

Quality of Service in the Development of E-Government Systems towards Community Participantion (Case Study of Sinjai Regency Public Service Mall)

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui seberapa besar pengaruh kualitas pelayanan terhadap partisipasi masyarakat melalui sistem E-Government, dengan studi kasus di Mall Pelayanan Publik Kabupaten Sinjai. Metode yang digunakan dalam penelitian ini adalah pendekatan kualitatif, yang dilakukan melalui kuesioner dengan menggunakan sumber data primer, yaitu data yang diperoleh dari Mall Pelayanan Publik Kabupaten Sinjai. Pengumpulan data dilakukan melalui kuesioner, observasi, dan dokumentasi. Kuesioner disebarakan kepada para narasumber, dan penelitian ini melibatkan populasi sebanyak 255.853 orang yang tersebar di seluruh wilayah masyarakat desa, kelurahan, dan kecamatan. Jumlah sampel yang diambil ditentukan menggunakan rumus Slovin, sehingga diperoleh 150 responden. Teknik analisis yang digunakan adalah pemodelan persamaan struktural (Structural Equation Modeling). Hasil penelitian menunjukkan bahwa kualitas pelayanan yang diukur melalui tangibilitas, reliabilitas, responsivitas, empati, dan assurance berpengaruh positif dan signifikan secara langsung terhadap sistem E-Government di Mall Pelayanan Publik Kabupaten Sinjai. Selanjutnya, kualitas pelayanan yang sama juga berpengaruh positif dan signifikan secara langsung terhadap partisipasi masyarakat di Mall Pelayanan Publik Kabupaten Sinjai. Selain itu, sistem E-Government juga berpengaruh positif dan signifikan secara langsung terhadap partisipasi masyarakat di Mall Pelayanan Publik Kabupaten Sinjai.

ABSTRACT

This study aims to determine the extent to which the quality of service influences community participation through the E-Government system, with a case study at the Sinjai Regency Public Service Mall. This research employs a qualitative approach conducted through a questionnaire using primary data sources, particularly data obtained from the Sinjai Regency Public Service Mall. The data collection method consisted of questionnaires, observations, and documentation. Questionnaires were distributed to participants, and interviews were conducted with a total population of 255,853 individuals distributed among various villages and sub-district communities. The sample size was determined using the Slovin formula, resulting in a total of 150 respondents. The analysis technique used was Structural Equation Modeling (SEM). The results of the research indicate that service quality, measured through tangibility, reliability, responsiveness, empathy, and assurance, has a positive and significant indirect effect on the E-Government system as well as on community participation at the Sinjai Regency Public Service Mall. Additionally, the E-Government system has a positive and significant effect on community participation in the Public Service Mall of Sinjai Regency.

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INTRODUCTION

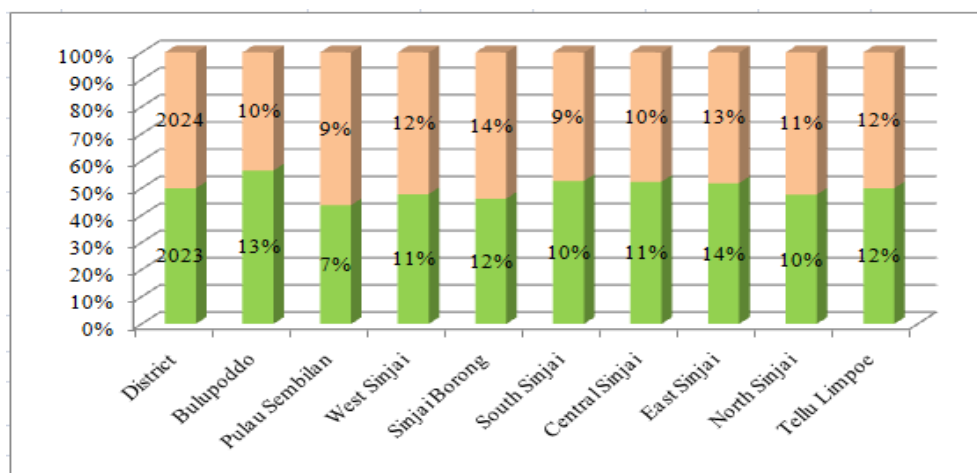
Public Service Malls represent the third generation of public service innovations, integrating services from central, regional, and private sectors. These facilities offer a wide range of amenities, including service platforms, meeting rooms, prayer rooms, restrooms, waiting areas, drive-thru service points, relaxation parks, facilities for individuals with disabilities, stationery centers, libraries, canteens, and parking areas. The primary goal of Public Service Malls is to provide easier access to services without the constraints of distance or time. In Sinjai Regency, the establishment of the Public Service Mall aims to enhance service quality and encourage active participation from the local community (Indar et al., 2024). Factors such as trust in government, digital literacy, perceived ease of use, and perceptions of electronic services all play a role in shaping citizen satisfaction in various ways (Ramaldhan & Ulung, 2024).

Community participation is a crucial aspect of achieving transparent, accountable, and equitable governance. Greater public involvement ensures that local development policies align more closely with community needs. Participation also plays a vital role in monitoring the effectiveness of regional governance (Jandal & Masango, 2024). According to Law Number 25 of 2009, public services are designed to meet community needs in accordance with regulations, prioritize public interests, streamline administrative processes, and enhance citizen satisfaction. Innovations such as the Sinjai Public Service Center integrate government, administrative, and private sector services into a single location, facilitating fast, accessible, affordable, safe, and convenient services. Effective interaction between the government and the public significantly improves service quality, while fair public service processes reflect respect for human rights, which are fundamental in democratic states like Indonesia (Kelsen, 2017).

To support digital transformation, Presidential Instruction Number 3 of 2003 on E-Government Development Policy and Strategy mandates the optimization of information technology in government management systems and work processes. E-Government seeks to ensure that public services are easily and affordably accessible to all citizens (Shaxnozal, 2024). In Sinjai Regency, data indicates varying levels of community participation in Public Service Malls across different districts. In 2023, the highest participation rate was recorded in East Sinjai District (14%), while the lowest was in Pulau Sembilan District (7%). By 2024, participation in East Sinjai decreased slightly to 13%, whereas *Pulau Sembilan* saw an increase to 9%.

Figure 1.

Chart of the Level of Community Participation in the Public Service Mall alt Sinjai Regency



Source: Sinjai Regency Public Service Mall Year 2023 – 2024

Figure 1 illustrates the level of community participation in Sinjai Regency across nine districts. In 2023, East Sinjai recorded the highest level of participation at 14%, which slightly decreased to 13% in 2024. Sinjai Borong had a participation rate of 12% in 2023, increasing to 14% in 2024. Tellu Limpoe maintained a steady participation rate of 12% in both years. Bulupoddo saw a decline from 13% in 2023 to 10% in 2024, while West Sinjai increased from 11% to 12%. North Sinjai experienced a slight rise from 10% to 11%, whereas Central Sinjai declined from 11% to 10%. South Sinjai saw a decrease from 10% in 2023 to 9% in 2024. Lastly, Pulau Sembilan recorded the lowest participation rate at 7% in 2023 but increased to 9% in 2024.

The implementation of Presidential Instruction Number 3 of 2003 and Regulation Number 24 of 2013 has accelerated the adoption of e-government, transforming interactions between regional governments and communities to improve public service quality. E-government eliminates bureaucratic barriers by creating a unified management system that streamlines access to information and services. Key features of e-government include 24/7 availability, accessibility, and convenience, allowing users to interact with services at any time. However, inadequate accessibility can hinder its overall success and efficiency (Moroiainu Zlatescu & Marinica, 2022; Didin et al., 2024).

Despite the introduction of Public Service Malls and e-government systems, several challenges remain, such as unsatisfactory public service standards, suboptimal service models, and limited sectoral integration (Slavovna, 2023). One of the main issues is low community participation in certain areas. The e-government system is intended to simplify public access to services, including administrative tasks such as birth and death certificates and domicile transfers. With real-time data management, citizens should be able to monitor service progress without visiting government offices in person (Wahyuni, 2024).

Various studies emphasize the importance of service quality and electronic trust (e-trust) in enhancing public satisfaction and loyalty to e-government services (Qatawneh et al., 2024). However, in some countries, even with high public participation, the quality of public services—particularly in health and education—remains questionable (Muchunguzi, 2023). Furthermore, the concept of e-government has garnered significant interest from both academics and practitioners. E-government initiatives have reshaped how government institutions communicate, share information, collaborate, and interact with citizens (Aldnan et al., 2022). This highlights a gap between public participation levels and the actual quality of services provided.

Literature Review

Service Quality

Service quality is an outcome that must be achieved through actions that leave a positive impression and can be experienced and remembered. As a result, consumers become more engaged with a company's products and services (Wirtz & Lovelock, 2021). Service quality is a dynamic condition closely related to products, services, human resources, and the environment, which should at least meet or even exceed expected service standards (Liu et al., 2022). According to Park and Lee (2023), service quality refers to efforts made to fulfill customer needs with precision and sincerity in its delivery to meet customer satisfaction expectations. It is an action offered by one party to another, which, while intangible, can be felt. Essentially, service involves the actions taken by sellers to meet the needs and desires of buyers or customers, aiming to achieve customer satisfaction (Morgan et al., 2019).

Service quality can be categorized into two types: good service quality and poor service quality. It is not a fixed concept but rather a flexible and evolving one. Changes in service quality are necessary to ensure continuous improvement and maintenance of high standards. The process of enhancing service quality requires several key elements, including customer observations, which consist of inputs, opinions, and feedback regarding the services provided and received. Service quality can be considered a measure of customer satisfaction. The level of customer satisfaction is determined by comparing the service received with the service expected. Therefore, improving aspects of customer satisfaction related to service quality is essential. Various factors contribute to service quality, including ease of ordering, speed of service, competence, and attitude, which are reflected through direct behavior and interactions with consumers (Bruhn, 2023).

E-Government System

E-Government refers to the administration of government functions using information technology and telecommunications to enhance government performance while ensuring transparency and accountability in financial information, ultimately achieving good governance. E-Government can be applied to legislative, judicial, or public administration sectors to improve internal efficiency, deliver public services, and support democratic governance processes (Baltool et al., 2021).

The World Bank Group defines E-Government as: "the use of information technologies (such as Wide Area Networks, the Internet, and mobile computing) by government organizations to establish relationships with citizens, businesses, and other governmental entities" (Alsial, 2022). Similarly, the United Nations Development Program (UNDP) offers a more concise definition: "E-Government is the application of information and communication technology (ICT) by government agencies" (Korcheval, 2023).

Beyond institutional definitions, experts have also provided their perspectives on E-Government. Zalbukovsek et al. (2021) define it as "the provision of information, services, or products electronically by the government, without limitations on time or place, offering greater participation opportunities for all groups." Additionally, Grigalashvili (2022) notes that each country defines E-Government differently. The United States Federal Government provides a straightforward definition: "E-Government refers to the delivery of government information and services online through the Internet or other digital means."

New Zealand, an island nation in the southwest Pacific Ocean, defines E-Government as "a way for governments to use new technology to serve the public by providing easy access to government services and information, and also to improve the quality of services and provide opportunities for participation in democratic processes and institutions" (Aldie et al., 2024). The existence of electronic government is expected to bring optimal benefits in the government environment to realize public services and good governance for all communities. In this regard, Mensalh (2020) reviewed the benefits of E-Government as follows:

1. Improve transparency, control, and accountability in governance with the aim of achieving good governance in government.
2. Enhance the quality of government services to stakeholders (society, business, and industry), particularly in terms of effectiveness and efficiency across various fields of state life.
3. Reduce administrative costs incurred by the government and its stakeholders for

daily activities.

4. Increase the speed and accuracy of responses to public requests and inquiries regarding public services.
5. Provide access to services for all departments and Non-Departmental Government Institutions (LPND) at all levels.
6. Assist local and national economies.
7. Create opportunities for the government to obtain new sources of revenue through interactions with various interested parties.
8. Ensure that feedback channels are open and free from fear or favoritism.
9. Foster a community environment that is responsive to all problems arising from changing global trends.
10. Empower the community and other parties as government partners in the decision-making process of various public policies in a democratic manner.

Community Participation

The concept of participation is often associated with involvement and engagement. Keith Davis, as cited by Singh (2022), defines participation as follows: "Participation can be defined as mental, intellectual, moral, or emotional involvement in a group situation that encourages individuals to contribute to the group's goals and take responsibility for the efforts concerned." From this perspective, participation is not solely about physical involvement in activities; it also includes self-engagement, fostering a greater sense of responsibility and contribution within a group.

Similarly, Shetunyenga (2024) states: "A person who participates experiences involvement that goes beyond just performing tasks or physical engagement; it includes their thoughts and emotions." This highlights that participation encompasses self-involvement rather than merely physical presence in tasks. In reality, the three aspects of participation—mental, emotional, and physical—are interconnected and support one another. In societal, national, and governmental contexts, participation is often linked to efforts in supporting development programs.

According to the United Nations, Aldams and Paul (2023) define participation as "a form of active and meaningful involvement of the population at various levels," which includes: (a) engaging in decision-making processes to determine societal goals and allocate resources to achieve them, (b) voluntarily implementing programs and projects, and (c) utilizing the outcomes of these initiatives. This definition suggests that communities should be involved in every stage of development, from planning and preparation to implementation and benefit utilization (Aldams & Paul, 2023).

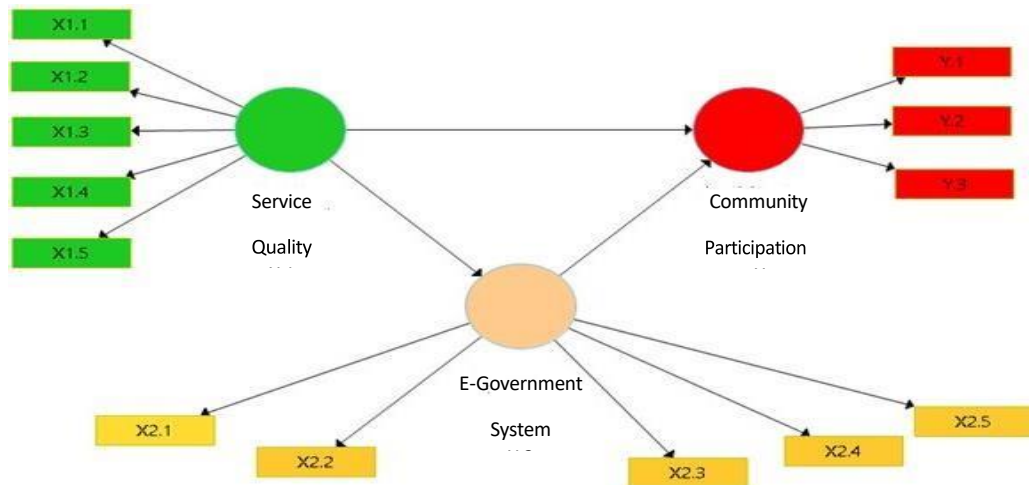
This study provides a comprehensive understanding of the interrelationship between service quality, the e-government system, and community participation. It highlights the critical role of service quality in meeting customer expectations and enhancing satisfaction, which, in turn, shapes public perception of service providers.

Additionally, the study emphasizes that community participation is a key factor in the success of public service initiatives. It explores the essential prerequisites for effective participation and explains how active involvement in decision-making, implementation, and utilization of services can empower communities and improve governance outcomes.

By examining the dynamic interactions between these three components, this research offers valuable insights into how they collectively contribute to better public services,

stronger governance, and increased public trust.

Figure 2.
Variable Framework and Research Indicators



Source: Data processed using Partial Least Squares (PLS-3), 2024.

Hypothesis

Service Service Quality Against E-Government System

Service quality has a significant and positive impact on the e-government system, with e-trust and e-satisfaction serving as mediating factors in the relationship between e-service quality and e-loyalty within the context of e-government services (Qatawneh et al., 2024). Additionally, the study examines the moderating effect of smart government awareness in shaping e-service quality, particularly in relation to the quality of information systems among Dubai police officers (Mahdi & Bin Bohari, 2022).

H1: Service quality has a significant effect on the e-government system's service quality regarding community participation.

Research in Tanzania explores the paradox of high public participation levels despite the perceived low quality of health and education services (Muchunguzi, 2023). Similarly, as part of administrative reforms in Bangladesh, many urban local governments have established public service centers, such as Pourashava Digital Centers (PDCs), where Information and Communication Technology (ICT) is used to enhance accessibility, efficiency, and transparency of electronic services. A study examines service quality, satisfaction, and continued use intention of PDCs, incorporating citizen participation as a moderating factor (Biswas et al., 2024). Additionally, research on the Union Digital Center (UDC) in Bangladesh assesses service quality and satisfaction while adopting citizen participation as a moderator, using the DeLone and McLean Information System Success Model (D&M IS) as its theoretical foundation (Biswas & Roy, 2020).

H2: Service quality has a significant effect on the community participation system of the e-government system.

A study reviewed previous literature to explore challenges related to e-participation within e-government initiatives and examined how these issues influence the success of such projects (Aldnan et al., 2022). Additionally, the research proposed a conceptual

framework incorporating various e-government implementation and evaluation variables, which were applied to analyze chatbots used for public services at national, regional, and local levels in Spain (Cortes-Cediel et al., 2023).

Moreover, information technology has created new opportunities for local governments to enhance tools and strategies for citizen participation and engagement. Electronic interactions between municipalities and citizens can vary across different regions. A study in Portugal investigates how municipal characteristics influence the adoption of participatory processes and channels through e-government initiatives to foster greater public engagement and interaction with society (Tejedo-Romero et al., 2022).

RESEARCH METHODS

The research was conducted at the Sinjai Regency Public Service Mall from May to June 2024. Data collection was carried out through surveys using questionnaires distributed to 150 respondents who had utilized the public service mall from various villages and sub-districts in Sinjai Regency. The respondents were selected using the Probability Sampling method, specifically Cluster Random Sampling, to ensure a representative sample from different regional areas. The questionnaire used has been tested for validity and reliability. Data analysis in this study was conducted using the Partial Least Squares (PLS) analysis program, which is suitable for examining complex relationships between variables and assessing both measurement and structural models.

Inclusion Criteria:

1. Residents of Sinjai Regency who are aged 18 years or older.
2. Respondents who have accessed or used the services of the Sinjai Regency Public Service Mall at least once.
3. Individuals who are willing to participate and provide informed consent for the study.
4. Respondents who are permanent residents of one of the 9 sub-districts in Sinjai Regency.

Exclusion Criteria:

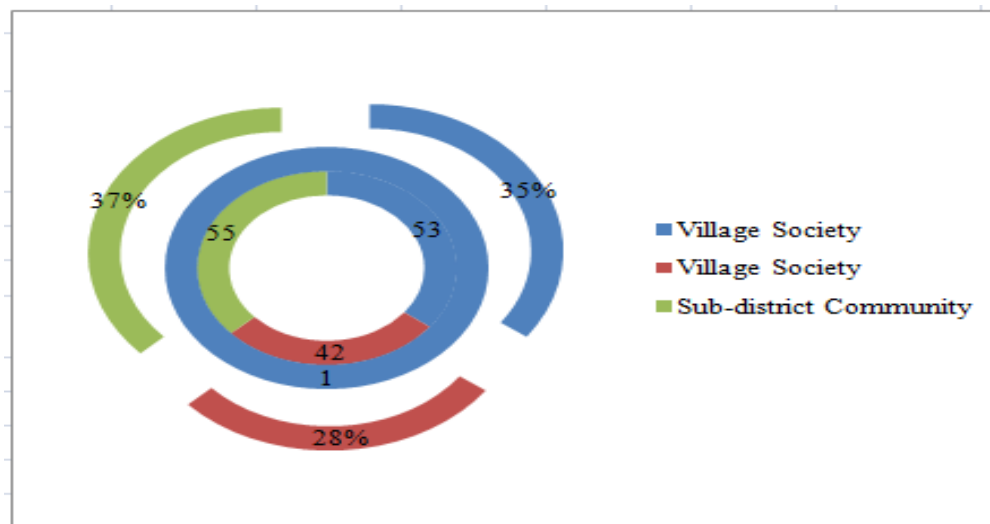
1. Residents who are not familiar with or have never accessed the Sinjai Regency Public Service Mall services.
2. Individuals who are unable or unwilling to complete the questionnaire.
3. Temporary residents or visitors who do not permanently reside in Sinjai Regency.
4. Respondents with incomplete or invalid questionnaire responses.

RESULTS AND DISCUSSIONS

Respondent Characteristics

The following is a chart illustrating community samples at the village, district, and sub-district levels in Sinjai Regency, South Sulawesi.

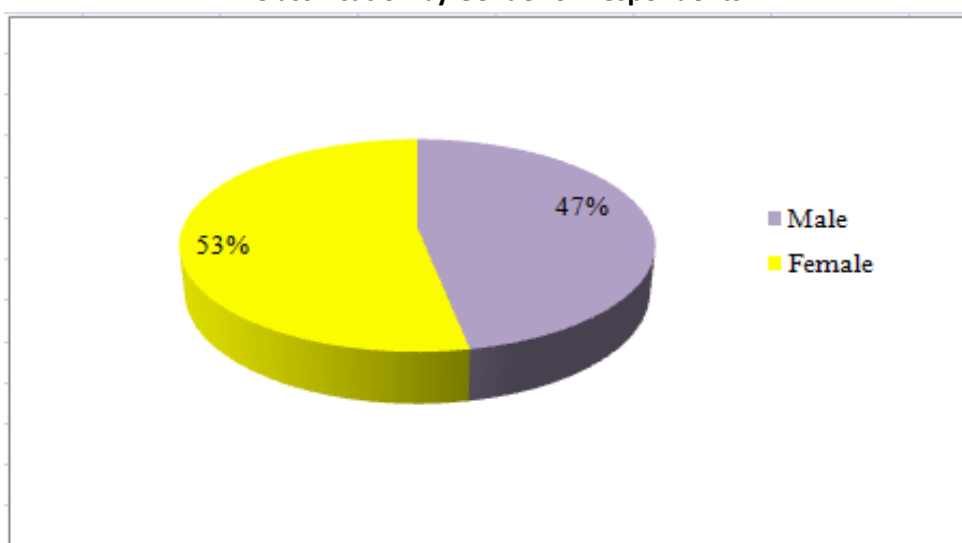
Figure 3.
Classification Based on Respondent Sample



Source: Data processed by community respondents from village, district, and sub-district levels of Sinjai District (N=150), 2024.

Figure 3 shows that based on a population of 255,853, a sample of 150 respondents was collected, consisting of the following: community respondents at the village level total 53 (35%), community respondents at the district level total 42 (28%), and community respondents at the sub-district level total 55 (37%).

Figure 4.
Classification by Gender of Respondents

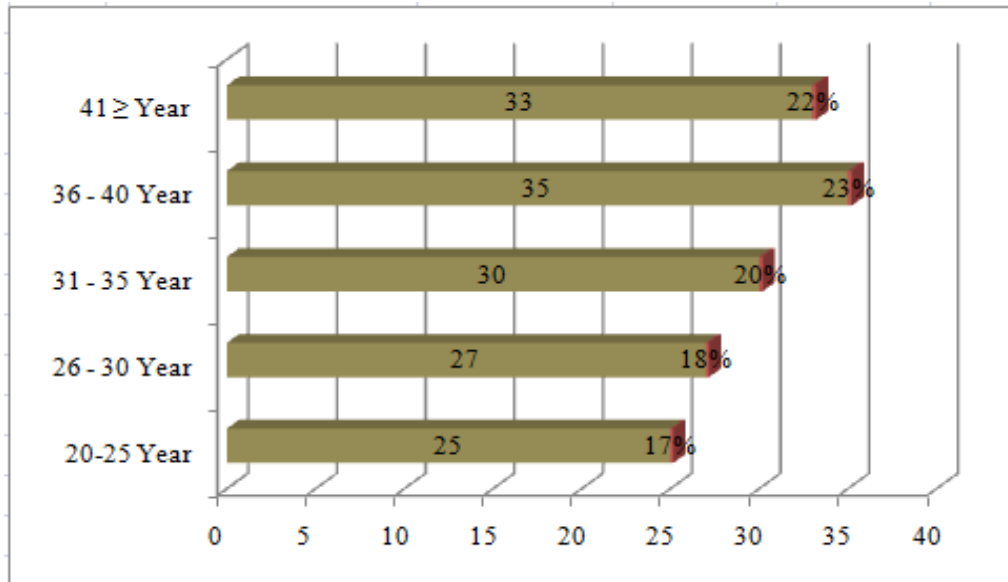


Source: Data processed by community respondents from village, district, and sub-district levels of Sinjai District (N=150), 2024.

Figure 4 shows that based on the gender of the respondents, the distribution is as follows: the majority are female, with 80 respondents (53%), while male respondents total 70 (47%).

Figure 5.

Figure 5. Classification by Age Level of Respondents

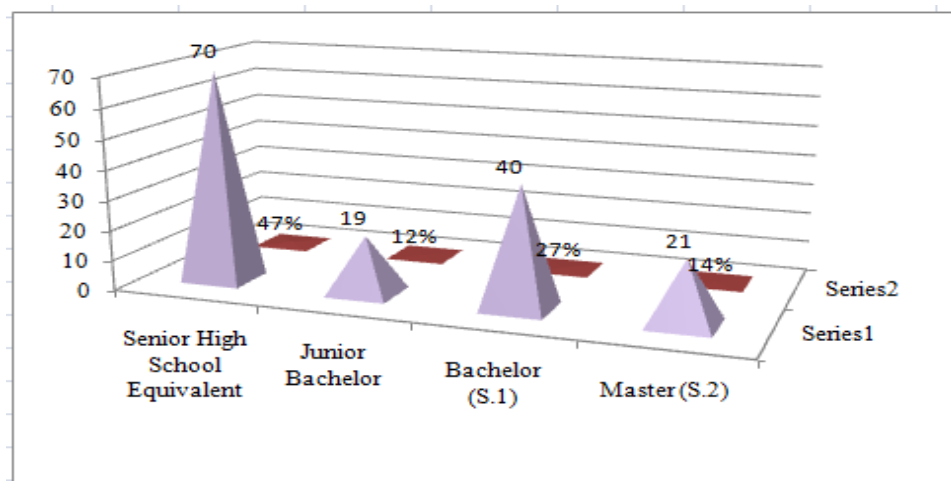


Source: Data processed by community respondents from village, district, and sub-district levels of Sinjai District (N=150), 2024.

Figure 5 shows that based on the age level of the respondents, the distribution is as follows: Ages 20 to 25 years: 25 respondents (17%), Ages 26 to 30 years: 27 respondents (18%), Ages 31 to 35 years: 30 respondents (20%), Ages 36 to 40 years: 35 respondents (23%), Ages 41 years and over: 33 respondents (22%).

Figure 6.

Classification by Education Level Respondents



Source: Data processed by community respondents from village, district, and sub-district levels of Sinjai District (N=150), 2024.

Figure 6 shows that based on the level of education of the respondents, the distribution is as follows: 70 respondents (47%) have a general high school level equivalent, 19 respondents (12%)

have a diploma or bachelor's degree, 40 respondents (27%) hold a bachelor's degree, and 21 respondents (14%) have a master's degree.

Results

The following table presents the results of validity and reliability testing using the Partial Least Squares (PLS-3) software program. This test assesses whether the indicators used are effective in measuring each variable. Common indicators for validity and reliability tests in SEM PLS include Composite Reliability, Cronbach's Alpha, and Average Variance Extracted (AVE). A good indicator has a value above 0.6 (Memon et al., 2021).

Table 1.
Construct Validity and Reliability

Variable	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Service Quality (X.1)	0,742	0,767	0,824	0,690
E-Government System (X.2)	0,848	0,847	0,909	0,769
Community Participation (Y)	0,736	0,751	0,824	0,686

Source: Data processed using Smart Partial Least Squares (PLS-3), 2024.

Table 1 reveals that the service quality variable has a Cronbach's alpha of 0.742, a rho_A of 0.767, a composite reliability of 0.824, and an average variance extracted (AVE) of 0.690. The E-Government system has a Cronbach's alpha of 0.848, a rho_A of 0.847, a composite reliability of 0.909, and an AVE of 0.769. Additionally, the public participation variable, which includes community participation, has a Cronbach's alpha of 0.736, a rho_A of 0.751, a composite reliability of 0.824, and an AVE of 0.686. All composite reliability and Cronbach's alpha values are above 0.6, and the average variance extracted values are above 0.5, indicating that all indicator items are declared valid and reliable (Memon et al., 2021).

The coefficient of determination is used to assess the contribution of the independent variable in explaining its relationship with the dependent variable. This is done by examining the R-squared statistical value in each variable relationship (Memon et al., 2021).

Table 2.
R-Squared Test (Determination Test)

Variable	R-Square	R-Square Adjusted
Service Quality (X.1)	0,538	0,531
E-Government System (X.2)	0,574	0,571

Source: Data processed using Smart Partial Least Squares (PLS-3), 2024.

Table 2 reveals that the service quality variable has an R-squared value of 0.534 and an adjusted R-squared of 0.531. The E-Government system variable has an R-squared value of 0.574 and an adjusted R-squared of 0.571. The R-squared values for the service quality and E-Government system variables are 0.538 and 0.574, respectively. This indicates that the service quality and E-Government system variables contribute to explaining the public participation variable by 95.5%, while the remaining 4.5% of the contribution is attributed to other variables outside the model (Memon et al., 2021).

To test the suitability of the model, several statistical indicators are used, including Standardized Root Mean Square Residual (SRMR), Normed Fit Index (NFI), and RMS_theta. For the model to be considered suitable, these indicators must meet the following criteria: SRMR < 0.08; NFI > 0.90; and RMS_theta close to zero (Sarrstedt et al., 2019).

Table 3.
Model Fit Test

	Saturated Model	Estimated Model	RMS_Theta
SRMR	0.191	0.191	
d_uls	3.311	3.311	
d_g	2.491	2.491	0,430
Chi-Square	1435.172	1435.172	
NFI	0.321	0.321	

Source: Data processed using Smart Partial Least Squares (PLS-3), 2024.

Based on Table 3, it is obtained that the SRMR value is 0.0191, which is less than 0.08. In addition, the NFI value of 0.321 is less than 0.900. The resulting RMS_theta (d_g) value is 0.430, which is also above the value of 0. From these three indicators, it can be concluded that the model formed has met the suitability criteria, indicating that the model is good for describing the data and the relationships between variables (Sarrstedt et al., 2019).

There are two relationships in the formulation of the SEM model: the direct relationship (direct effect) and the indirect effect. The relationship between variables is significant if the t-statistic p-value is less than the 5% significance level (Ringle et al., 2015). The relationships can be seen in the following output.

Table 4.
Path Coefficient (Direct Relationship)

Variable	Original Sample	Sample Mean	Standard Deviation	T-Statistic	P-Value
Service Quality (X.1) → Community Participation (Y)	0,057	0,031	0,016	5,280	0,000
E-Government System (X.2) → Community Participation (Y)	0,023	0,027	0,017	7,790	0,000

Source: Data processed using Smart Partial Least Squares (PLS-3), 2024.

It can be seen in the table output above that the entire direct relationship (direct effect) of all service quality variables on community participation, as well as the E-Government system on community participation, has a p-value of 0.000, which is less than the significance level of 0.05. Therefore, these results are significant (Ringle et al., 2015).

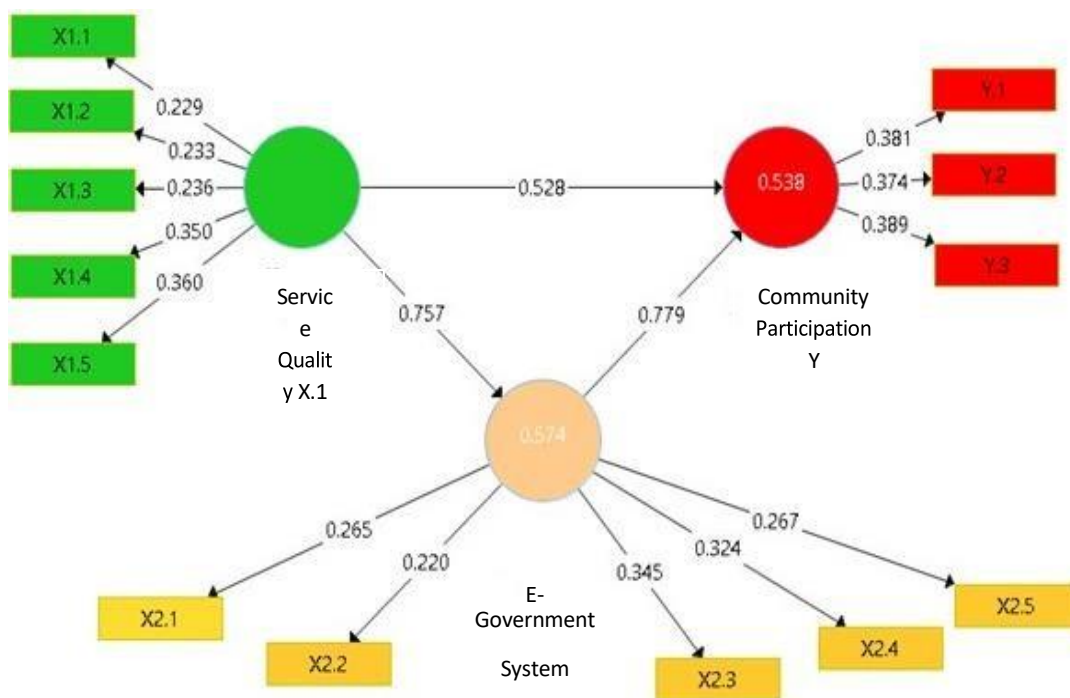
Table 5.
Indirect Relationship

Variable	Original Sample	Sample Mean	Standard Deviation	T-Statistic	P-Value
Service Quality (X.1) → E-Government Syatem (X.2)	0,067	0,043	0,027	7,570	0,005

Source: Data processed using Smart Partial Least Squares (PLS-3), 2024.

It can be seen in the output of Table 5 above that the indirect relationship (indirect effect) of the service quality variable on the E-Government system has a p-value of 0.005, which is equal to the significance level of 0.05, indicating that it is significant (Ringle et al., 2015).

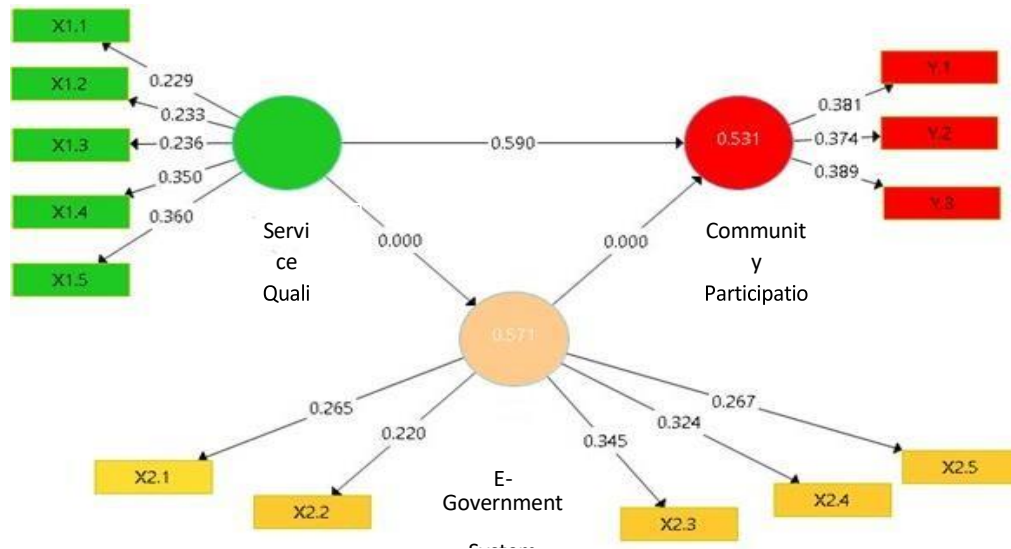
Figure 7.
Path Diagram Accompanied by Loading Factor Values (T-Value)



Source: Data processed using Smart Partial Least Squares (PLS-3), 2024.

Based on Figure 7 above, the output shows that service quality variables, with indicators of tangibles, reliability, responsiveness, empathy, and assurance, have a t-value of 7.570 in relation to the E-Government system. The service quality variables related to community participation, with indicators such as community participation capture groups, the ability of the community to engage in the process, and community activities to express opinions, have a t-value of 5.280. The E-Government system variables, with indicators of policies, institutions, infrastructure, applications, and planning, show a t-value of 7.790 (Ringle et al., 2015). The following is a depiction of the path model (p-value), and the results of this research model can be described as shown in Figure 8:

Figure 8.
Path Diagram with Loading Factor Values (P-Values)



Source: Data processed using Smart Partial Least Squares (PLS-3), 2024.

Based on Figure 8, the output indicates that N, or the amount of research data, is 150. The significance value (2-tailed) is 0.000. This serves as the basis for the decision-making above, leading to the conclusion that there is a significant relationship between service quality and the E-Government system, with a significance level of the loading factor value at 0.000. Additionally, service quality has a significant loading factor value of 0.005 on community participation, and the E-Government system also shows a significant loading factor of 0.000 on community participation (Ringle et al., 2015). The following is a total effect table to address the hypothesis testing:

Table 6.
Total Effect

Variable	Service Quality (X.1)	Community Participation (Y)	E-Government system (X.2)
Service Quality (X.1)		0,528	0,757
E-Government System (X.2)			
Community Participation (Y)		0,779	

Source: Data processed using Partial Least Squares (PLS-3), 2024.

From the total effect table above, the following conclusions can be drawn from the hypothesis testing:

The first hypothesis tests whether service quality indirectly has a positive effect on the E-Government system. The test results show that the beta coefficient of service quality on the E-Government system is 0.528, and the t-statistic is 7.570. These results indicate that the t-statistic is significant because it is greater than 1.96, with a p-value of 0.000 (which is less than 0.005). Therefore, the first hypothesis is accepted. This proves that service quality has a positive influence on the E-Government system.

The second hypothesis tests whether service quality has a direct positive effect on community participation. The test results show that the beta coefficient of service quality on community participation is 0.757, and the t-statistic is 5.280. These results indicate that the t-statistic is significant because it is greater than 1.96, with a p-value of 0.000 (which is less than 0.005). Therefore, the second hypothesis is accepted. This proves that service quality has a direct positive influence on community participation.

The third hypothesis tests whether the E-Government system has a direct positive effect on community participation. The test results show that the beta coefficient of the E-Government system on community participation is 0.779, and the t-statistic is 7.790. These results indicate that the t-statistic is significant because it is greater than 1.96, with a p-value of 0.000 (which is less than 0.005). Therefore, the third hypothesis is accepted. This proves that the E-Government system has a direct positive influence on community participation.

Discussion

Service Quality affects the E-Government System

The research results show that service quality indirectly (indirect effect) has a positive impact on the e-government system at the Sinjai Regency Public Service Mall, with an original sample value of 0.067, a T-Statistic value of $7.570 > 1.96$, and a p-value of $0.000 < 0.005$. This means that if service quality is well implemented, it will affect the e-government system. The success of the e-government system is inseparable from how the quality of service is applied by the Regional Government at the Sinjai Regency Public Service Mall. This service quality includes aspects such as tangibles, reliability, responsiveness, empathy, and assurance as a form of service fulfillment to the community. Given the research findings that show service quality influences the e-government system, the Sinjai Regency Public Service Mall must be able to provide services in the form of an e-government system that includes policies, institutions, infrastructure, applications, and planning.

The Path Diagram test results, along with the variable Loading Factor values, reveal that service quality is measured through indicators such as tangibles, reliability, responsiveness, empathy, and assurance. Meanwhile, the e-government system is assessed using indicators such as policies, institutions, infrastructure, applications, and planning. According to research by Qatawneh et al. (2024), the quality of electronic services significantly and positively impacts electronic loyalty. Electronic service quality also has a substantial effect on electronic trust and satisfaction, both of which significantly influence e-loyalty. Additionally, e-trust positively affects e-satisfaction. This study also highlights that e-trust and e-satisfaction partially mediate the relationship between e-service quality and e-loyalty in the context of e-government services, leading to the acceptance of all proposed hypotheses. Another study examined the moderating role of smart government awareness in shaping e-service quality based on information system quality factors, particularly among Dubai police officers (Mahdi et al., 2022). These findings emphasize the critical need to enhance the quality of e-government through improved e-services, enabling both the public and private sectors to efficiently access integrated government services via the internet and online platforms (Noori, 2022). One of the main challenges is the limitation of human resources (HR), which lack competence in information technology. Many regional government officials, especially at the village level, are not yet accustomed to using digital systems in administrative governance. Additionally, inadequate technological infrastructure is also a challenge, as many villages still do not have official websites or digital information systems. The limited internet access in some areas further worsens the situation, making it difficult for communities to access e-government services optimally.

Besides technical factors, other obstacles include the lack of regulations and policies mandating the comprehensive implementation of e-government at the village level. Without clear rules, digitalization initiatives progress slowly and without direction. Resistance to change is also a challenge, both among government officials and the public, who are still more comfortable with conventional methods. The low level of digital literacy in society prevents them from fully understanding the benefits of e-government services, resulting in minimal participation. To address these issues, the local government needs to enhance HR training, strengthen digital infrastructure, and conduct extensive socialization to prepare the community and encourage them to utilize digital services in their daily lives.

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understanding the benefits of e-government services, resulting in minimal participation. To address these issues, the local government needs to enhance HR training, strengthen digital infrastructure, and conduct extensive socialization to prepare the community and encourage them to utilize digital services in their daily lives.

Service quality affects community participation

The results showed that service quality directly and positively influenced community participation in the Sinjai Regency Public Service Mall, with an original sample value of 0.057. The T-statistic value was 5.280, which is greater than 1.96, and the p-value was 0.005, which is less than 0.005. This means that if the quality of service is improved, it will positively affect community participation. The achievement of community participation is inseparable from the quality of service provided by the Regional Government at the Sinjai Regency Public Service Mall. Service quality encompasses various dimensions, including tangibles, reliability, responsiveness, empathy, and assurance, all of which contribute to fulfilling the needs of the community. Given the research results indicating that service quality affects community participation, the Sinjai Regency Public Service Mall must be able to provide services that encourage community involvement. This includes engaging community groups, facilitating the community's ability to participate in processes, and providing opportunities for residents to express their opinions and contribute to community activities.

The Palth Diagram test results, along with the loading factor values, indicate that the service quality variable is evaluated through indicators such as tangibles, reliability, responsiveness, empathy, and assurance. Meanwhile, community participation is measured using indicators like community participation capture groups, the community's ability to engage in processes, and activities for expressing opinions. As highlighted by Muchunguzi (2023), citizen participation is a process that allows private individuals to influence public decisions, serving as a longstanding element of democratic decision-making. The implementation of e-Government in tax services must adhere to established rules and guidelines, as its success depends on key factors such as thorough planning, sufficient infrastructure, and efficient allocation of budgets and resources to achieve optimal results (Widyalstuti et al., 2024).

To enhance the delivery of quality social services, it is recommended to strengthen community engagement. For improving the service quality of Public Digital Centers (PDC), all dimensions of service quality should be revised, and both administrative systems and citizen participation should be encouraged in every aspect of the service (Biswals et al., 2024). Similarly, studies on service quality, satisfaction, and usage intention of Union Digital Centers (UDC) in Bangladesh emphasize the moderating role of citizen participation. This research measures service quality based on satisfaction, using citizen participation as a moderating factor, and is grounded in the DeLone & McLean Information System Success Model (D&M IS). To enhance UDC service quality, modifications across all dimensions of service quality are necessary, along with the development of administrative systems and active citizen participation in service delivery (Biswals & Roy, 2020).

E-Government Systems affect Community Participation

The research findings indicate that the e-government system has a direct positive impact on community participation at the Sinjai Regency Public Service Mall, with an original sample value of 0.023, a T-Statistic value of 7.790 > 1.96, and a p-value of 0.000 < 0.005. This suggests that the implementation of the e-government system will influence the level of community participation. The success of public participation is closely linked to how the e-government system is implemented by the Regional Government at the Sinjai Regency Public Service Mall.

This system encompasses policies, institutions, infrastructure, applications, and planning, serving as a means to fulfill services for the community. Based on research indicating that the e-government system influences community participation, the Sinjai Regency Public Service Mall must be equipped with services that encourage community involvement, such as participation capture groups, service delivery capabilities, and planning capacity. Additionally, it is essential to enhance community engagement in the decision-making process and create opportunities for them to express their opinions through various activities.

The results of the Path Diagram test and Loading Factor values indicate that the e-government system variable includes indicators such as policies, institutions, infrastructure, applications, and planning. Meanwhile, the community participation variable is measured through indicators such as participation capture groups, the community's ability to engage in processes, and activities for expressing opinions. Performance expectations, effort expectations, facilitating conditions, and service quality have also been identified as promising predictors of satisfaction with e-government services, warranting further research (Aldnan et al., 2022).

Several studies highlight trends and challenges in the development and evaluation of chatbots for public administration. The primary focus of these developments is on information retrieval and service access, while aspects of consultation and collaborative efforts with citizens are often overlooked. Additional challenges include limited evaluations of prototypes and insufficient experimentation with metrics related to public value creation. To address these gaps, two innovative chatbots were developed and tested to enhance access to open government data and foster community participation (Cortes-Cediel et al., 2023).

Furthermore, research explores how the characteristics of municipalities in Portugal influence the implementation of participatory processes and channels through e-government initiatives to enhance citizen engagement and public interaction. Findings indicate that municipalities have demonstrated an increasing commitment to online initiatives for citizen participation over the years, with larger municipalities being more likely to adopt such mechanisms. Population size has been found to significantly influence both information dissemination and the adoption of participatory mechanisms. These findings align with stakeholder theory and political cost theory (Tejedo-Romero et al., 2022).

Although the e-government system has been implemented, various challenges remain in increasing public participation, such as a lack of awareness and digital literacy, which makes many people reluctant to use the services, as well as limitations in infrastructure and technology access in certain areas that hinder its utilization. Additionally, low trust in the government due to perceptions of a lack of transparency and responsiveness also acts as a barrier, compounded by the absence of interactive features and feedback mechanisms on e-government platforms, which results in passive public participation. Other factors, such as low levels of education and socio-economic status, further contribute to the lack of understanding and skills needed to use digital services. To overcome these challenges, local governments need to adopt a more inclusive approach by enhancing digital education, expanding technological infrastructure, and developing interactive mechanisms that can build trust and increase public engagement, ensuring that e-government can be optimized to promote public participation in government services.

CONCLUSIONS

The findings of this study conclude that service quality, the e-government system, and community participation are interconnected and play a crucial role in enhancing the effectiveness of public services at the Sinjai Regency Public Service Mall. However, several

challenges persist in increasing public participation, including a lack of awareness and digital literacy, which makes many individuals hesitant to use e-government services. Additionally, limitations in infrastructure and technology access in certain areas hinder effective utilization. Low trust in the government, driven by perceptions of insufficient transparency and responsiveness, further discourages public involvement. This issue is exacerbated by the absence of interactive features and feedback mechanisms on e-government platforms, resulting in passive participation.

To address these challenges, local governments must continuously improve service quality by strengthening digital infrastructure, providing training for personnel, and developing user-friendly applications. Furthermore, policies that actively involve the community in planning and decision-making processes should be reinforced to sustain active public participation. These efforts will significantly contribute to achieving inclusive development goals and enhancing public satisfaction with government services.

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