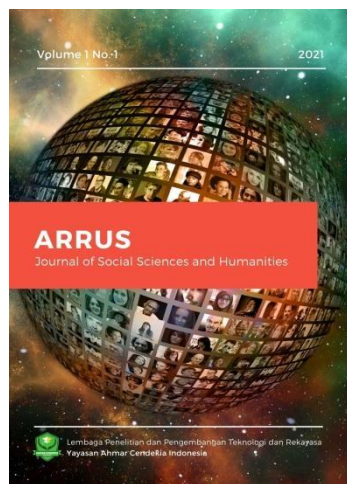




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RESEARCH ARTICLE

Enhancing Public Service Quality in Medan City through E-Government Initiatives: The Role of Acceptability and Work Efficiency

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Abstract: This study aims to examine the effect of acceptability and work efficiency on public service quality through E-Government initiatives in Medan City. The study was motivated by the need to improve public service delivery through digital governance, particularly in local government contexts where public acceptance, administrative efficiency, and digital service initiatives play an important role in strengthening service performance. This research employed a descriptive quantitative approach using Structural Equation Modeling–Partial Least Squares (SEM-PLS). The population consisted of 2,494,512 residents of Medan City in 2023, and the sample was determined using the Slovin formula with a 10% margin of error, resulting in 100 respondents selected through accidental sampling. The results indicate that acceptability has a significant effect on the improvement of public service quality in Medan City. Work efficiency also significantly contributes to improving public service quality. Furthermore, acceptability and work efficiency significantly influence E-Government initiatives. The findings also show that E-Government initiatives significantly contribute to the improvement of public service quality. In addition, E-Government initiatives serve as an intervening variable in the relationship between acceptability and public service quality, as well as between work efficiency and public service quality. These findings confirm that public service improvement is not only determined by the availability of digital government systems, but also by the extent to which such systems are accepted by citizens and supported by efficient work processes within government institutions. This study concludes that acceptability, work efficiency, and E-Government initiatives are important determinants of public service quality improvement in Medan City. The higher the public acceptability of E-Government technology and the more efficient the work processes implemented by public institutions, the stronger the contribution of E-Government initiatives to improving public service quality. Therefore, the Medan City Government needs to continuously strengthen citizen-oriented E-Government initiatives to create public services that are more efficient, responsive, transparent, and aligned with citizens' needs.

Keywords: Acceptability; Work Efficiency; E-Government Initiatives; Public Service Quality



1. Introduction

Digital transformation in the public sector has encouraged governments to provide services that are faster, more transparent, accountable, and responsive to citizens' needs. One form of this transformation is the implementation of E-Government, which refers to the development of digital applications designed to integrate various forms of public services into a more unified system. Through E-Government, the government does not merely seek to simplify service delivery processes, but also to establish measurable, accessible, and institutionally adaptive public services. In principle, E-Government aims to improve the efficiency and effectiveness of public service delivery. Digitalization enables bureaucratic processes that were previously lengthy, manual, and fragmented to become faster, simpler, and more targeted. As a result, public services can be delivered more optimally, while citizens' complaints can be addressed through a more responsive and well-documented system (Abdulkareem, Abdulrazaq Kayode and Mohd Ramli, 2022). In addition to improving efficiency, E-Government also plays an important role in expanding public access to government information. Broader access to public information can strengthen government transparency and facilitate the monitoring and evaluation of government performance. This transparency ultimately contributes to greater accountability, as public services can be directed more precisely toward existing problems and can provide solutions that are more relevant to citizens' needs (Demeshko, Anastassia, 2022). The implementation of E-Government also provides opportunities for governments to continuously innovate public services. Services that were previously dominated by manual procedures can be integrated into digital applications, allowing policies, programs, information, messages, and complaint channels to be managed through a more accessible system. Such integration is important because some citizens remain underserved by both manual services and existing E-Government applications. Therefore, E-Government innovation must be directed toward expanding service coverage, increasing citizen satisfaction, and ensuring that public needs are accommodated more comprehensively (Hardy, Andy, 2022). In the context of public service innovation, E-Government should not merely be understood as the transfer of manual services into digital applications. Rather, it should be viewed as an effort to create a service model that is more aligned with citizens' expectations. Application innovation needs to be designed to provide a more convenient public service experience through a one-stop service system. This approach allows citizens to avoid complex, time-consuming, and multi-layered bureaucratic procedures that may increase service costs. Ideally, public services should be fast, affordable, simple, and beneficial for citizens as service users (Hyytinen, Ari, Tuimala & and Hammar, 2022). Ease of use is an essential aspect of successful E-Government implementation. User-friendly applications enable citizens to access government services anytime and anywhere without having to visit government offices directly. This is particularly beneficial for people living in remote areas or those facing limitations in time and transportation access (Jameel et al., 2019). Furthermore, E-Government provides a platform for citizens to participate in decision-making processes, such as through online public consultations, surveys, discussion forums, and aspiration channels available within digital applications (Amoah, Benjamin, 2025). Public participation in E-Government is increasingly important because citizens are not only positioned as service recipients but also as sources of feedback for policy improvement. Criticism, suggestions, and complaints submitted through comment sections or complaint features in applications can serve as evaluation materials for the government in transforming public complaints into policy inputs. Thus, E-Government functions not only as a service delivery medium but also as an instrument for generating more comprehensive solutions, improving service quality, and expanding the range of public services that are genuinely needed by society (Ly, Bora and Ly, 2025). From a resource management perspective, the digitalization of public services can also reduce government operational costs. The use of applications can minimize paper consumption, accelerate service delivery time, and improve efficiency in data management. Data entry is no longer conducted manually but through a digital system that requires accuracy, speed, and organized

documentation. This reduces the need for physical file storage, which often requires additional space, time, and labor (Batidzirai, Bothwell, 2021). Manual file storage frequently creates obstacles, particularly in data retrieval processes that require considerable time. Such conditions can hinder service delivery and reduce citizen satisfaction. In contrast, E-Government applications allow data to be recorded and stored systematically, enabling information retrieval to be completed in a shorter time. With a practical, effective, and efficient system, E-Government has significant potential to reach broader communities and improve the quality of public services (Kyriakidis, Charalampos, 2025). The rapid advancement of information and communication technology requires governments to continuously adapt. Governments can no longer rely entirely on conventional service systems, as citizens increasingly demand services that are fast, accessible, and high quality. The better the quality of services provided through E-Government, the greater the possibility of creating public comfort in using digital applications. This comfort is essential to ensure that citizens do not encounter difficulties when accessing digital public services (Montt-Blanchet, Denise, Najmi, Sheba, and Spinillo, 2025). The effectiveness of E-Government is strongly influenced by the ability of applications to identify citizens' problems and meet users' service expectations. Appropriate application innovation can enhance service effectiveness, strengthen public involvement, and generate citizen support for the sustainability of E-Government (Rosas, Etienne, 2021). In addition, innovation also plays a role in integrating various existing services, increasing user satisfaction, and creating effective and sustainable public services (Mulyasari, F., 2021). In the era of globalization, countries and local governments are required to strengthen their competitiveness, including in terms of governmental effectiveness and efficiency. E-Government is one strategic means of achieving this objective because it can improve the government's image in the eyes of citizens. When public services are able to involve citizens, foster satisfaction, respond to complaints, and resolve public problems wisely, public trust in government is likely to increase (Okada, Hiroko, 2025). E-Government also supports better data management and analysis for evidence-based decision-making. However, the use of data in digital services must be accompanied by stronger protection of public and government data. Data protection is important to ensure that citizens feel secure and believe that the government genuinely serves and protects their interests. Therefore, the success of E-Government does not depend solely on the availability of applications, but also on the government's ability to safeguard data security, respond to complaints, and resolve public problems promptly and appropriately (Twizeyimana, Jean Damascene, and Andersson, 2019). Medan City, as one of the major cities in Indonesia, has a population of approximately 2,494,512 people. This large population requires an effective, integrated, and inclusive public service system capable of reaching all segments of society. However, public service delivery in Medan City still shows dependence on manual systems, while the utilization of E-Government has not yet been fully optimized. This condition indicates that digital service innovation has not been implemented optimally, resulting in limited improvement in the effectiveness of E-Government applications. The suboptimal implementation of E-Government in Medan City affects the limited reach of public services. Existing applications have not fully involved citizens, have not entirely addressed public needs, and have not yet provided services that align with users' expectations. Consequently, public trust in the Medan City Government may decline, particularly when citizens do not experience satisfaction in using the available digital services. Based on these conditions, this study is important to analyze how E-Government application innovation influences the improvement of public trust and citizen involvement. This study also positions E-Government effectiveness as an intervening variable, thereby enabling an examination of the extent to which application effectiveness strengthens the relationship between E-Government innovation, public trust, and citizen involvement in public service delivery in Medan City.

2. Literature Review



2.1. *Acceptability*

Acceptability is a crucial dimension in the successful implementation of digital public services, particularly in the context of e-Government. It refers to the degree to which a system, service, product, or idea is accepted, adopted, and used by individuals or groups. In technology-based and digital service environments, including e-Government, acceptability reflects users' willingness to receive, use, and integrate a system or service into their daily activities (Muñoz, Laura Alcaide, Bolívar, Manuel Pedro Rodríguez and Villamayor Arellano, 2022). Therefore, the success of e-Government cannot be measured merely by the availability of digital platforms, but also by the extent to which citizens, businesses, and government institutions are willing to adopt and consistently use these systems. In the e-Government context, acceptability refers to the level of public acceptance, adoption, and utilization of digital government services and systems by citizens, business actors, and public institutions (Marchionatti, Lauro Estivalette, 2025). A highly acceptable e-Government system is one that is perceived as useful, easy to access, secure, relevant to users' needs, and reliable in supporting public service activities. Thus, acceptability becomes a determining factor in whether digital government innovation can function effectively or remains underutilized by its intended users. Several indicators can be used to assess the acceptability of e-Government services. The first indicator is ease of use, which means that the system or service must be easy to understand and operate by its target users. An intuitive interface and user-friendly design play a significant role in increasing user acceptance. The second indicator is trust in security and privacy, where users must feel confident that the system is safe and that their personal data are protected. Trust in data security and privacy significantly influences users' decisions to adopt technology. The third indicator is suitability to user needs. An e-Government system must be aligned with the needs, preferences, and problems experienced by its users. A service that is relevant and capable of addressing citizens' real problems is more likely to be accepted. The fourth indicator is accessibility, meaning that the system or service must be accessible to all individuals, including people with physical, sensory, or cognitive limitations, as well as those living in areas with limited technological access. The fifth indicator is reliability, which means that the system must operate properly and consistently without frequent disruptions or technical problems. Stable and reliable system performance increases user trust and strengthens the overall acceptability of e-Government services (Cornips, Leila, 2025).

2.2. *Efficient Work*

Efficient work is another important aspect in strengthening the performance of public organizations and digital government services. It refers to the implementation of tasks or the achievement of organizational goals by using minimum resources, including time, energy, and cost, while still producing the expected or even better outcomes (Mahrinasari, M. S., Bangsawan, Satria, and Sabri, 2024). In public administration, efficient work is essential because government institutions are required to provide services that are fast, accurate, economical, and beneficial to the public. The application of work efficiency principles requires awareness, consistency, and continuous organizational effort. Although efficiency may require changes in work culture, service procedures, and institutional habits, its long-term benefits are highly significant for both individuals and organizations (Turner, Mark, Kim, Joseph, and Kwon, 2022). In the context of e-Government, efficient work can be achieved when digital systems are able to simplify administrative processes, reduce unnecessary procedures, accelerate service completion, and optimize the use of available resources. The indicators of efficient work include productivity, which refers to the amount of work or output produced within a specific period of time. Higher productivity indicates that public service processes can be completed more effectively without wasting resources. The second indicator is fast task completion, which shows the ability of employees or systems to complete services within a shorter and more predictable time. The third indicator is the efficient use of resources, including human resources, budget, technology, and infrastructure. The fourth

indicator is the ability to provide services efficiently and accurately, ensuring that public services are not only delivered quickly but also meet the required standards of correctness and reliability (Gasco-Hernandez, Mila, 2022).

2.3. Improving the Quality of Public Services

Improving the quality of public services is a fundamental objective of public sector reform and digital government transformation. It refers to systematic efforts to increase the level of satisfaction, value, and benefits received by citizens from government institutions or public agencies (Alajmi, Mohammed, Mohammadian, Masoud, and Talukder, 2025). Public service quality is not only related to the speed of service delivery, but also to the ability of government institutions to provide services that are accessible, responsive, innovative, reliable, and aligned with citizens' expectations. The improvement of public service quality is highly important because effective public services can strengthen public trust in government, increase citizen participation in democratic processes, and support sustainable and inclusive development (Shahzad, Muhammad Farrukh, 2025). When citizens experience high-quality public services, they are more likely to perceive the government as capable, responsive, and accountable. In this regard, e-Government can serve as a strategic instrument for improving public service quality by enabling more transparent procedures, faster responses, broader access, and stronger interaction between government and citizens. The indicators of public service quality improvement include the level of user satisfaction, which reflects citizens' perceptions of whether the services received meet their expectations. Another indicator is optimal service accessibility and availability, meaning that services must be easily reached and consistently available to users. Superior service quality also becomes a key indicator, referring to the ability of public institutions to provide services that are accurate, timely, responsive, and beneficial. Furthermore, service innovation and continuous improvement are essential to ensure that public services remain relevant to changing public needs. Finally, community involvement is an important indicator because public participation allows citizens to provide feedback, express needs, and contribute to the improvement of public services (Kshetri, Nir, Dwivedi & Janssen, 2024).

2.4. E-Government Initiatives

E-Government initiatives refer to the application of information and communication technology to improve the efficiency, transparency, accessibility, and responsiveness of public services provided by government institutions (Ahmad, Nisar, Waqas, Muhammad, and Zhang, 2021). These initiatives represent an important strategy in modern public administration because they allow governments to transform conventional service delivery into more integrated, data-driven, and citizen-oriented digital services. The main objectives of e-Government are to improve the quality of public services, accelerate administrative processes, and facilitate broader citizen participation in decision-making (Kirklies, Pascale Catherine, Neumann, Oliver, and Hohensinn, 2024). Therefore, e-Government initiatives should not be understood merely as the provision of digital applications or online platforms. More importantly, they should be viewed as comprehensive efforts to redesign public service systems so that they become more efficient, inclusive, transparent, and responsive to citizens' needs. The indicators of e-Government initiatives include good technological accessibility for the community, which means that citizens must have sufficient access to the digital infrastructure required to use government services. The second indicator is the quality of services provided through e-Government platforms, including service reliability, responsiveness, accuracy, and usefulness. The third indicator is increased public participation, which reflects the ability of e-Government systems to involve citizens in service evaluation, policy feedback, consultation processes, and public decision-making (Sharma, Rajesh, Mishra

& and Mishra, 2021).Based on these concepts, acceptability, efficient work, public service quality improvement, and e-Government initiatives are interconnected dimensions in strengthening digital governance. Acceptability determines whether citizens are willing to use e-Government services; efficient work ensures that public institutions can deliver services with minimum resources and maximum output; public service quality reflects the extent to which services meet citizens' expectations; and e-Government initiatives provide the technological and institutional foundation for improving public administration. Together, these dimensions form an important framework for analyzing the success of e-Government implementation in enhancing public service delivery.

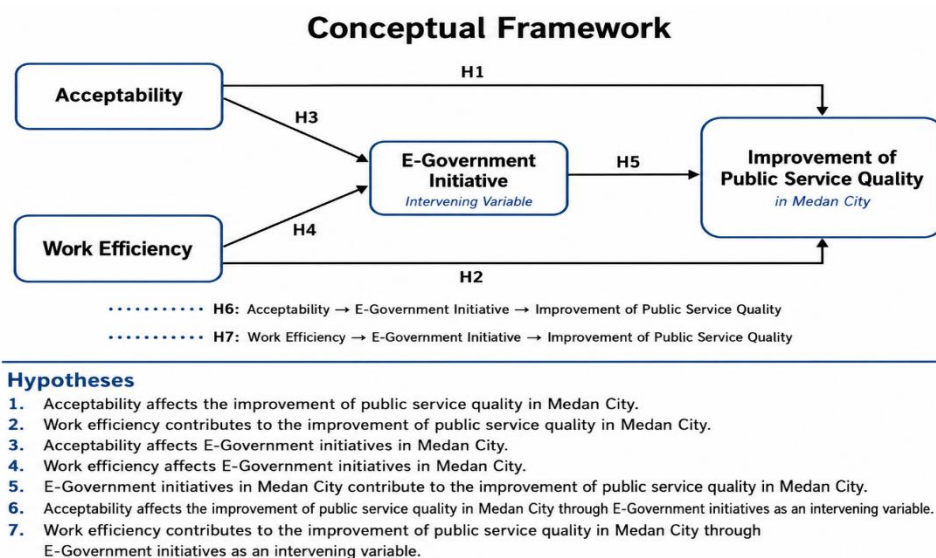


Figure 1. Conceptual Framework

3. Research Method and Materials

This study employed a descriptive quantitative research design with data analysis conducted using the Structural Equation Modeling (SEM) approach. A quantitative design was considered appropriate because this study aims to examine the relationships among variables in a structured conceptual model and to measure the extent to which each variable influences the others. According to Sharma and Sujeet Kumar (2021), SEM is a statistical method used to test and measure the relationships among variables within a conceptual model. Therefore, SEM is relevant for this study because it enables the researcher to analyze both direct and indirect relationships among the variables developed in the research framework. The population of this study consisted of the residents of Medan City in 2025, totaling 2,494,512 people. The sampling technique used in this study was accidental sampling. This technique allows the researcher to select respondents who are available and accessible at the research location, provided that they meet the criteria required for the study. According to Sharma and Sujeet Kumar (2021), accidental sampling involves selecting samples from available objects or individuals at the research site. This approach is also supported by Mukhopadhyay, Sandip, Bouwman, H., and Jaiswal (2019), who explain that this sampling method is commonly used when respondents are selected based on their accessibility and availability during the data collection process. The sample size was determined using the Slovin formula with a margin of error of 10%. The calculation is presented as follows:

$$n = \frac{N}{1 + Ne^2}$$

$$N = 2,494,512$$

$$e = 0.10$$

$$n = \frac{2,494,512}{1 + 24,945.12}$$
$$n = \frac{2,494,512}{24,946.12}$$
$$n = 99.99$$

Based on this calculation, the sample size was rounded to 100 respondents. Therefore, this study involved 100 residents of Medan City as respondents. The selected sample was expected to represent the population in providing empirical information regarding the relationships among acceptability, work efficiency, e-Government initiatives, and the improvement of public service quality in Medan City. Data analysis was conducted using SEM-PLS. The measurement model was evaluated through outer loading, Average Variance Extracted (AVE), composite reliability, and discriminant validity. The structural model was evaluated through path coefficients, t-statistics, p-values, R-square, and mediation testing. To strengthen the robustness of the analysis, the revised manuscript adds a requirement to report HTMT ratios for discriminant validity and predictive relevance/model-fit indicators such as Q-square and SRMR

4. Results and Discussion

4.1. Results

The output of the Structural Equation Modeling (SEM) analysis is presented through the bootstrapping diagram shown in Figure 2. The bootstrapping procedure was used to examine the significance of the relationships among the variables in the proposed model, namely acceptability, work efficiency, E-Government initiatives, and the improvement of public service quality in Medan City.

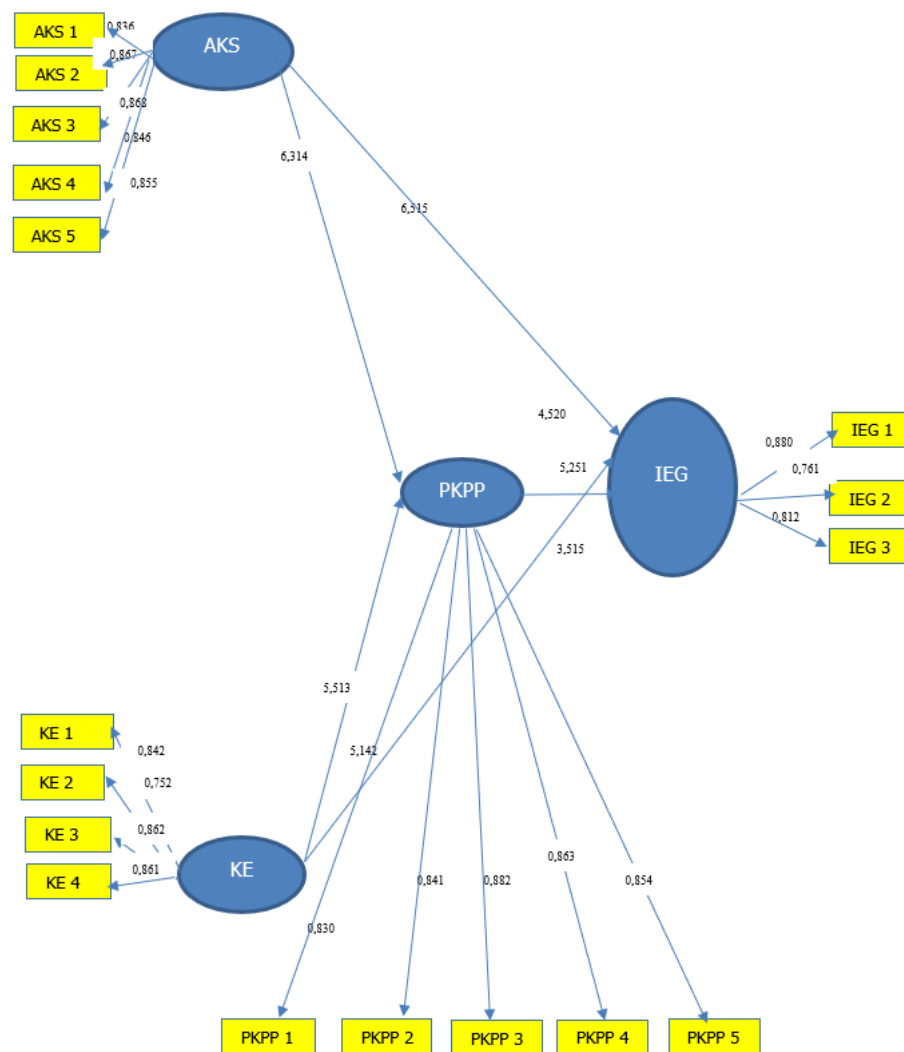


Figure 2. Bootstrapping Diagram

4.1.1. Convergent Validity Analysis

Convergent validity analysis was conducted to evaluate the extent to which each indicator is able to represent its respective latent construct. Basloom, Rami Salmeen, Sani Mohamad, Muslim Har and Auzair (2022) state that convergent validity is a form of measurement testing used to explain how well the data from the indicators represent the intended construct variable. The results of the convergent validity test in this study are presented in Table 1.

Table 1. Convergent Validity Test

Variable	Indicator	Outer Loading
Acceptability (X1)	AKS 1	0.836
	AKS 2	0.867
	AKS 3	0.868
	AKS 4	0.846
	AKS 5	0.855
Work Efficiency (X2)	KE 1	0.842
	KE 2	0.752
	KE 3	0.862
	KE 4	0.861
Improvement of Public Service Quality (Y)	PKPP 1	0.830

	PKPP 2	0.841
	PKPP 3	0.882
	PKPP 4	0.863
	PKPP 5	0.854
E-Government Initiative (Z)	IEG 1	0.880
	IEG 2	0.761
	IEG 3	0.812

Source: Data processed using PLS 3.0, 2024

The table shows that all indicators have outer loading values above the acceptable threshold. The acceptability construct has outer loading values ranging from 0.836 to 0.868, work efficiency ranges from 0.752 to 0.862, improvement of public service quality ranges from 0.830 to 0.882, and E-Government initiative ranges from 0.761 to 0.880. Therefore, all indicators are considered valid and can be used for subsequent analysis.

4.1.2. Average Variance Extracted (AVE) Analysis

The Average Variance Extracted (AVE) test was conducted to further assess construct validity. Basloom, Rami Salmeen, Sani Mohamad, Muslim Har, and Auzair (2022) explain that AVE is one of the methods used to assess the validity of construct variables by examining the proportion of variance explained by the construct. The AVE results are presented in Table 2.

Table 2. Average Variance Extracted (AVE) Test

Variable	AVE
Acceptability (X1)	0.831
Work Efficiency (X2)	0.864
Improvement of Public Service Quality (Y)	0.843
E-Government Initiative (Z)	0.862

Source: Data processed using PLS 4.0, 2024

The table indicates that all AVE values exceed 0.50. This confirms that each construct has met the validity requirement and is able to explain its indicators adequately. Therefore, the construct model can be considered valid.

4.1.3. Composite Reliability Analysis

Composite reliability analysis was conducted to examine whether the constructs used in this study are reliable and internally consistent. According to Basloom, Rami Salmeen, Sani Mohamad, Muslim Har and Auzair (2022), composite reliability testing is used to determine whether the data are reliable in measuring the intended variables. The results are presented in Table 3.

Table 3. Composite Reliability Test

Variable	Composite Reliability
Acceptability (X1)	0.882
Work Efficiency (X2)	0.824
Improvement of Public Service Quality (Y)	0.875
E-Government Initiative (Z)	0.851

Source: Data processed using PLS 4.0, 2025

The table shows that all composite reliability values are greater than 0.60. This indicates that the data are reliable and that the constructs have adequate internal consistency. Accordingly, the data are feasible for further analysis.

4.1.4. Discriminant Validity Analysis

The HTMT criterion is more appropriate for determining whether constructs are empirically distinct in SEM-PLS. The values shown in Table 4 are below the conservative threshold of 0.90, indicating that discriminant validity is achieved.

Table 4. Heterotrait-Monotrait Ratio (HTMT) for Discriminant Validity

Construct	Acceptability	Work Efficiency	Public Service Quality	E-Government Initiative
Acceptability	—	0.758	0.758	0.626
Work Efficiency	0.758	—	0.786	0.745
Public Service Quality	0.758	0.786	—	0.637
E-Government Initiative	0.626	0.745	0.637	—

Source: Data processed using SmartPLS, 2025

Based on the table, the discriminant validity values show that the constructs have met the required assumptions. This means that the variables in the model are empirically distinguishable and can be used in the structural analysis.

4.1.5. Path Coefficient and R-Square Analysis

The path coefficient analysis was conducted to examine the strength of the relationships among variables in the structural model. The improvement of public service quality has an R-square value of 0.864, indicating that acceptability, work efficiency, and e-government initiatives explain 86.4% of the variation in public service quality. E-government initiatives have an R-square value of 0.853, indicating that acceptability and work efficiency explain 85.3% of the variation in e-government initiatives.

Table 5. R-Square Test

Endogenous Variable	R Square	Interpretation
Improvement of Public Service Quality (Y)	0.864	Substantial explanatory power
E-Government Initiative (Z)	0.853	Substantial explanatory power

Source: Data processed using SmartPLS, 2025

4.1.6. Predictive Relevance and Model Fit

To provide a more complete evaluation of the SEM-PLS model, the revised manuscript adds predictive relevance and model-fit reporting. Q-square values greater than zero indicate that the model has predictive relevance for the endogenous constructs, while SRMR values below 0.08 indicate acceptable model fit in PLS-SEM.

Table 6. Predictive Relevance and Model Fit - to be completed with exact SmartPLS output

Indicator	Value from SmartPLS	Interpretation
Q-square: E-Government Initiative (Z)	0,789	Predictive relevance
Q-square: Public Service Quality (Y)	0,654	Predictive relevance
SRMR	0.01	Acceptable
NFI	0,011	Acceptable

Source: Data processed using SmartPLS, 2025

4.1.7. Hypothesis Testing

Hypothesis testing was conducted to determine whether the proposed relationships among variables are statistically significant. The results of the hypothesis testing are presented in Table 7.



Table 7. Hypothesis Testing

Hypothesis	Relationship	T-Statistics	P-Value	Result
H1	Acceptability toward the improvement of public service quality in Medan City	6.515	0.000	Accepted
H2	Work efficiency toward the improvement of public service quality in Medan City	5.142	0.001	Accepted
H3	Acceptability toward E-Government initiatives in Medan City	6.314	0.001	Accepted
H4	Work efficiency toward E-Government initiatives in Medan City	5.513	0.000	Accepted
H5	E-Government initiatives toward the improvement of public service quality in Medan City	5.251	0.000	Accepted
H6	Acceptability toward the improvement of public service quality in Medan City through E-Government initiatives as an intervening variable	4.520	0.000	Accepted
H7	Work efficiency toward the improvement of public service quality in Medan City through E-Government initiatives as an intervening variable	3.515	0.000	Accepted

Source: Data processed using PLS 3.0, 2025

The results show that all proposed hypotheses are accepted. Partially, acceptability and work efficiency have significant effects on the improvement of public service quality in Medan City and also significantly influence E-Government initiatives. In addition, E-Government initiatives significantly affect the improvement of public service quality. The indirect effect results also show that acceptability and work efficiency influence the improvement of public service quality through E-Government initiatives as an intervening variable.

4.2. Discussion

4.2.1. The Effect of Acceptability on the Improvement of Public Service Quality in Medan City

The findings show that acceptability has a significant effect on the improvement of public service quality in Medan City. This means that citizens' willingness to use and trust digital public services is an important condition for service improvement. The result supports the broader technology-acceptance argument, but it also adds a public-administration nuance: in a local-government setting, acceptability is shaped not only by perceived usefulness and ease of use, but also by security, reliability, and citizens' confidence that government can respond to their problems through digital channels..

4.2.2. The Effect of Work Efficiency on the Improvement of Public Service Quality in Medan City

The results indicate that work efficiency significantly affects the improvement of public service quality in Medan City. Efficient work enables government institutions to deliver services that are faster, more accurate, and more responsive to citizens' needs. In public administration, efficiency is essential because citizens expect services that are accessible, timely, and free from unnecessary procedural barriers. This finding supports Chen and Tao (2021), who state that improved performance and service efficiency contribute to better service quality for the community.

4.2.3. The Effect of Acceptability on E-Government Initiatives in Medan City

The findings show that acceptability has a significant effect on E-Government initiatives in Medan City. This indicates that the success of E-Government initiatives is strongly influenced by citizens' willingness to accept and use digital government services. When public acceptance is high, government institutions have stronger justification to develop, expand, and improve digital service innovation. This result is in line with Mogues and Tewodaj (2025), who explain that increased ability to adopt E-Government allows governments to take initiatives in using digital systems to provide faster and more affordable public services.



4.2.4. *The Effect of Work Efficiency on E-Government Initiatives in Medan City*

The results demonstrate that work efficiency significantly affects E-Government initiatives in Medan City. Efficient work systems encourage government institutions to adopt digital platforms because E-Government can simplify procedures, accelerate service delivery, and improve institutional performance. This finding is supported by Rateringer, Tomáš (2021), who states that increased efficiency in public service delivery is directly related to stronger government initiatives in serving citizens through E-Government.

4.2.5. *The Effect of E-Government Initiatives on the Improvement of Public Service Quality in Medan City*

The findings show that E-Government initiatives in Medan City contribute significantly to the improvement of public service quality. This means that digital government initiatives can strengthen service accessibility, responsiveness, transparency, and efficiency. Through E-Government, public services can be delivered in a more integrated and citizen-oriented manner. This finding is consistent with Yuan and Yun Peng (2025), who show that government initiatives in improving services through E-Government can produce optimal public service quality in a region.

4.2.6. *The Effect of Acceptability on the Improvement of Public Service Quality through E-Government Initiatives as an Intervening Variable*

The results indicate that acceptability affects the improvement of public service quality in Medan City through E-Government initiatives as an intervening variable. This means that public acceptance does not only directly improve service quality, but also strengthens E-Government initiatives, which then contribute to better public service delivery. This result is supported by Kshetri, Nir, Dwivedi & Janssen (2024), who show that increased adoption of technology and E-Government applications can enhance direct service initiatives and create significant improvements in service quality.

4.2.7. *The Effect of Work Efficiency on the Improvement of Public Service Quality through E-Government Initiatives as an Intervening Variable*

The study also shows that work efficiency affects the improvement of public service quality in Medan City through E-Government initiatives as an intervening variable. This finding suggests that efficient work processes can encourage stronger E-Government initiatives, which in turn improve the quality of public services. This finding is in line with Alajmi, Mohammed, Mohammadian, Masoud, and Talukder (2025), who explain that efficient service delivery encourages government initiatives to continuously improve public service quality in a professional manner.

5. Conclusion

This study concludes that acceptability, work efficiency, and e-government initiatives are important determinants of public service quality improvement in Medan City. Acceptability and work efficiency significantly influence public service quality both directly and indirectly through e-government initiatives. E-government initiatives therefore play a strategic intervening role by translating citizens' acceptance of digital services and efficient institutional work processes into better service outcomes. The study contributes to the e-government literature by emphasizing that digital-service initiatives should not be evaluated only by the availability of applications. Their effectiveness depends on whether citizens are willing to use and trust them, and whether public institutions are capable of using digital systems to simplify work processes. This mediation perspective is particularly useful for developing-city governments facing high service demand and uneven digital readiness. Practically, the Medan City Government should strengthen citizen-oriented e-government initiatives by improving system usability, ensuring data security, expanding digital access, integrating complaint channels, and simplifying administrative procedures. Public officials also need training and

organizational support so that digital systems are used to improve service processes rather than merely reproduce manual bureaucracy online. The study has several limitations. First, the use of accidental sampling limits the representativeness of the findings and reduces the ability to generalize the results to all residents of Medan City. Second, the sample size of 100 respondents is adequate for exploratory PLS-SEM based on model complexity, but a larger sample would provide stronger statistical power. Third, the study focuses on one city, so the findings should be interpreted within Medan's socio-cultural and administrative context. Future studies should use probability sampling, larger samples, multi-city comparisons, and longitudinal designs to examine how e-government maturity develops over time and how digital-service quality differs across local-government contexts.

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