

The Impact of E-Government Implementation Through the *Sentuh Tanahku* Application on the Quality of Public Services at the Sidenreng Rappang Regency Land Office

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Abstract. This study aims to analyze the implementation of e-government through the *Sentuh Tanahku* application and to determine its effect on the quality of public services at the Land Office of Sidenreng Rappang Regency. This research is motivated by the utilization of digital technology in land services through the *Sentuh Tanahku* application as a form of e-government implementation aimed at improving the effectiveness, efficiency, and quality of public services. This study employed a quantitative method with a descriptive and verificative approach. The population consisted of 170 verified users of the *Sentuh Tanahku* application, with a sample of 63 respondents. The sample was determined using the Slovin formula and purposive sampling technique. Data were collected through observation, questionnaires, and literature review. The collected data were then analyzed using descriptive statistics and simple linear regression with the assistance of IBM SPSS Statistics 21. The results showed that the implementation of e-government through the *Sentuh Tanahku* application was categorized as good, with a percentage of 73.4%. This finding indicates that the aspects of support, capacity, and value had been implemented well in supporting the provision of public services at the Land Office of Sidenreng Rappang Regency. Furthermore, the results of the simple linear regression analysis showed that the implementation of e-government through the *Sentuh Tanahku* application had a positive and significant effect on the quality of public services. The coefficient of determination (R Square) was 0.459, indicating that the implementation of e-government contributed 45.9% to the quality of public services, while the remaining 54.1% was influenced by other factors not examined in this study. The t-test results showed a t-value of 7.196 with a significance level of 0.000 (< 0.05), indicating that the research hypothesis was accepted. Therefore, it can be concluded that the implementation of e-government through the *Sentuh Tanahku* application has been carried out well and has a significant effect on improving the quality of public services at the Land Office of Sidenreng Rappang Regency.

Keywords: *E-Government, Touch Tanahku, Public Service Quality, Land Services, Digital Services.*

A. INTRODUCTION

The rapid development of information and communication technology in the era of globalization has brought significant changes to various aspects of life, including the delivery of public services by government institutions. Service mechanisms that were previously implemented conventionally through document-based or paper-based administration have gradually shifted toward digital systems that utilize information technology. This transformation has contributed to the emergence of e-government as an approach to improving the quality, effectiveness, and efficiency of public service delivery.

The implementation of e-government in Indonesia began to develop following the issuance of Presidential Instruction No. 3 of 2003 on the National Policy and Strategy for E-Government Development. Through this policy, government institutions at both central and local levels were encouraged to utilize information technology as a means of improving efficiency, transparency, and accountability in government administration (Ritonga et al., 2025). The implementation of e-government in Indonesia has been further strengthened through various regulations that provide a legal foundation for digital-based public service delivery. One of these is Law No. 11 of 2008 on Electronic Information and Transactions

(ITE), which was subsequently amended by Law No. 1 of 2024. This legislation regulates the use of information technology in various governmental activities, including the delivery of electronic public services. In addition, Law No. 14 of 2008 on Public Information Disclosure requires public institutions to provide information that is transparent, accurate, and easily accessible to the public (Sa'adah et al., 2022).

Meanwhile, Law No. 23 of 2014 on Regional Government provides local governments with the authority to manage and develop various forms of innovation in public service delivery based on community needs, including through the utilization of digital technology. Furthermore, Government Regulation No. 71 of 2019 on the Implementation of Electronic Systems and Transactions serves as one of the legal foundations for ensuring the security, reliability, and accountability of electronic systems, particularly in supporting the delivery of public services (Prasetyanto & Nugroho, 2025; Say'ah et al., 2025).

The development of e-government in Indonesia has been further reinforced through Presidential Regulation No. 95 of 2018 on the Electronic-Based Government System (SPBE), which aims to establish clean, effective, transparent, and accountable governance through the utilization of information technology. In addition, Presidential Regulation No. 39 of 2019 on One Data Indonesia regulates the management of government data to ensure its integration, accuracy, and accessibility as a source of information for policymaking and public service delivery. Based on these regulations, e-government is not merely viewed as an innovation in public service delivery but also as part of the government's efforts to establish good governance that is transparent and technology-based (Paradigma, 2023; Noer et al., 2024; Kayati, 2025).

One application of e-government in the land administration sector is Sentuh Tanahku, developed by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN). The application is intended to facilitate public access to various types of land-related information digitally, including certificate status, land parcel locations, and the progress of administrative processes (Putri et al., 2022; Amdar, 2023; Rosidin et al., 2025).

Sidenreng Rappang Regency is one of the areas in South Sulawesi with relatively high land-related activities, particularly in agriculture, settlement development, and infrastructure development. As the center of regional government, Maritengngae District is the location of the Sidenreng Rappang Regency Land Office, which plays a strategic role in providing land administration services to the community. In line with the growing demand for digital transformation in public services, the Sidenreng Rappang Regency Land Office has implemented the Sentuh Tanahku application as a form of e-government implementation (Irwan, Hermansyah, & Uceng, 2023). The application is expected to improve efficiency, transparency, information accuracy, as well as public convenience and accessibility in obtaining land services.

However, based on preliminary observations, the implementation of the Sentuh Tanahku application at the Sidenreng Rappang Regency Land Office has not yet made an optimal contribution to improving public service quality. One of the identified problems is the absence of direct socialization regarding the use of the application among the public, resulting in some users having limited understanding of its functions, procedures, and benefits. Consequently, members of the public still tend to prefer face-to-face services at service counters. From the perspective of service quality, this condition indicates that the responsiveness dimension, particularly in providing information and assistance in using digital services, still needs improvement. In addition, public uncertainty regarding the accuracy and completeness of information provided through the application suggests that the assurance dimension has not yet been fully optimized. Meanwhile, the limited availability of

technical education tailored to the characteristics and capabilities of different users indicates the need to strengthen the empathy dimension in digital-based public service delivery.

On the other hand, data indicate that the number of verified users of the Sentuh Tanahku application at the Sidenreng Rappang Regency Land Office has reached 193 users. This figure indicates that digital land services have begun to be utilized by the community, although their adoption still faces various challenges. Thus, there is a gap between the implementation of digital technology as an instrument of e-government and the quality of services perceived by the public as service users. This condition is important to examine empirically to determine whether the implementation of the Sentuh Tanahku application actually influences public service quality or whether certain aspects of service delivery still need to be improved so that digital transformation can provide greater benefits to the community.

Based on these conditions, this study aims to examine and analyze the effect of e-government implementation through the Sentuh Tanahku application on public service quality at the Sidenreng Rappang Regency Land Office.

B. METHOD

This study was conducted at the Sidenreng Rappang Regency Land Office. This condition enabled the researchers to obtain relevant data regarding the utilization of digital services and public service quality. The study employed a quantitative approach with a descriptive and verificative research design to describe and examine the effect of e-government implementation on public service quality. The independent variable (X) was e-government implementation through the Sentuh Tanahku application, while the dependent variable (Y) was public service quality (Jamaluddin, 2015).

Data were collected through observation and questionnaires distributed to users of the Sentuh Tanahku application. Data analysis was conducted using IBM SPSS, involving validity and reliability tests, descriptive statistical analysis, classical assumption tests consisting of normality, linearity, and heteroscedasticity tests, as well as simple linear regression analysis. Hypothesis testing was performed using the t-test at a 5% significance level ($\alpha = 0.05$), while the coefficient of determination (R^2) was used to determine the extent to which e-government implementation contributed to variations in public service quality.

C. RESULTS AND DISCUSSION

This study employed data analysis to examine the effect of e-government implementation through the Sentuh Tanahku application on public service quality at the Sidenreng Rappang Regency Land Office. The processed data are presented to provide an overview of e-government implementation and its relationship with public service quality. The results of the analysis are presented as follows:

Table 1. Frequency Distribution of the Information and Socialization Indicator of the Sentuh Tanahku Application

No.	Respondent Response	Weight (b)	Frequency (f)	Score (f x b)	Percentage (%)
1	Strongly Agree	4	6	24	10
2	Agree	3	45	135	71
3	Disagree	2	12	24	19
4	Strongly Disagree	1	0	0	0
Total			63	183	100
Mean				2.90	73

Source: Processed questionnaire data, 2026.

Based on the questionnaire data, of the 63 respondents, 6 strongly agreed, 45 agreed, 12 disagreed, and none strongly disagreed. These results indicate that the support indicator (regulatory and policy support) was categorized as good, with an achievement level of 73%.

Table 2. Frequency Distribution of the Ease-of-Use Indicator of the Sentuh Tanahku Application

No.	Respondent Response	Weight (b)	Frequency (f)	Score (f × b)	Percentage (%)
1	Strongly Agree	4	12	48	19
2	Agree	3	35	105	56
3	Disagree	2	16	32	25
4	Strongly Disagree	1	0	0	0
Total			63	185	100
Mean				2.93	73

Source: Processed questionnaire data, 2026.

Of the 63 respondents, 12 strongly agreed, 35 agreed, 16 disagreed, and none strongly disagreed. These findings indicate that the capacity indicator (human resources and digital infrastructure) was categorized as good, with an achievement level of 73%.

Table 3. Frequency Distribution of the Apparatus' Ability to Assist with the Use of the Application

No.	Respondent Response	Weight (b)	Frequency (f)	Score (f × b)	Percentage (%)
1	Strongly Agree	4	4	16	6
2	Agree	3	48	144	76
3	Disagree	2	11	22	18
4	Strongly Disagree	1	0	0	0
Total			63	182	100
Mean				2.88	72

Source: Processed questionnaire data, 2026.

The results show that 4 respondents strongly agreed, 48 agreed, 11 disagreed, and none strongly disagreed. Based on these results, the capacity indicator (human resources and digital infrastructure) was categorized as good, with an achievement level of 72%.

Table 4. Frequency Distribution of the Benefits of the Sentuh Tanahku Application

No.	Respondent Response	Weight (b)	Frequency (f)	Score (f × b)	Percentage (%)
1	Strongly Agree	4	16	64	25
2	Agree	3	34	102	54
3	Disagree	2	12	24	19
4	Strongly Disagree	1	1	1	2
Total			63	190	100
Mean				3.01	75

Source: Processed questionnaire data, 2026.

The questionnaire results indicate that 16 respondents strongly agreed, 34 agreed, 12 disagreed, and 1 strongly disagreed. These findings show that the value indicator (benefits of digital services) was categorized as good, with an achievement level of 75%.

Table 5. Recapitulation of the E-Government Implementation Variable

No.	Indicator	Percentage (%)
1	Support (Regulatory and Policy Support)	73
2	Capacity (Human Resources and Digital Infrastructure)	73
3	Value (Benefits of Digital Services)	75
Average		73

Source: Processed questionnaire data, 2026.

The average percentage across the three indicators of the e-government implementation variable was 73%, which falls into the good category.

Table 6. Frequency Distribution of Service Facilities and Infrastructure

No.	Respondent Response	Weight (b)	Frequency (f)	Score (f x b)	Percentage (%)
1	Strongly Agree	4	6	24	9
2	Agree	3	44	132	70
3	Disagree	2	13	26	21
4	Strongly Disagree	1	0	0	0
Total		-	63	182	100
Mean		-	-	2.88	72

Source: Processed questionnaire data, 2026.

The questionnaire results show that 6 respondents strongly agreed, 44 agreed, 13 disagreed, and none strongly disagreed. Thus, the tangibles (physical evidence) indicator was categorized as good, with an achievement level of 72%.

Table 7. Frequency Distribution of Apparatus Service Accuracy

No.	Respondent Response	Weight (b)	Frequency (f)	Score (f x b)	Percentage (%)
1	Strongly Agree	4	7	28	11
2	Agree	3	44	132	70
3	Disagree	2	11	22	17
4	Strongly Disagree	1	1	1	2
Total		-	63	183	100
Mean		-	-	2.90	73

Source: Processed questionnaire data, June 2026.

The results indicate that 7 respondents strongly agreed, 44 agreed, 11 disagreed, and 1 strongly disagreed. Accordingly, the reliability indicator was categorized as good, with an achievement level of 73%.

Table 8. Frequency Distribution of Apparatus Responsiveness

No.	Respondent Response	Weight (b)	Frequency (f)	Score (f x b)	Percentage (%)
1	Strongly Agree	4	5	20	8
2	Agree	3	48	144	76
3	Disagree	2	10	20	16
4	Strongly Disagree	1	0	0	0
Total		-	63	184	100
Mean		-	-	2.92	73

Source: Processed questionnaire data, 2026.

Of the 63 respondents, 5 strongly agreed, 48 agreed, 10 disagreed, and none strongly disagreed. These findings indicate that the responsiveness indicator was categorized as good, with an achievement level of 73%.

Table 9. Frequency Distribution of Apparatus Friendliness and Attention

No.	Respondent Response	Weight (b)	Frequency (f)	Score (fxb)	Percentage (%)
1	Strongly Agree	4	9	36	14
2	Agree	3	42	126	67
3	Disagree	2	12	24	19
4	Strongly Disagree	1	0	0	0
Total		-	63	186	100
Mean		-	-	2.95	74

Source: Processed questionnaire data, June 2026.

The questionnaire results indicate that 9 respondents strongly agreed, 42 agreed, 12 disagreed, and none strongly disagreed. Based on these results, the assurance and empathy indicators were categorized as good, with an achievement level of 74%.

Table 10. Recapitulation of the Public Service Quality Variable

No.	Indicator	Percentage (%)
1	Tangibles	72
2	Reliability	73
3	Responsiveness	73
4	Assurance & Empathy	74
Average		73

Source: Processed questionnaire data, 2026.

Based on the average percentage across the indicators of the public service quality variable, an overall average score of 73% was obtained, which falls into the good category.

D. CONCLUSION

The implementation of e-government through the *Sentuh Tanahku* application at the Sidenreng Rappang Regency Land Office has been performing well. This indicates that e-government implementation, as measured by indicators of support, capacity, and value, has effectively supported the delivery of public services. However, several aspects still require improvement, particularly in the implementation of outreach and public awareness programs regarding the use of the *Sentuh Tanahku* application.

The implementation of e-government through the *Sentuh Tanahku* application has been shown to have a significant impact on the quality of public services at the Sidenreng Rappang Regency Land Office. This is demonstrated by the coefficient of determination (R Square) of 0.459, indicating that e-government implementation contributes 45.9% to the quality of public services. The remaining 54.1% is influenced by other factors not included in this study. The remaining 54.1% is influenced by other factors outside the scope of this study. Furthermore, the t-test results show a calculated t-value of 7.196 with a significance level of 0.000 (<0.05). The ANOVA test results also showed a calculated F value of 51.776 with a significance level of 0.000. Based on these test results, H_1 was declared accepted and H_0 was rejected. Thus, it can be concluded that the more optimal the implementation of e-government through the *Sentuh Tanahku* application, the better the quality of public services provided to the community.

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