



DOI: <https://doi.org/10.38035/gijea.v3i2>
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The Influence of Interpersonal Communication and Utilization of Information Technology Through the Quality of Public Services on Public Satisfaction at the Population and Civil Registry Service of West Tanjung Jabung Regency

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Abstract: This study aims to describe interpersonal communication, technology utilization, public service quality, and public satisfaction, as well as to determine and analyze the influence of interpersonal communication and information technology utilization through public service quality on public satisfaction at the Population and Civil Registration Office of West Tanjung Jabung Regency. This type of research uses descriptive verification research. This study uses the PLS analysis method. The results of the study indicate that interpersonal communication, information technology, and public service quality play an important role in increasing public satisfaction at the Population and Civil Registration Office of West Tanjung Jabung Regency. Interpersonal communication has been proven to improve the quality of public services while encouraging increased public satisfaction. Likewise, the use of information technology contributes positively to strengthening service quality and has an impact on public satisfaction. In addition, the quality of public service itself has a strategic role as a factor that mediates the influence of interpersonal communication and information technology on public satisfaction, so it can be concluded that the better the communication, technology utilization, and service quality provided, the level of public satisfaction will also increase.

Keyword: Interpersonal Communication, Technology Utilization, Public Service Quality, Public Satisfaction

INTRODUCTION

Public service is at the heart of the interaction between government and society, as it is here that the state exists to meet the basic needs of its citizens. Good public service not only reflects bureaucratic performance but also serves as an indicator of development success. According to Kurniawan (2015), the Indonesian bureaucracy still faces obstacles of a conventional administrative culture, which hinders service effectiveness. Similarly, Agustina

(2019) emphasized that quality public service must be able to create positive experiences and meet public expectations. Therefore, improving the quality of public service is an urgent requirement to strengthen public trust in the government (Firmansyah & Rosy, 2021).

In the context of modern governance, public service management is no longer sufficient with a rigid administrative approach, but must prioritize transparency, accountability, and a focus on user satisfaction. Dwiyanto (2017) explains that good public service is characterized by responsiveness, openness, and public participation. This is reinforced by Sulaeman (2019), who states that modern public management must be results-oriented, transparent in decision-making, and digitally based. Furthermore, Ramadhani (2021) adds that innovation and cross-sector collaboration are key to bureaucratic success in addressing increasingly complex societal needs.

One important factor in improving the quality of public services is employees' interpersonal communication skills. Good communication creates understanding, trust, and satisfaction in the relationship between service providers and the public. Liliweri (2016) describes interpersonal communication as a direct exchange of information and meaning, while Rahmat (2017) emphasizes its two-way nature, allowing for immediate feedback. In organizations, communication effectiveness is influenced not only by the content of the message but also by the quality of relationships between individuals (Mulyana, 2018). Therefore, Disdukcapil employees are required not only to be administratively skilled but also to be able to interact in a friendly, clear, and empathetic manner with the public.

In addition to communication factors, the use of information technology is also a strategic aspect in modernizing public services. Digitizing services enables bureaucracies to be more efficient, transparent, and accessible to the public. Susanto and Nugroho (2017) emphasize that digital technology can create a responsive and efficient public service system. Arifin (2019) adds that the success of e-Government is greatly influenced by the readiness of technological infrastructure, the quality of human resources, and consistent policy support. Furthermore, Wahyudi (2017) states that the implementation of digital systems can increase accountability and public participation. Thus, information technology is no longer merely an administrative tool, but a strategic instrument in realizing good governance (Pratama & Puspasari, 2020).

In providing population administration services, the Population and Civil Registration Office (Disdukcapil) of West Tanjung Jabung Regency plays a vital role. Services provided, such as electronic ID cards (KTP), Family Cards (Kartu Keluarga), Birth Certificates, and Digital Population Identification (IKD), are basic public rights that must be guaranteed. However, although the Public Satisfaction Index (IKM) shows an increasing trend from 78.8% in 2020 to 85.7% in 2024, obstacles remain, such as limited digital literacy, an imbalance in the number of employees, and suboptimal digital system integration (Disdukcapil IKM Report, 2024). This situation indicates that public satisfaction is determined not only by the speed of service, but also by the quality of interpersonal communication, the use of technology, and the consistency of service standards.

Based on the description, this research is important to analyze the influence of interpersonal communication and the use of information technology on public satisfaction with the quality of public services as a mediating variable at the Population and Civil Registry Service of West Tanjung Jabung Regency.

METHOD

This research uses a quantitative approach with a survey method. This approach was chosen because it provides an objective picture of the relationships between variables through numerical measurements and statistical analysis (Sugiyono, 2020). Quantitative research emphasizes hypothesis testing, data validity, and structured measurement so that research

results can be generalized more broadly. According to Creswell (2017), quantitative methods are effective for examining relationships between variables using standardized research instruments and producing systematically measurable data.

The object of this research is the Population and Civil Registration Service of West Tanjung Jabung Regency, with a focus on the influence of interpersonal communication (X1) and information technology (X2) on public satisfaction (Z) through the quality of public services (Y) as a mediating variable. The selection of this object is based on the strategic role of the Population and Civil Registration Service in organizing population administration that is in direct contact with the public. This is in accordance with the view of Dwiyanto (2017), who stated that public service units must be the locus of research because this is where the interaction between the state and society occurs in real terms.

The population in this study was 563,717 people who used public services and were registered in the service application at the Tanjung Jabung Barat Regency Population and Civil Registration Office in 2024. The sample was determined using the Slovin formula with an error tolerance of 10%, resulting in a sample size of 85 respondents. According to Umar (2014), the use of the Slovin formula is an efficient technique for determining sample size when the population is very large and resource constraints are a consideration.

Data analysis was conducted using two approaches: descriptive analysis and verification analysis. Descriptive analysis was used to provide an overview of respondent characteristics and the tendency of responses to each variable (Sugiyono, 2019). Meanwhile, verification analysis was conducted using the Partial Least Squares (PLS) method with the help of SmartPLS 3.0 software. This method was chosen because it is able to analyze the relationship between latent variables simultaneously, despite the relatively small sample size and non-normal data distribution (Abdillah & Jogiyanto, 2015). Hair et al. (2014) emphasized that PLS is an appropriate analysis technique for complex research models with mediating variables, because it is able to test both the measurement model (outer model) and the structural model (inner model).

RESULT AND DISCUSSION

Respondent Characteristics

Respondents in this study were residents at the Population and Civil Registration Office in West Tanjung Jabung Regency, selected randomly as many as 85 people representing each community. Each community respondent in this study functioned to fill out a questionnaire on interpersonal communication, information technology, quality of public services and public satisfaction at the Population and Civil Registration Office in West Tanjung Jabung Regency. To determine the characteristics of respondents in West Tanjung Jabung Regency based on age, gender, and education can be seen below.

Table 1. Respondent Characteristics

No	Respondent Characteristics	Frequency	Percentage (%)
Age Group (Years)			
1	21 – 30	35	41,18
2	31 – 40	28	32,94
3	41 – 50	18	21,18
4	51 – 58	4	4,71
Gender			
1	Man	39	45,88
2	Woman	46	54,12
Education			
1	High School	38	44,71
2	Diploma	2	2,35
3	Bachelor's Degree	42	49,41

No	Respondent Characteristics	Frequency	Percentage (%)
4	Master's Degree	3	3,53

Source: Primary Data Processing, 2025

Description of Research Variables

Based on the survey conducted, the description of the variables observed in the study is summarized in the following table.

Table 2. Description of Research Variables

No	Variable	Item	Average score	Score	Information
1	Interpersonal Communication	11	337	3.706	Good
2	Information Technology	9	338	3.043	Tall
3	Quality of public services	12	337	4.042	Good
4	Community Satisfaction	13	335	4.369	Tall

Source: Questionnaire Processing Results, 2025

Verification/Quantitative Analysis

Partial Least Squares (PLS) analysis is a statistical method often used to analyze complex relationships between variables, particularly in structural models (SEM). The results of this study can be seen below:

a. Convergent Validity Testing

Convergent validity testing is a type of validity used to evaluate the extent to which an instrument or measuring tool measures the same construct well.

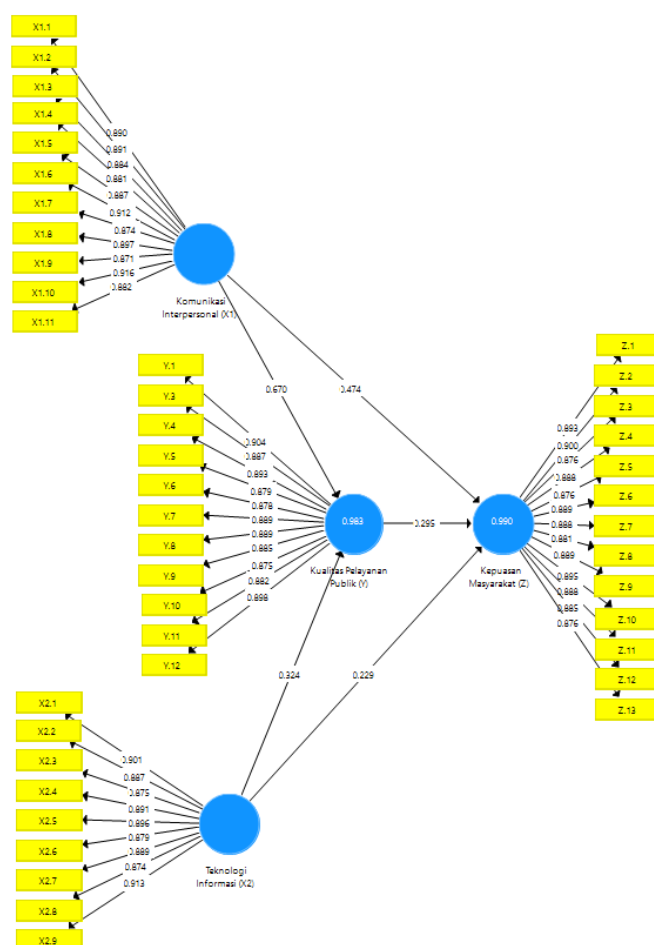


Figure 1. Full Outer Model

Based on the outer loading results displayed in Figure 1 above, it can be concluded that all indicators for each research variable, namely Interpersonal Communication Style (X1), Information Technology (X2), Public Service Quality (Y), and Public Satisfaction (Z), have loading factor values above 0.70. This indicates that all indicators in this study are valid and suitable for use in measuring the constructs of each latent variable.

In addition, based on the results of the reliability test, Composite Reliability and Cronbach's Alpha were obtained for each research variable, namely interpersonal communication (X1), information technology (X2), public service quality (Y), and public satisfaction (Z). From the test results, it can be seen that all variables have Composite Reliability values above 0.70, which range from 0.972 to 0.979. This indicates that the indicators used in measuring each variable have very good internal consistency so they can be trusted for use in further analysis.

Meanwhile, Cronbach's Alpha also showed consistent results, with all variables above the minimum value of 0.70, ranging from 0.967 to 0.977. Thus, it can be concluded that all variables in this study meet reliability criteria, ensuring that the research instrument used is capable of producing consistent and stable data.

b. Inner Model Evaluation

Structural model testing in SEM-PLS analysis uses SmartPLS.3, namely the coefficient of determination (R^2) to measure how far the model's ability to explain the variance of the dependent variable. Hair et.al. (2014) revealed that the coefficient of determination is a measure of the combined ability of exogenous latent variables to predict the construct of the endogenous variable, that is, the coefficient represents the amount of variance in the endogenous construct explained by all the exogenous constructs associated with it. The R^2 value ranges from 0 to 1, with higher levels indicating a higher level of predictive accuracy. As with multiple regression, the adjusted coefficient of determination (Adjusted R^2) is used as a criterion to avoid bias towards complex models. This criterion is modified according to the number of exogenous variable constructs (Hair et.al., 2017).

1) R-Square

In assessing a model with PLS, we begin by looking at the R-square for each dependent latent variable (Hair et al., 2017). Table 3 shows the results of the R-square estimation using SmartPLS 3:

Table 3. R Square Results	
Variable	R Square
Quality of public services (Y)	0,983
Community Satisfaction (Z)	0,990

Source: Data Processing with PLS, 2025

Table 3 shows the results of the R-Square test used to determine how much the independent variables are able to explain the dependent variable. The R-Square value for the public service quality variable (Y) is 0.983. This means that the variation that occurs in the quality of public services can be explained by the variables of interpersonal communication (X1) and information technology (X2) by 98.3%, while the remaining 1.7% is explained by other variables not included in this research model.

Meanwhile, the R-Square value for the public satisfaction variable (Z) was 0.990. This indicates that the variables interpersonal communication (X1), information technology (X2), and public service quality (Y) were able to explain 99.0% of the variation in public

satisfaction, while the remaining 1.0% was explained by other factors outside the research model.

2) Q Square

Wiyono (2011), A model is considered to have relevant predictive value if the Q square value is greater than 0 (> 0). The predictive-relevance value is obtained using the following formula. The predictive-relevance value is obtained using the formula:

$$Q^2 = 1 - (1 - R_1^2)(1 - R_2^2)$$

$$Q^2 = 1 - (1 - 0,983)(1 - 0,990)$$

$$Q^2 = 1 - (0,017)(0,010)$$

$$Q^2 = 1 - 0,0002$$

$$Q^2 = 0,9998$$

The result of the Q square calculation in this study is 0.99998, meaning that the model in this study is suitable for explaining endogenous variables because the value of $0.9998 > 0$.

3) Structural Model Testing

In SEM PLS analysis, the structural value of the model in this study can be seen from the direct effects value, also known as the path coefficient. Next, path coefficients between constructs are measured to determine the significance and strength of the relationship and also to test the hypothesis.

Table 4. Path Coefficients

	Path Coefficient
Interpersonal communication (X1) -> Quality of public services (Y)	0.670
Information technology (X2) -> Quality of public services (Y)	0.324
Interpersonal communication (X1) -> Public satisfaction (Z)	0.474
Information technology (X2) -> Public satisfaction (Z)	0.229
Quality of public services (Y) -> Public satisfaction (Z)	0.295
Interpersonal communication (X1) -> Quality of public services (Y) -> Public satisfaction (Z)	0.198
Information technology (X2) -> Quality of public services (Y) -> Public satisfaction (Z)	0.095

Source: Data Processing with PLS, 2025

Based on the results of the patch coefficient analysis in Table 4 above, the following conclusions can be drawn:

- The direct effect of interpersonal communication on public service quality is 0.670, meaning that if interpersonal communication increases by one unit, public service quality can increase by 0.670. This effect is positive.
- The direct effect of information technology on public service quality is 0.324, meaning that if information technology increases by one unit, public service quality can increase by 0.324. This effect is positive.
- The direct effect of interpersonal communication on public satisfaction is 0.474, meaning that if interpersonal communication increases by one unit, public satisfaction can increase by 0.474. This effect is positive.
- The direct effect of information technology on public satisfaction is 0.229, meaning that if information technology increases by one unit, public satisfaction can increase by 0.229. This effect is positive.
- The direct effect of public service quality on public satisfaction is 0.295, meaning that if public service quality increases by one unit, public satisfaction can increase by 0.295. This influence is positive.

- f) The indirect influence of interpersonal communication on public satisfaction through public service quality is 0.198, meaning that if interpersonal communication increases by one unit, public satisfaction can increase indirectly through public service quality by 0.198. This influence is positive.
- g) The indirect influence of information technology on public satisfaction through public service quality is 0.095, meaning that if information technology increases by one unit, public satisfaction can increase indirectly through public service quality by 0.095. This influence is positive.

c. Hypothesis Testing

Hypothesis testing is a process in statistics to determine whether the sample data in Table 5 provide estimated output for testing a structural model.

Table 5. Hypothesis Testing of Direct and Indirect Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Interpersonal communication (X1) -> Quality of public services (Y)	0.670	0.679	0.123	5.425	0.000
Information technology (X2) -> Quality of public services (Y)	0.324	0.314	0.124	2.611	0.009
Interpersonal communication (X1) -> Public satisfaction (Z)	0.474	0.476	0.089	5.302	0.000
Information technology (X2) -> Public satisfaction (Z)	0.229	0.238	0.097	2.355	0.019
Quality of public services (Y) -> Public satisfaction (Z)	0.295	0.284	0.103	2.862	0.004

Source: Data Processing with PLS, 2025

In theory, the hypothesis of the influence of exogenous variables on endogenous variables is carried out by comparing the results of the p value of the path coefficient with a significance level of $\alpha = 0.05$. The test can be said to be very significant if the p value is smaller or equal to 0.05 ($p \text{ value} \leq 0.05$) or using the t table value of 1.96 with the criteria for rejecting and accepting the hypothesis, namely if the t-statistic $>$ t count then the hypothesis is rejected, and if the t-statistic $<$ t count then the hypothesis is accepted (Hair et.al., 2017).

Based on the results of hypothesis testing through bootstrapping as shown in Table 5 above, it appears that all exogenous variables have a T-Statistic value $>$ 1.96, and a P-Value $<$ 5% (0.05). Based on these results, it can be concluded that all hypotheses are accepted. This means that there is a significant influence of interpersonal communication and information technology on service quality and public satisfaction, as well as service quality has a positive and significant influence on public satisfaction.

Discussion

The Influence of Interpersonal Communication on Public Service Quality

The results of the study indicate that interpersonal communication has a positive and significant effect on public service quality. This finding aligns with research by Putra and Santoso (2020), which found that interpersonal communication has a positive and significant effect on public service quality. Interpersonal communication positively impacts public service quality because employees who are willing to convey information honestly, openly, clearly, and without confusion are able to create transparency in service delivery. Respondents' statements indicate that the information provided by employees is truly open and accessible to the public, thus minimizing misunderstandings. This transparency is closely

related to the quality of public service, for example, when service procedures are carried out according to regulations without deviations and the resulting documents are provided in accordance with public requests. If employees are able to communicate information effectively, the public will more easily understand the requirements, flow, and timing of service delivery. This makes service delivery more effective, efficient, and in accordance with standard procedures.

The Influence of Information Technology on the Quality of Public Services

The results of the study indicate that information technology variables have a positive and significant impact on the quality of public services. This finding aligns with research by Sari and Wijaya (2019), which found that information technology has a positive and significant impact on the quality of public services. Information technology impacts the quality of public services for employees because, through information technology, various administrative procedures can be completed more quickly, so the public does not have to wait too long to receive the services they need. Data input, document validation, and recording of service results can be automated through applications or computerized systems. This helps employees reduce repetitive administrative workloads, allowing them to focus more on improving the quality of interactions with the public.

The Influence of Interpersonal Communication on Public Satisfaction

The results of the study indicate that interpersonal communication has a positive and significant effect on public satisfaction. These results align with research conducted by Rahmawati and Kusuma (2021), which found that interpersonal communication has a positive and significant effect on public satisfaction. Interpersonal communication significantly impacts public satisfaction because effective interactions between employees and the public foster more harmonious, open, and understanding relationships. When employees possess strong communication skills, such as listening attentively, conveying information clearly, and demonstrating empathy, the public will feel valued and recognized. This sense of appreciation fosters public satisfaction because they feel their needs and aspirations are genuinely cared for.

The Influence of Information Technology on Public Satisfaction

The results of this study indicate a positive and significant relationship between information technology and public satisfaction. This finding aligns with research conducted by Nugroho and Putri (2020), which found that information technology has a positive and significant impact on public satisfaction. Information technology significantly impacts public satisfaction because it enables faster, more transparent, and more accessible services for all levels of society. By implementing information technology in public services, the public can obtain the information they need without having to go through lengthy and complicated procedures. This increases service efficiency, reduces waiting times, and minimizes errors in information delivery. Information technology-based service systems also provide broader access, whether through websites, applications, or other digital media, enabling the public to feel supported and satisfied because services can be accessed anytime and anywhere.

The Influence of Public Service Quality on Public Satisfaction

The results of the study indicate that public service quality has a positive and significant effect on public satisfaction. This finding aligns with research conducted by Prananto (2019), which found that public service quality has a positive and significant effect on public satisfaction. Public service quality significantly impacts public satisfaction because good public service is a key indicator of the performance of government agencies serving the

public. When public services are delivered quickly, accurately, and in a friendly manner, and effectively address public needs, recipients will feel satisfied. The public tends to assess service quality based on the alignment between expectations and reality. If public services are perceived as meeting standards, transparent, and fair, public satisfaction will increase. Thus, quality public services can foster trust and positive relationships between the public and the government agencies providing them.

The Influence of Interpersonal Communication on Public Satisfaction Through Public Service Quality

Interpersonal communication influences public satisfaction by improving the quality of public services. Good interactions between employees and the public are the foundation for creating friendly, clear, and easy-to-understand services. Open and effective communication allows the public to receive accurate explanations regarding administrative procedures, requirements, and service flows. This reduces misunderstandings and expedites the service process. With clear information provided by employees, the public feels more valued and their needs are met. Public services supported by good interpersonal communication will foster public trust in the agency, thereby improving the quality of public services and positively impacting perceived satisfaction levels.

The Impact of Information Technology on Public Satisfaction Through Quality Public Services

Information technology impacts public satisfaction by improving the quality of public services because it enables faster, more accurate, and more transparent public services. With technological support, the public no longer has to wait long hours or go through complicated procedures to obtain administrative services, such as obtaining ID cards, birth certificates, or other civil registration documents. Digital-based systems, such as online queues, app-based services, and information through official websites, allow the public to access real-time information without the constraints of time and space. This encourages improved quality of public services because the speed and accuracy of services are more assured, so the public feels that their time and needs are valued. Thus, information technology is not merely a supporting tool but a crucial factor in achieving effective and efficient public services.

CONCLUSION

Based on the results of the analysis and discussion presented in the previous chapter, the following conclusions can be drawn:

1. Descriptive analysis explains that interpersonal communication received a total score of 3706 with an average score of 337, categorized as "Good." Information technology received a total score of 3043 with an average score of 338, categorized as "High." Furthermore, the quality of public services also fell into the "Good" category, with a total score of 4042 and an average score of 337. Meanwhile, public satisfaction received a total score of 4360 with an average score of 335, categorized as "High."
2. Interpersonal communication had a positive and significant impact on the quality of public services at the Population and Civil Registration Office in West Tanjung Jabung Regency. This means that as interpersonal communication improves, the quality of public services will increase by 67%.
3. Information technology had a positive and significant impact on the quality of public services at the Population and Civil Registration Office in West Tanjung Jabung Regency. This means that as information technology improves, the quality of public services will increase by 32.4%.

4. Interpersonal communication has a positive and significant effect on public satisfaction at the Population and Civil Registration Office in West Tanjung Jabung Regency. This means that as interpersonal communication improves, public satisfaction increases by 47.4%.
5. Information technology has a positive and significant effect on public satisfaction at the Population and Civil Registration Office in West Tanjung Jabung Regency. This means that as information technology improves, public satisfaction increases by 22.9%.
6. The quality of public services has a positive and significant effect on public satisfaction at the Population and Civil Registration Office in West Tanjung Jabung Regency. This means that as the quality of public services improves, public satisfaction increases by 29.5%.
7. Interpersonal communication has a positive and significant effect on public satisfaction through the quality of public services at the Population and Civil Registration Office in West Tanjung Jabung Regency. This means that as interpersonal communication improves, public service quality and public satisfaction increase by 19.8%.
8. Information technology has a positive and significant effect on public satisfaction through the quality of public services at the Population and Civil Registration Office in West Tanjung Jabung Regency. This means that as information technology improves, the quality of public services and public satisfaction will increase with an influence of 9.5%.

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