 3.609 for both variables, well below the threshold of 10, confirming no multicollinearity among the independent variables (Fig. 9) (Yaldi et al., 2022), (Tahitu et al., 2024).

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
RES_1	.078	101	.132	.979	101	.105

a. Lilliefors Significance Correction

Figure 7. Normality Test

Source: Processed primary data (2026)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.537	3.228		4.503	.000
	X_1	-.070	.068	-.116	-1.023	.309
	X_2	-.105	.068	-.176	-1.554	.123

a. Dependent Variable: ABS_RES

Figure 8. Heteroscedasticity Test

Source: Processed primary data (2026)

Coefficients ^a								
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	7.798	3.779		2.064	.042		
	Kompetensi Pegawai	.425	.147	.240	2.889	.005	.277	3.609
	Pemanfaatan Teknologi Informasi	1.146	.138	.689	8.298	.000	.277	3.609

a. Dependent Variable: Kualitas Pelayanan

Figure 9. Multicollinearity Test

Source: Processed primary data (2026)

Simultaneous Test and Partial Test

The Influence of Employee Competence on Public Service Quality

The partial t-test results indicate that Employee Competence (X1) has a positive and significant effect on Service Quality with a regression coefficient of 0.425 and significance value of 0.005 (sig. < 0.05), supporting H1 (Fig. 11, Fig. 12). This finding aligns with (Martini et al., 2020) which states that competence encompassing knowledge, skills, and attitudes—is causally related to outstanding work effectiveness. At the Aceh Besar MPP, attitudinal aspects such as honesty and responsibility and team skills have proven to be a strong foundation for providing excellent service, confirming (Harwin, 2025) that

competence is the primary potential influencing all human activities within an organization.

The Influence of Information Technology Utilization on Public Service Quality

The utilization of Information Technology (X2) exhibits a strong positive and significant impact with a regression coefficient of 1.146 and significance value of 0.000 (sig. < 0.05), supporting H2 (Fig. 10, Fig. 12). The higher influence of this variable compared to employee competence ($X_2 > X_1$) suggests that automation and digitalization of information are functioning efficiently at the Aceh Besar MPP (Zai et al., 2023). This finding reinforces (Perangin-Angin et al., 2025) regarding technology’s core benefit in processing information rapidly, and resonates with the respondent profile dominated by productive-age individuals (17–25 years) who are highly adaptive toward digital services.

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	7.798	3.779		2.064	.042
	Kompetensi Pegawai	.425	.147	.240	2.889	.005
	Pemanfaatan Teknologi Informasi	1.146	.138	.689	8.298	.000

a. Dependent Variable: Kualitas Pelayanan

Figure 10. Partial Test (t-Test)

Source: Processed primary data (2026)

Simultaneous Analysis and Coefficient of Determination

The F-test results confirm that Employee Competence and Information Technology Utilization simultaneously and significantly influence Service Quality with F-value of 212.865 and significance value of 0.000 (sig. < 0.05),

supporting H3 (Fig. 11). The regression equation $Y = 7.798 + 0.425X_1 + 1.146X_2$ indicates that when both variables are at zero, service quality is valued at 7.798. Furthermore, an Adjusted R^2 of 0.809 demonstrates that 80.9% of the variance in service quality is accounted for by these two predictors, while the remaining 19.1% is attributed to other variables outside this model (Fig. 12, Fig. 13) (Septiandika et al., 2025). This confirms that integrating human resources with technological tools serves as an effective strategy for fulfilling service quality dimensions, specifically Reliability and Responsiveness.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16217.598	2	8108.799	212.865	.000 ^b
	Residual	3733.174	98	38.094		
	Total	19950.772	100			

a. Dependent Variable: Kualitas Pelayanan
b. Predictors: (Constant), Pemanfaatan Teknologi Informasi, Kompetensi Pegawai

Figure 11. Simultaneous Test (F-Test)

Source: Processed primary data (2026)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.798	3.779		2.064	.042
	Kompetensi Pegawai	.425	.147	.240	2.889	.005
	Pemanfaatan Teknologi Informasi	1.146	.138	.689	8.298	.000

a. Dependent Variable: Kualitas Pelayanan

Figure 10. Multiple Linear Regression Model

Source: Processed primary data (2026)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.902 ^a	.813	.809	6.172

a. Predictors: (Constant), Pemanfaatan Teknologi Informasi, Kompetensi Pegawai

Figure 11. Coefficient of Determination

Source: Processed primary data (2026)

The findings of this study demonstrate that both Employee Competence and Information Technology Utilization are significant determinants of Public Service Quality at the Aceh Besar MPP, collectively explaining 80.9% of its variance. These results are consistent with the Resource-Based View (RBV) theory adopted in this study, which posits that service quality excellence is primarily determined by an organization's internal resources both tangible assets such as IT infrastructure and intangible assets such as employee knowledge, skills, and professional attitude (Septiandika et al., 2025). This theoretical alignment confirms that the framework constructed in this study is empirically valid and applicable within the context of a newly established integrated service institution.

The positive and significant influence of Employee Competence ($\beta = 0.425$) confirms that personnel possessing superior knowledge, skills, and work attitudes are capable of delivering services that are prompt, accurate, and aligned with societal needs, consistent with (Ardiansyah, 2021) and (Martini et al., 2020). This is particularly relevant in the context of Aceh Besar MPP, where bureaucratic challenges including uneven human resource distribution and the need for enhanced staff responsiveness were identified as persistent operational constraints in the Introduction. Furthermore, (Ingsih et al., 2021; Sagala et al., 2026) emphasize that in the context of public service reform, human resource competence particularly in digital leadership and procedural mastery serves as a critical catalyst for service quality improvement. The relatively smaller coefficient of X1 (0.425) compared to X2 (1.146) suggests that while competence is significant, its impact remains incremental without adequate technological support, reinforcing (Wijaya & Rahmawati, 2025) who assert that organizational factors such as leadership and work systems shape the ultimate effectiveness of competence in service delivery.

The dominance of Information Technology Utilization ($\beta = 1.146$) further reinforces the urgency of digital transformation articulated in the Introduction, where public demand for instantaneous and transparent services was identified as a key imperative. This aligns with (Hikma et al., 2024) and (Perangin-Angin et al., 2025) who confirm that IT implementation streamlines service processes, accelerates data management, and enhances organizational capacity. At the broader level, digital transformation in the public sector

enhances efficiency, transparency, and quality of services provided to citizens, representing a paradigm shift in public administration (Jr & Silva, 2026). The higher coefficient of IT utilization at the Aceh Besar MPP a recently established institution since 2023 suggests that digitalization has become the primary driver of service quality, particularly among its predominantly young and digitally adaptive user base (ages 17–25), consistent with (Zai et al., 2023) who categorize IT's role as automation, augmentation, and restructuring of human functions. Additionally, technological infrastructure serves as a foundational enabler of effective government service delivery, as system reliability, interoperability, and connectivity directly influence service accessibility and process efficiency (Okeyo et al., 2026).

Simultaneously, the significant F-test result and Adjusted R^2 of 0.809 corroborate (Septiandika et al., 2025) who emphasize that advanced technology cannot function optimally without the support of skilled personnel. This interdependence is further supported by (Madaki et al., 2024) who highlight that the success of IT integration in public sector organizations is contingent upon human readiness and organizational competence, and that inadequate technical skills among personnel remain a primary barrier to effective digital service delivery. In the context of the five SERVQUAL dimensions Tangibles, Reliability, Responsiveness, Assurance, and Empathy as applied in this study (Aini, 2018; Nuraini & Apriani, 2024), the simultaneous contribution of competence and IT addresses both the technical and interpersonal dimensions of service quality, confirming (Mirza et al., 2025) who found that high-quality personnel in sufficient numbers are essential for service excellence at MPP institutions. Unlike previous studies that examined these variables in isolation (Ardiansyah, 2021; Hikma et al., 2024), the simultaneous examination conducted here addresses the gap identified in the Introduction and provides a more comprehensive understanding of the factors driving service quality at a newly established MPP, contributing both empirically and practically to the development of public service management policy in Aceh Besar.

Conclusion

Based on the results of the analysis and the subsequent discussion, it can be concluded that Employee Competence and the Utilization of Information Technology play a pivotal role in enhancing the Quality of Public Services at the Aceh Besar Public Service Mall (MPP). Partially, Employee Competence is proven to have a positive and significant influence on Public Service Quality. This indicates that enhancements in the knowledge, skills, and professional attitudes of personnel contribute directly to the quality of services delivered to the community. Furthermore, the utilization of information technology also exerts a positive and significant influence on service quality, emerging as the most dominant variable within the research model. This finding indicates that the digitalization of service systems plays a strategic role in enhancing the speed, accessibility, and transparency of public services.

The results of this study reinforce the conceptual framework of service quality and support the advancement of digital government within the context of public administration. These findings underscore that in a modern service ecosystem, the effectiveness of human resources is inextricably linked to the support of information technology. Furthermore, the dominance of the technological variable in this research contributes to the development of public service management literature, particularly in understanding the behaviors and expectations of a society that is increasingly reliant on digital systems. From a practical perspective, the findings of this study offer several policy recommendations for the management of the Aceh Besar Public Service Mall (MPP). First, the optimization of digital services must be continuously pursued through enhanced system stability and regular technological updates to maintain service standards and public trust. Second, the development of employee competence should be directed toward integrating technical proficiency with digital literacy, ensuring that personnel are capable of adapting to the evolution of technology-based service systems.

This study is subject to several limitations. First, the research only incorporates two independent variables Employee Competence and Information Technology Utilization and thus does not fully account for other factors that may influence Public Service Quality.

Although the coefficient of determination is relatively high, there remains 19.1% of variance attributed to external variables beyond the scope of this model. Second, the data utilized in this study is cross-sectional in nature, meaning it only represents the conditions within a specific and limited period. Based on these limitations, future research is encouraged to incorporate other relevant variables, such as work motivation, organizational culture, or leadership, to further enrich the research model. Additionally, adopting a qualitative approach, such as in-depth interviews, is recommended to gain a more comprehensive understanding, particularly regarding the dominant role of information technology in enhancing public service quality.

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