

The Influence of Transparency and Apparatus Competence on The Quality of Public Services Through The Role of Information Technology as a Moderating Variable

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Abstrac

The quality of public services reflects the success of good governance. This study aims to examine the influence of transparency, competence, and information technology as moderating variables on the quality of public services. The research uses a quantitative approach with Structural Equation Modeling–Partial Least Squares (SEM-PLS). The research results show that transparency has a positive and significant influence on service quality ($\beta = 0.292$, $p < 0.05$). Competence also shows a positive and significant influence ($\beta = 0.437$, $p < 0.01$). Meanwhile, information technology significantly moderates the relationship between transparency and public service quality ($\beta = 0.229$, $p < 0.05$) and between employee competence and public service quality ($\beta = 0.220$, $p < 0.05$). This research emphasizes the need for the government to promote transparency, enhance bureaucratic skills, and accelerate digital transformation to ensure accountable services that meet public needs.

Keywords: Transparency; Apparatus_Competence; Information_Technology; Public_Service

1. Introduction

1.1 Background

In the era of good governance, improving the quality of public services has become a major concern for policymakers. The quality of public services is widely recognized as a crucial dimension of government performance, which not only affects public satisfaction but also trust in government institutions [1]. In Indonesia, the demand for transparent, efficient, and public-oriented services has increased with the acceleration of decentralization and digital transformation at all levels of government [2]. In the context of regional autonomy, public services become the primary responsibility of local governments, including technical agencies such as the Department of Community and Village Empowerment (DPMD).

In North Luwu Regency, the Department of Community and Village Development (PMD) plays a strategic role in providing public services, particularly in village development, village fund distribution, and capacity building for village officials. However, various reports and observations indicate that there is still a gap between public expectations and the reality of the services provided. Phenomena such as service delays, lack of information regarding service SOPs, technical skills of officials, and facilities and infrastructure can lead to public distrust of government agencies. The quality of public services is regulated thru the enactment of Law Number 25 of 2009 concerning Public Services, which provides a legal framework for improving accountability, transparency, and citizens' rights in service provision. This law requires every government agency to ensure services are provided in accordance with established standards of procedure, time, cost, and personnel competence.

One important factor determining service quality is transparency. Transparency has emerged as one of the fundamental principles of good governance. Not only as a mechanism to promote accountability, but also as a means to improve service delivery outcomes [3]. Transparency in public administration refers to the openness and accessibility of government processes, decisions, and performance metrics. This allows citizens to monitor, evaluate, and influence the services they receive, thus promoting participatory governance. Implementing

transparency in service delivery allows public organizations to build trust, reduce corruption, and improve responsiveness [4].

In local government agencies like the PMD Office in North Luwu Regency, transparency is crucial for managing program and activity funds, optimizing community participation by ensuring participatory planning, and facilitating and guiding village development programs that meet community needs. Research conducted by [5], [6] shows that the competence of government officials has a significant impact on the quality of public services. This means that every official must be able to improve their existing competencies to enhance the quality of public services, thereby achieving good governance.

Another factor influencing the quality of public services is the competence of public officials or public servants. Competencies encompass a variety of attributes, including knowledge, skills, attitudes, and values that enable civil servants to perform their duties effectively and ethically. Competent civil servants are expected not only to understand the regulatory framework and administrative procedures but also to demonstrate communication skills, decision-making abilities, and flexibility in a dynamic environment [7].

The integration of information technology (IT) into public sector organizations has brought about transformative changes in the way services are designed, delivered, and evaluated. Digital governance initiatives such as e-government and digital reporting platforms offer opportunities to improve transparency, increase operational efficiency, and enhance service responsiveness [8]. Information technology facilitates real-time communication, data accuracy, and performance monitoring, thus supporting transparency and efficiency in service delivery. However, the impact of IT on service quality often depends on how effectively IT is adopted and utilized by public officials [9]. In this case, IT can serve as a moderating factor that strengthens or weakens the relationship between transparency, competence, and service quality.

This research is interesting because the issue of public services in Indonesia remains a major focus in efforts to achieve good governance. The quality of public services is still often considered less than optimal, despite the introduction of numerous regulations, guidelines, and service systems by the government. The quality of public service remains a benchmark for the success of government agencies in meeting the needs and expectations of the community. With increasing public awareness of their rights, there are demands for public services that are faster, more transparent, accountable, and technology-based. This study aims to analyze the influence of transparency and apparatus competence on the quality of public services, and to determine the moderating role of information technology.

1.2 Transparency

Transparency literally means clear, fully visible. Therefore, transparency can be defined as openness in carrying out an activity [10]. according to [11] Transparency is the openness of the government in every stage of policy making so that it can be known, monitored, and evaluated by the public. Through transparency, the public has access to relevant information so that it can foster trust, active participation, and increase accountability in government administration. In KepMenPan No. 26/KEP/M.PAN/2/2004, Transparency in implementation means government openness in carrying out every public task and activity, from the policy formulation stage, planning, program implementation, to the monitoring and evaluation process. All information regarding these stages must be presented clearly, accurately, and easily accessible to all parties who need it, in order to encourage public participation and accountability.

Transparency in the provision of public services primarily includes: 1) Management and provision of public services; 2) Service procedures; 3) Technical and administrative requirements for services; 3) Details of service costs; 4) Service completion time; 5)

Authorized and responsible officials; 6) Service location; 7) Service pledge; 8) Public service standards; 9) Service information.

According to [10] the principle of transparency is not only related to financial matters; government transparency in planning also includes five aspects:

1. Openness in the implementation of important meetings that provide opportunities for the public to participate and express their opinions.
2. Transparency in the dissemination of information related to documents that are relevant and need to be known by the public.
3. Openness in every procedure, both in the decision-making process and in the preparation of activity plans.
4. Open access to registers containing legal data or facts, such as civil records, land registers, and similar documents.
5. Government openness in accepting and encouraging the active role of the public in the process of governance.

Transparency is one of the main principles of Good Corporate Governance, serving as a guaranty of information openness, accountability, and public oversight of government service delivery. Transparency and public information have a significant impact on improving service quality in local governments [12]. Accountability is enhanced thru information openness to the public, enabling more effective oversight and community participation in decision-making [13]. Information technology has the potential to increase transparency thru process automation, reducing face-to-face interactions prone to deviations, and improving the quality of documentation storage [14]. The use of technology can also build public trust in government institutions [15].

1.3 Apparatus Competency

The term "apparatus" comes from the word "apparat," which means government official. Therefore, "apparatus" refers to civil servants working in government agencies, both at the central and regional levels [16]. In the Minister of Home Affairs Regulation number 108 of 2017 concerning government competence, competence refers to the abilities and characteristics possessed by Civil Servant employees. This includes the knowledge, skills, as well as the attitudes and behaviors needed to perform job duties professionally, effectively, and efficiently. Based on the above description, it can be concluded that the competence of apparatus is the ability, including knowledge, skills, and attitudes, that apparatus must generally possess in carrying out their duties, responsibilities, and authority in accordance with their job competency standards. This competency serves as the foundation for officials to work optimally and provide quality public service.

The competencies of Civil Servants needed to serve the public, based on the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform Number 38 of 2017 concerning the Standard of Competencies for Civil Servant Positions, include:

1. Technical Competencies are a combination of knowledge, skills, and attitudes/behaviors focused on the technical field of a position that can be observed, measured, and developed.
2. Managerial Competencies are a combination of knowledge, skills, and attitudes/behaviors for leading and/or managing organizational units that can be observed, measured, and developed.
3. Social and cultural competence is a combination of knowledge, skills, and attitudes or behaviors formed through experiences interacting with diverse communities in terms of religion, ethnicity, culture, values, ethics, morals, national insight, emotions, and principles. This competence must be possessed, observed, measured, and developed by every official in order to achieve work results that are in line with their roles, functions, and positions.

The quality of public service is heavily influenced by the human resources directly involved in providing it. The competence of the apparatus reflects the capacity of human resources in carrying out tasks, serving the community, and completing work effectively and efficiently. Competent apparatus will be able to work according to standard operating procedures and will quickly respond to community needs [17]. Previous research also shows that the competence of government officials significantly affects the performance of public services [18], Employee competence is closely related to public satisfaction with public administration services [19]. Competence can also create a professional, disciplined, and innovative work culture.

1.4 Information Technology

According to [20] information technology encompasses facilities and infrastructure such as hardware, software, and useware used to obtain, manage, interpret, store, organize, transmit, and utilize data for specific purposes. The utilization of information technology serves as the primary tool to assist officials in managing resources, transforming them into easily understandable and usable information to support decision-making or actions, with the goal of providing the best service to the community [21]. Based on various literature, the utilization of information technology is not limited to the use of tools or systems, but also encompasses an organization's ability to integrate and optimize information technology to support the achievement of its mission and vision. The use of information technology referred to is the optimal utilization of computer hardware, software, databases, the internet, electronic commerce, and other types of technology related to information [22].

The use of information technology is becoming an important factor in strengthening the principles of good governance, particularly those related to transparency. Transparency requires suggestions that allow information to be easily and quickly accessible. Government agencies use technology to disseminate information to the public regarding service information, procedures, service hours, and other details to ensure information transparency and reach a wider segment of society. Information technology has the potential to increase transparency thru process automation, reducing face-to-face interactions prone to deviations, and improving the quality of documentation storage [23]. The use of technology can also build public trust in government institutions [14].

1.5 Quality of Public Service

Law Number 25 of 2009 concerning Public Services explains that public services are a series of activities carried out systematically in order to meet the needs of the community in accordance with the provisions of laws and regulations. These services include the provision of goods, services, and/or administrative services organized by government agencies and other public service providers, with the aim of providing convenience, certainty, and satisfaction for every citizen and resident. The quality of public service reflects an organization's ability to provide satisfactory service to users, both technically and administratively.

Service quality is an important aspect that determines the success of both companies and government agencies, as it significantly influences consumer or public satisfaction [24]. Satisfaction will be achieved when the service provided is of high quality and performed well. According to [25] the public service quality indicators often used to assess service effectiveness consist of five main dimensions: physical evidence, reliability, responsiveness, assurance, and empathy

1.6 Hipotesis

H1: Transparency has a positive effect on the quality of public services.

H2: The Apparatus Competence has a positive effect on the quality of public services.

H3: Information technology moderates the effect of transparency on the quality of public services.

H4: Information technology moderates the effect of Apparatus competence on the quality of public services.

2. Methodology

2.1 Types and Location of Research

This research is quantitative research, which is a research method that uses numerical data and statistical analysis to test hypotheses and answer questions. The research will be conducted at the North Luwu District PMD Office.

2.2 Population and Sample

Population is a group of people, events, or anything that has specific characteristics determined by the researcher for study and conclusion drawing. The population used in this study is the community receiving services from the PMD Office of North Luwu Regency. The sample size was determined using the theory employed by [26], which states that the minimum sample size is 50, but a larger sample size, especially if it exceeds 100, will yield more stable results. Based on the description, the sample size for this study is 120 respondents.

2.3 Operational Definition of Variable

Table 1. Operational Definition and Variable Indicators

No	Variable	Operational Definition	Indicators	Sources
1	Transparency	Transparency in public service refers to the degree of openness of government agencies in providing relevant, clear, and accessible information to the public.	• Informative • Openness • Disclosure	Hermansyah et al. (2018)
2	Apparatus Competence	Apparatus competence is a set of knowledge, skills, and abilities possessed by employees to effectively and efficiently carry out public service tasks.	• Skills • Knowledge • Abilities	Nurhikma (2021)
3	Information Technology	Information technology in public service refers to the use of hardware, software, and communication networks to improve the effectiveness, efficiency, and accuracy of service processes.	• Use of computers • Use of networks • Use of systems	Nurhikma (2021)
4	Public Service Quality	Public service quality is the level of excellence in service provided by government agencies to the public, measured based on the match between expectations and perceptions of service recipients.	• Tangible • Reliability • Responsiveness • Assurance • Empathy	Heriyanto & Rukmandiana (2022)

2.4 Data Analysis Methods

Data analysis was performed by applying the Structural Equation Modeling (SEM) method processed through the Partial Least Squares (PLS) approach. The data analysis stages are as follows:

1. Measurement Model (OuterModel)

The Outer Model is used to ensure that the instruments used truly represent the research variables. This test is conducted in two stages:

a. Validity Test

Validity Test The validity test aims to ensure that the indicators in the study are truly measuring what they are supposed to measure [27]. There are two types of validity that can be assessed using SEM-PLS: convergent validity and discriminant validity. Convergent validity testing is used to measure the correlation between item scores (indicators) and construct scores (latent variables). A high loading factor value (generally above 0.7) indicates that the construct has good convergent validity. In addition, Average Variance Extracted (AVE) is also used as an indicator, with an AVE value above 0.5 considered to meet the validity criteria. Meanwhile, discriminant validity tests are used to assess the extent to which a construct can be distinguished from other constructs. One method used is the Fornell-Larcker Criterion, whereby the square root of the AVE value of a construct must be greater than the correlation between that construct and other constructs.

b. The Reliability Test

The Reliability Test aims to measure the consistency and stability of the measurement results from the research instrument [27]. There are two commonly used methods for measuring reliability, namely Cronbach's Alpha and Composite Reliability (CR). Cronbach's Alpha serves to assess the level of internal consistency between indicators in a construct. In general, a Cronbach's Alpha value exceeding 0.7 indicates that the construct has good reliability. Composite Reliability (CR), on the other hand, is used to measure the overall reliability of a construct. A CR value > 0.7 also indicates good reliability.

2. Hypothesis Test

Hypothesis testing using SEM-PLS was conducted to examine the relationships between variables in the developed model. This test typically uses the P-value and t-statistic to assess the significance of the relationship between variables.

3. Result and Discussion

3.1. Result

Validity and Reliability Test

This test is conducted to ensure that the instrument used truly represents the research variables. Here are the results of the validity and reliability tests, displayed in the table below:

Table 2. Validity and Reliability Test

Construct	Item	Loading Factor	AVE	Remarks	Cronbach's Alpha	Composite Reliability	Interpretation
Transparency	Trans1	0.889	0.708	Valid	0.917	0.921	Reliable
	Trans2	0.725		Valid			
	Trans3	0.863		Valid			
	Trans4	0.838		Valid			

Apparatus Competence	Trans5	0.877		Valid			
	Trans6	0.847		Valid			
	KA1	0.879		Valid			
	KA2	0.888		Valid			
	KA3	0.919	0.813	Valid	0.954	0.954	Reliable
	KA4	0.906		Valid			
	KA5	0.914		Valid			
Information Technology	KA6	0.903		Valid			
	TI1	0.872		Valid			
	TI2	0.877		Valid			
	TI3	0.906	0.770	Valid	0.925	0.926	Reliable
	TI4	0.856		Valid			
Public Service Quality	TI5	0.876		Valid			
	PP1	0.830		Valid			
	PP2	0.878		Valid			
	PP3	0.893		Valid			
	PP4	0.913	0.788	Valid	0.955	0.955	Reliable
	PP5	0.914		Valid			
	PP6	0.870		Valid			
	PP7	0.914		Valid			

Source: SEM-PLS data processing results, 2025

Based on the validity test results shown in the table above, it can be concluded that all questionnaire items are valid. This is evidenced by the loading factor values being greater than 0.7, which is supported by the statement [26] that a good loading factor value is greater than 0.7. In addition, to ensure that the questionnaire items are valid, the Average Variance Extracted (AVE) value can be seen to be greater than 0.5. The reliability test results show that the Cronbach's Alpha and Composite Reliability values are greater than 0.5. This shows that the research instrument is reliable [27].

Hypothesis Test

Hypothesis testing is conducted to examine the relationship between variables. The results of the hypothesis test are presented in the table below:

Table 3. Hypothesis Test

Hypothesis	Relationship	Coefficient	t-Statistics	p-Value	Conclusion
H1	Trans → PP	0.292	3.035	0.002	Accepted
H2	KA → PP	0.437	4.037	0.000	Accepted
H3	TI × Trans → PP	0.229	2.121	0.034	Accepted
H4	TI × KA → PP	0.220	2.022	0.043	Accepted
R Square				0.901	

Source: SEM-PLS data processing results, 2025

Based on the results of hypothesis testing (Table 4.2), the following information was obtained:

- Transparency has a positive and significant effect on the quality of public services, with a P value of $0.002 < 0.05$ and a path coefficient of 0.292. This shows that the higher the level of transparency, the better the quality of public services produced.
- Apparatus competence has a positive and significant effect on public services, as indicated by a P value of $0.000 < 0.05$ and a path coefficient of 0.437. This means that an increase in the competence of civil servants has a direct impact on improving the quality of public services.

- c. Information technology acts as a moderating variable that strengthens the influence of transparency on public services, with a P value of $0.034 < 0.05$ and a path coefficient of 0.229. Thus, the use of information technology can increase the effectiveness of transparency in the delivery of public services.
- d. Information technology has also been proven to strengthen the influence of apparatus competence on public services, as evidenced by a P value of $0.043 < 0.05$ and a path coefficient of 0.220. This shows that the use of information technology can improve the performance of civil servants in providing services to the community.
- e. The R-Square value of 0.901 indicates that 90.1% of the variation in public service quality can be explained by the variables of transparency, Apparatus competence, and information technology. Meanwhile, the remaining 9.9% is influenced by other factors not included in this research model.

3.2. Discussion

The influence of transparency on the quality of public services

The statistical analysis results above show that transparency has a positive influence on the quality of public services. This means that the higher the level of transparency demonstrated by government officials, the better the public services received by the community. Transparency provides the public with the opportunity to access clear and diverse information, thereby reducing the potential for abuse of power by government officials and increasing public participation.

The results of this study support the findings of [11] that public information disclosure is one of the important factors in increasing accountability and the quality of public services. Research [28] also shows that transparency improves the effectiveness of public services and increases public satisfaction. This research aligns with the theory of good governance, which emphasizes the importance of transparency as a main pillar in the implementation of good governance.

The influence of apparatus competence on the quality of public services

Apparatus competence influences the quality of public services. This means that the more competent (in terms of knowledge, skills, and professional attitude) the apparatus is, the higher the quality of service provided to the public. The competence of the apparatus is a key component of service, as they are the ones who directly interact with the community. Therefore, competent apparatus will provide services in accordance with existing SOPs.

The results of this study are in line with the concept of public service professionalism, which emphasizes the importance of enhancing human resource capacity in providing public services [17]. According to [6]; [5] the competence of public employees significantly contributes to the effectiveness of public services, public satisfaction, and the achievement of organizational goals. Based on this, public organizations must pay special attention to improving the competence of their personnel as part of a long-term investment and bureaucratic reform [7]

The influence of transparency on the quality of public services thru information technology as a moderating variable

The results of the hypothesis test show that information technology can strengthen the influence of transparency on the quality of public services. This means that the use of information technology such as websites, digital applications, and online service information systems can increase transparency for the public. Digital-based transparency is a step that

must be implemented by the government, as it can be a means of building public trust. With information transparency, the public can increase their participation and oversee the public service process.

The results of this study are consistent with the findings of [12] that digital service systems can increase transparency and public trust in the government. The UN E-Government Survey (2022) report confirms that countries that integrate transparency with digital technology tend to have a higher public service quality index. Transparency in the development of information technology is not about the amount of information announced, but rather the extent to which that information can be accessed and understood by the public [15].

The influence of apparatus competence technology on the quality of public services thru information technology as a moderating variable

Hypothesis testing results show that information technology can strengthen the influence of apparatus competence on the quality of public services. In the era of information technology development, the competence of government officials is not only about administrative and technical skills, but they must also possess digital adaptation skills. Competent apparatus that does not have good information technology skills will find it difficult to provide fast and transparent service to the public.

Information technology is becoming part of the bureaucratic reform process. The integration of competence and technology will make the apparatus more professional and increase work transparency. This aligns with the research findings [20] that digital competence of government officials significantly improves the quality of public services. The OECD report (2021) emphasizes that digital literacy is key to success in bureaucratic reform in the digital age.

4. Conclusion

This study examines the influence of transparency, official competence, and the moderating role of information technology on the quality of public services. The research findings indicate that transparency has a positive and significant impact on the quality of public services, demonstrating that the more transparent government officials are, the better the services provided to the public will be. The competence of officials has a positive and significant influence, meaning that skilled and professional employees are more prepared to provide efficient and responsive services.

Information technology as a moderating variable strengthens the impact of transparency and official competence on the quality of public services. Information technology enables easier access to information, faster and more transparent services. The results of this study support the principles of good governance, which emphasize the need for governments to invest in transparency mechanisms, human resource development, and digital infrastructure to achieve public services that are more accountable, inclusive, and centered on public needs.

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