

ICT Infrastructure Readiness and Stakeholder Trust in E-Government Systems: Evidence from Local Government Authorities

Andrew Msagamas¹

Grace Michael Mushi²

Abstract

This paper examines ICT Infrastructure readiness and stakeholder trust in E-Government systems, highlighting the factors shaping the effectiveness of e-government service provision and their impact on e-government system adoption. The study employed a descriptive research design and was conducted in two regions, namely Kilimanjaro and Tanga. Data were collected through questionnaires and key informant interviews using a cross-sectional descriptive design from 248 respondents selected through stratified random sampling from a target population of 487 Local Government Authority (LGA) employees, including Information Technology Officers, Procurement Officers, and Human Resource Officers. Both qualitative and quantitative methods were used. The findings reveal that although ICT infrastructure was reported to be in place in most LGAs, nearly half of respondents perceived its quality and functionality as poor, a situation that continues to affect e-government service provision. The study concludes that while ICT infrastructure is widely established, strategic efforts are needed to improve its quality and address factors that limit the provision of e-government services. The findings indicate that ICT infrastructure readiness and stakeholder trust are critical determinants of e-government system adoption in Local Government Authorities. These insights offer valuable implications for local government ICT policy and E-government system adoption frameworks in Tanzania.

Keywords: E-Government Adoption, ICT Infrastructure Readiness, Stakeholder Trust, Digital Governance, Local Government Authorities, Tanzania.

1.0 Introduction

ICT infrastructure readiness is considered a foundational requirement for the effective implementation of e-government systems (UNDESA, 2024). It encompasses the availability, accessibility, and reliability of technological resources, including internet connectivity, hardware, software, and technical expertise. Moreover, there is a strong relationship between ICT infrastructure readiness and stakeholder trust in shaping e-government

1 Tanzania Public Service College, Tanga, Tanzania. andrew.msagamas@tpsc.go.tz
ORCID: 0000-0002-6539-2485

2 Tanzania Public Service College, Tanga, Tanzania. grace.mushi@tpsc.go.tz

outcomes (Nyadzi & Morris, 2026). Adequate ICT infrastructure enhances system performance and user experience, thereby fostering trust among stakeholders. Conversely, poor infrastructure can lead to system failures and dissatisfaction, undermining trust and limiting the effectiveness of e-government services.

Globally, countries with strong ICT readiness, such as the United States, China, and members of the European Union, have achieved significant improvements in service delivery, administrative efficiency, and citizen engagement (Pulijala, 2024). For example, the experiences of the United States, China and members of the European Union reveal that good ICT readiness can help transform public services in three key ways: making services accessible to citizens online, improving administrative efficiency by introducing integrated platforms, automation and cost reduction, and strengthening citizen participation by providing user-centred services, online consultation and participatory e-government platforms. Conversely, low ICT readiness, particularly in developing countries, often leads to delayed implementation, underutilisation of digital platforms, and limited access to services for citizens (World Bank, 2024).

In Africa, several studies have examined e-government adoption and its critical role in ICT readiness, enabling the successful implementation of e-government service provision (Bwalya & Healy, 2010; Adjei-Bamfo et al., 2020). They highlighted that the effectiveness of e-government services is closely linked to the sophistication and availability of ICT infrastructure, as well as organisational capacity and user preparedness. They argue that advanced ICT systems not only improve operational efficiency but also enhance user confidence in the reliability and accessibility of digital government services. Although their research is situated in an African context, the conceptual insights regarding ICT readiness and its influence on e-government adoption have broader applicability to other stakeholders, providing a useful framework for understanding factors that foster stakeholder trust in e-government systems.

Through the lens of theory, recent studies emphasise the critical role of ICT infrastructure in enabling effective e-government adoption and enhancing stakeholder trust, reflecting TOE constructs. Hans & Rutenge (2024) investigated e-government adoption at the Kinondoni Municipal Council in Tanzania and found that robust ICT systems improve administrative efficiency, transparency, and service delivery. However, they also noted challenges such as outdated systems, limited technical capacity, and resource constraints, highlighting the need for strengthened ICT infrastructure to realise the full potential of e-government. Similarly, Makame (2023) observed in Zanzibar that ICT services require substantial improvements to meet the technical and operational demands of e-services, suggesting that enhancing technological readiness is essential for increasing adoption rates and building user confidence. Despite these contributions, empirical studies examining the direct relationship between ICT infrastructure readiness and stakeholder trust in e-government systems at the local government level remain limited. This gap underscores the necessity of the current study, which seeks to provide evidence from Local Government Authorities on how ICT readiness influences stakeholder trust and the successful adoption of e-government services. Bottom of Form.

In the absence of a reliable ICT infrastructure, the provision of effective e-government services will be severely constrained, hence compromising stakeholder trust in e-government systems (Nyadzi & Morris, 2026). Literature indicates that e-government services require a well-established ICT infrastructure to meet the technical and operational demands, suggesting that enhancing technological readiness is essential to increase adoption rates and build user confidence (Mora et al., 2021). Despite these contributions, empirical studies examining the direct relationship between ICT infrastructure readiness and stakeholder trust in e-government systems at the local government level remain limited. This gap underscores the necessity of the current study, which seeks to provide evidence from Local government authorities on how ICT readiness influences stakeholder trust and the successful adoption of e-government services. Bottom of Form The findings of this study are helpful in making informed decisions to enhance ICT infrastructure readiness and e-government service provision, thereby improving people's lives.

2.0 Literature Review

This current literature review examines ICT infrastructure readiness and stakeholder trust in e-government systems, structured around two key gaps that justify this study in Tanzania LGAs. Despite efforts by the government to establish e-government systems, there remains a significant scarcity of empirical research examining the effectiveness of ICT infrastructure in supporting the implementation of e-government in LGAs and in determining stakeholders' perceptions and trust in online services (Nyadzi & Morris, 2026; Mora et al., 2021). Both studies recognise the transformative power of digital technologies in governance, but they focus on different aspects. Nyadzi and Morris (2026) and Mora et al. (2021) highlight the transformative power of digital technologies in governance in different ways. Other authors, however, see e-government as effective only when accompanied by institutional capacity, transparency, digital literacy, and citizen trust, or as a solution based solely on technology, such as blockchain and smart-city technologies (Mora et al., 2021). This is an apparent paradox between a context-dependent and a technology-optimistic view. In methodological terms, both studies have limitations: they are review studies rather than empirical studies, which limits understanding of implementation realities, particularly in developing countries. Consequently, the literature has strong conceptual foundations but limited empirical evidence, leaving room for empirical investigations into the impact of digital technologies on service delivery, participation, and trust in practice.

2.1 Stakeholders' Trust in E-Government Systems

E-government operates within a broader environment that involves multiple stakeholders, including legislators, decision-makers, partners, suppliers, and service recipients (Schedler & Summermatter, 2003). Its successful implementation depends on four key conditions. First, the political environment plays a crucial role, as political structures, power distribution, decentralisation, and citizen participation influence the direction and effectiveness of e-government initiatives; strong political support and commitment are therefore essential drivers. Second, the legal framework is equally important, as implementing e-government requires clear regulations addressing issues such as digital signatures, data protection, and the validity of electronic documents; unresolved legal challenges can significantly delay

progress. Third, societal factors shape the adoption of e-government services, as public attitudes toward technology, trust levels, security concerns, access to infrastructure, and the digital divide all determine how citizens engage with digital government platforms. Finally, technological development is a critical factor, as the pace of innovation directly affects the government's ability to implement, maintain, and upgrade e-government systems effectively.

Moreover, E-readiness at the organisational level is vital, as ready people are more proactive in adopting new technologies, which, in most cases, leads to successful e-government implementation (Kagoya & Mbamba, 2020; Joseph et al., 2018). E-readiness is not merely a technical prerequisite for digital government, but a socio-technical condition that strengthens citizen-state alignment, institutional trust, and economic efficiency. Empirical studies show that reliable digital infrastructure, digital literacy, and responsive online public services enhance citizens' confidence in public institutions and engagement with government platforms (Lee-Geiller, 2024; Nurlinah et al., 2025) trust in government, and citizen participation in Gowa Regency, Indonesia, a region marked by urban-rural disparities. Drawing on a survey of 394 respondents across urban, semi-urban, and rural districts, the research employs descriptive and inferential statistical analysis, including ordinary least squares regression, to investigate how perceptions of digital public services influence trust and participatory behaviors. Findings reveal that digital transformation significantly enhances both trust in government and participation, while trust itself emerges as a strong predictor of citizen participation. However, participation levels remain modest, highlighting a persistent gap between positive perceptions of digital services and actual civic involvement. Spatial differences further complicate the picture: urban areas report higher digital transformation and trust scores, yet participation peaks in transitional zones, suggesting complex socio-structural dynamics. These results underscore that while digital transformation can foster institutional trust, its participatory potential requires complementary strategies addressing inclusivity, literacy, and feedback mechanisms. The study contributes to debates on digital governance by demonstrating that technology alone does not guarantee democratic responsiveness, but its impact is contingent on local contexts and the mediating role of trust.”, container-title”: “Frontiers in Human Dynamics”, “DOI”: “10.3389/fhumd.2025.1700582”, “ISSN”: “2673-2726”, “journalAbbr”: “Front. Hum. Dyn.”, “page”: “1700582”, “source”: “DOI.org (Crossref. By reducing bureaucratic delays, improving transparency, lowering transaction costs, and simplifying interactions between firms and public agencies, e-readiness contributes to more effective service delivery and a more efficient socio-economic environment (Alhassan, 2023; Li & Xu, 2024) this study scrutinizes whether the construction of digital government effectively stimulates enterprise digital transformation and, consequently, promotes urban economic development. Benchmark regression results unequivocally demonstrate that digital government policies significantly propel enterprise digital transformation. Mechanism analysis elucidates that digital government facilitates enterprise digital transformation by enhancing the urban business environment and mitigating the influence of information search costs. Heterogeneity analysis underscores the influence of factors such as the city's area location, administrative level, and economic development level on policy effects. Notably, the impact of digital government policies is more pronounced in central and western cities, provincial capitals, and cities with lower economic development. Economic

consequence analysis reveals that digital government policies play a crucial role in fostering urban economic sustainable development by fostering the digital transformation of enterprises.”;”container-title”:”Sustainability”;”DOI”:”10.3390/su16072667”;”ISSN”:”2071-1050”;”issue”:”7”;”journalAbbreviation”:”Sustainability”;”language”:”en”;”page”:”2667”;”source”:”DOI.org (Crossref).

2.2 E-government

E-government refers to the strategic use of information and communication technologies (ICT) to enhance government service delivery, transparency, and citizen engagement. The OECD (2020) frames e-government as a comprehensive digital transformation that integrates ICT into government operations to streamline processes, support data-driven decision-making, and enable participatory governance. Similarly, the United Nations (2022) emphasises the practical application of e-government, highlighting how digital tools improve access to services, foster citizen involvement, and strengthen stakeholder trust. Both organisations underscore that the effectiveness of e-government is closely linked to the availability and readiness of ICT infrastructure and the degree of stakeholder confidence in digital systems. Despite these insights, there remains a limited understanding of how ICT infrastructure readiness directly influences stakeholder trust at the local government level, particularly in developing contexts.

This gap justifies the present study, which aims to examine the relationship between ICT infrastructure readiness and stakeholder trust in e-government systems within Local Government Authorities. By addressing this issue, the study contributes to the development of evidence-based strategies to enhance digital governance, improve service delivery, and foster trust among citizens and other stakeholders. However, little is known about the effectiveness of ICT infrastructure in supporting e-government implementation in LGAs, as well as citizens’ perceptions and trust in online services.

2.3 Theoretical and Conceptual Framework

The study used the theory of Technology-Organisation-Environment (TOE) as modified by Keban Yeremias et al., 2024 but the maturity has not met the expected target. The distribution of the achievement of the SPBE index (as a representation of e-government maturity in the context of Indonesia, to guide it. Despite its originality and application in Information Technology (IT) & IS Systems, E-Commerce, and E-Business, the choice of TOE in this study is premised on the applicability of its key assumptions to technological factors influencing e-government system adoption.

The assumption is that the availability of technology, including its supporting infrastructure, has a significant positive effect on local governments’ adoption of e-government systems. The theory has been successfully applied to different studies explaining the adoption, implementation, and utilisation of technological innovations (Keban Yeremias et al., 2024) but the maturity has not met the expected target. The distribution of the achievement of the SPBE index (as a representation of e-government maturity in the context of Indonesia. Informed by the TOE, the study operationalised four variables: organisation, environment, technology and e-government systems. The three variables are derived from TOE, and one variable, e-government systems, is drawn from the literature to guide the research process.

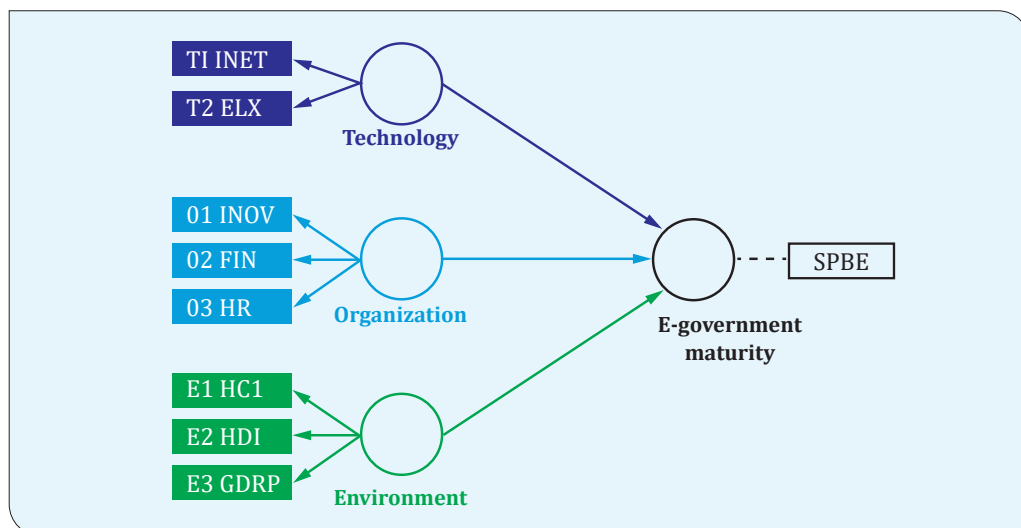


Figure 1: Modified theory of Technology-Organisation-Environment (TOE) by Keban Yermias et al., 2024. but the maturity has not met the expected target. The distribution of the achievement of the SPBE index (as a representation of e-government maturity in the context of Indonesia).

Figure 1 shows the relationship between the study's independent and dependent variables, namely, ICT Infrastructure readiness and stakeholder trust in E-Government Systems. The assumption is that the availability of technology, including its supporting infrastructure, has a significant positive effect on local governments' adoption of the e-government system.

The study uses ICT as the independent variable. ICT was assessed using six parameters: availability of ICT hardware, internet connectivity and reliability, system interoperability, network bandwidth, ICT technical support, and data security infrastructure. These parameters were measured using respondents' responses on a five-point Likert scale (Strongly agree, Agree, Neutral, Disagree, Strongly Disagree). E-government system effectiveness was the dependent variable, comprising the effectiveness of e-government online services, service accessibility, service delivery speed, system usability, and citizen satisfaction with e-government services. The dependent variable was also assessed using five-point Likert scale statements. Overall, this theoretical framework informed the literature review, guided the analysis of findings, and shaped the discussion of results in this study.

3.0 Research Methodology

The study adopted a descriptive research design and a mixed-methods approach, collecting both qualitative and quantitative data. Data were collected from two regions: Kilimanjaro and Tanga. Tanga Region included Tanga City Council and Mkinga District Council, while Kilimanjaro Region included Moshi Municipal Council, Mwanga District Council, and Same District Council. These LGAs were selected because they encompass both urban and rural

characteristics, offering contrasting perspectives on ICT infrastructure readiness and stakeholder trust in e-government systems. Furthermore, they are considered potential study areas because they have ICT infrastructure in place and use it to implement e-government. They are also among the fastest-growing economic regions in Tanzania, thereby attracting business transactions (National Bureau of Statistics, 2022).

A self-administered questionnaire guide was distributed to 248 respondents selected through stratified random sampling from a population of 487 LGAs staff, including IT Officers, Procurement Officers, Human Resource Officers, Registry Staff, Office Secretaries, Agriculture Officers, Community Development Officers, Accountants, Trade Officers, Education Officers, Internal Auditor, Registration and Insolvency Officers, Natural Resources Officers, Environmental Officers, Legal Officers, Medical Doctors, and Cultural Officers, at three district councils, one municipal council, and one city council across the two regions. Stratified random sampling ensured the desired representation across subgroups based on respondents' job positions. A total of 204 questionnaire guides (82.2%) were returned and used for analysis. Table 1 presents the distribution of the study population and the return rate.

Table 1: Distribution of the Study Population and Response Rate

Region (n = 204)	District/Municipal/City Council	Frequency	Per cent
KILIMANJARO	Moshi Municipal	35	17.2%
	Mwanga District Council	43	21.1%
	Same District Council	39	19.1%
	Total	117	57.4%
TANGA	Tanga City Council	46	22.5%
	Mkinga	41	20.1%
	Total	87	42.6%
Grand Total		204	100

Source: Field Data, 2025

The researchers also conducted interviews with 12 participants, including department heads from each District/Municipal and City Council. Interviews were deemed necessary because they provide insights from participants' own accounts and help validate the data collected through the questionnaires. Descriptive statistics were used to analyse quantitative data in the Statistical Package for the Social Sciences (V31) and Microsoft Excel (2022), with frequencies and percentages extracted and presented in tables, figures, and charts. Furthermore, qualitative data were analysed using NVivo.

The study adhered to ethical considerations. Specifically, the researchers obtained research clearance and permits from the respective authorities before collecting data. Participants were also informed of the study's purpose and provided written consent prior to their participation. The participants were also assured of confidentiality and that the data would be used solely for intended policy and development purposes. Throughout the data analysis, discussions and reporting, the researchers have completely avoided using the participants' names in this study.

4.0 Findings

This section presents the study results, organised around three key themes. These include respondents' profiles, the effectiveness of ICT infrastructure in supporting the implementation of e-government systems in LGAs and stakeholders' perceptions and trust in E-government systems.

4.1 Profile of Respondents

The idea was to check the representation of respondents by gender, age, and level of education, and the results are summarised in Table 2. Among the 204 LGAs staff who responded to the questionnaire, 101 (49.5%) were male, and 103 (50.5%) were female. The sample was almost equally distributed between male and female respondents.

Table 2: Demographic Characteristics of Respondents

Characteristics (n = 204)		Frequency	Per cent
Gender	Male	101	49.5
	Female	103	50.5
Age	25 and below	21	10.3
	26 and 35	67	32.8
	36 and 45	61	29.9
	46 and 55	45	22.1
	>56	10	4.9
Level of education	Certificate	13	6
	Diploma	32	16
	Degree	101	50
	Masters	55	27
	PhD	3	1

Source: Field data, 2025

In terms of age distribution, slightly over one-third (67, 32.8%) were aged between 26 and 35years; 61 (29.9%) between 36 and 45years; 45 (22.1%) between 46 and 55years; 21 (10.3%) were 25 and below; and 10 (4.9%) were 56 and above. Regarding education level, Table 2 further revealed that 101 (50%) respondents were degree holders, followed by master's degree holders (55, 27%), diploma holders (32, 16%), certificate holders (13, 6%), and PhD holders (3, 1%). Based on gender, age, and education level, the findings indicate that respondents were drawn from diverse backgrounds.

4.2 Effectiveness of ICT infrastructure in supporting the implementation of e-government systems

This objective aimed to assess the status of ICT infrastructure in supporting the implementation of e-government systems in LGAs. To achieve this, respondents were first asked whether their institution had ICT infrastructure. Results show that 189 (92.6%) of 204 respondents reported the presence of ICT infrastructure, while 15 (7.4%) reported its absence in these study areas, as summarised in Figure 2.

The results in Figure 2 show that ICT infrastructure is established across the study areas, with 189 respondents (92.6%) reporting its presence. In contrast, only 15 respondents (7.4%) reported that their institution lacked ICT infrastructure. Overall, this suggests that ICT infrastructure is established across study areas, likely due to government initiatives to improve service delivery to people; however, a few areas still lack it. These results align well with those obtained from interviews; one interviewee from Mwanga District Council reported;

Yes, we have ICT infrastructure here. The government has taken deliberate measures to improve working conditions by installing PCs and providing internet access, enabling us to serve as many people as possible (DH1_MWNC, 2025).

This quote further indicates the presence of ICT infrastructure in the study areas and its contribution to service delivery.

Another interviewee from Mkinga on a similar issue reported;

Well, we have an ICT infrastructure, but we need to upgrade to newer versions because the current infrastructure is a bit outdated and slow... I hope that in the next budget we will be able to upgrade (HA2_MKNG, 2025).

This quote also shows that ICT infrastructure is in place in the study areas, though it requires an upgrade.

In addition, the researchers asked respondents to indicate the status of ICT infrastructure in the “study areas. Results obtained show that the majority of the respondents, that is, 98 (48.0%) out of 204 respondents, indicated that the ICT infrastructure status was poor, and 48 (23.5%) indicated good, 45 (22.1%) indicated fair, 10 (4.9%) indicated excellent, while only 3 (1.5%) of them indicated very poor, as revealed in Figure 3:

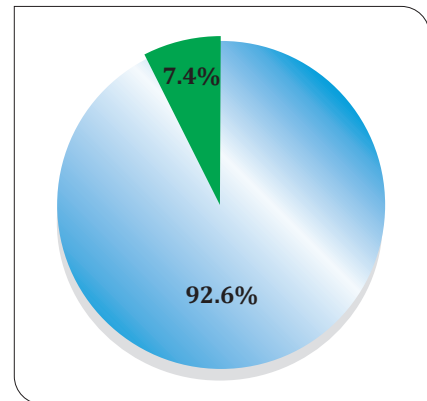


Figure 2: Availability of ICT Infrastructure in Local Government Institutions

Source: Field Data, 2025

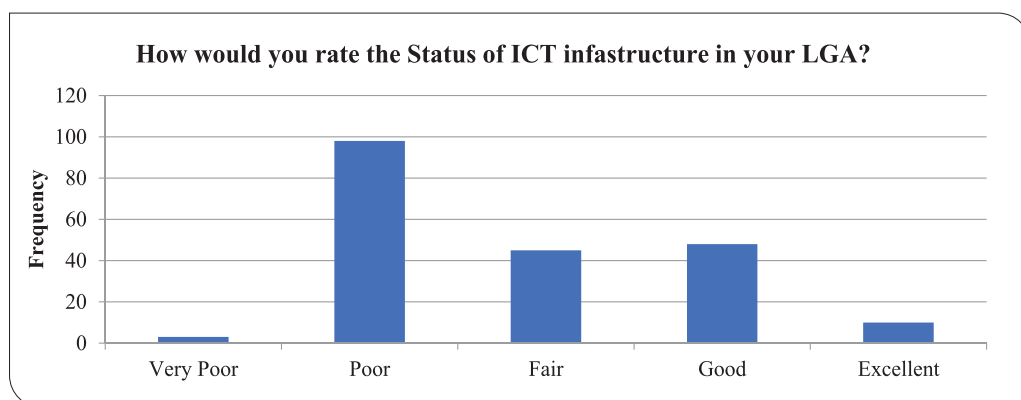


Figure 3: Opinion of Respondents on ICT Infrastructure Status in their LGAs

Source: Field Data, 2025

Despite the widespread availability of ICT infrastructure, nearly half of the respondents rated its condition as poor, indicating significant infrastructure challenges.

4.3 Stakeholders' Perceptions and Trust in GePG

This objective aimed to assess stakeholders' perceptions and trust in GePG. To understand how much stakeholders, such as business owners, trust GePG, a five-point Likert scale (1 = strongly disagree, 2 = Disagree, 3 = not sure, 4 = Agree, 5 = strongly agree) was used to measure responses, as shown in Table 3.

Table 3: Stakeholders' Perceptions and Trust in GePG

Trust in GePG Systems (n = 204)	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Median	Mode
I trust the GePG to handle my personal data securely	3 (1.5%)	10 (4.9%)	19 (9.3%)	169 (82.8%)	3 (1.5%)	4.00	4
I am not confident that the system protects my data from unauthorised access	4 (2.0%)	10 (4.9%)	13 (6.4%)	173 (84.8%)	4 (2.0%)	4.00	4
I trust the GePG services will be available and function well when I need them	4 (2.0%)	5 (2.5%)	13 (6.4%)	176 (86.3%)	6 (2.9)	4.00	4

Source: Field Data, 2025

Results in Table 3 indicate that 172 (84.3%) respondents reported that they trust the GePG to handle their personal data securely; 86.8% of respondents agreed that they were not confident that the system protects their data from unauthorised access, and 89.2% indicated that they trust that the GePG services would be available and function well when they needed them. Generally, the results portray that respondents agreed with the statements regarding how much they trust the GePG systems to handle personal data.

4.4 Predictors of Citizen Satisfaction with E-Government Services

To further identify predictors of citizen satisfaction with e-government services in LGAs, an ordinal logistic regression was conducted. The findings indicate that, among the ICT infrastructure variables, Internet connectivity reliability was the only statistically significant predictor of citizen satisfaction with online services ($\beta = 0.489$, $p = 0.034$). The positive coefficient indicates that greater Internet connectivity reliability is associated with a higher likelihood of citizens reporting greater satisfaction with online services. Other predictors, including availability of ICT hardware ($\beta = -0.184$, $p = 0.220$), system interoperability ($\beta = -0.109$, $p = 0.533$), network bandwidth ($\beta = -0.155$, $p = 0.499$), ICT technical support ($\beta = 0.498$, $p = 0.073$), and data security infrastructure ($\beta = 0.753$, $p = 0.110$), were not statistically significant predictors of citizen satisfaction. Table 4 summarises the study results.

Table 4: Parameter Estimates for Establishing Predictors of Citizen Satisfaction in LGAs

Predictor	B	SE	Wald χ^2	df	P (Sig.)	95% CI for B	Interpretation
Availability of ICT hardware	-0.184	0.150	1.506	1	0.220	[-0.477, 0.110]	Not significant
Internet connectivity reliability	0.489	0.231	4.475	1	0.034	[0.036, 0.941]	Significant
System interoperability	-0.109	0.174	0.388	1	0.533	[-0.450, 0.233]	Not significant
Network bandwidth	-0.155	0.229	0.458	1	0.499	[-0.603, 0.293]	Not significant
ICT technical support	0.498	0.278	3.215	1	0.073	[-0.046, 1.043]	Not significant (borderline)
Data security infrastructure	0.753	0.471	2.554	1	0.110	[-0.171, 1.677]	Not significant

Source: Field data, 2025

Key:

Model statistics:

$$\chi^2(6) = 12.484, p = 0.052$$

Nagelkerke $R^2 = 0.091$; the model explained approximately 9.1% of the variation in citizen satisfaction.

Taken together, these findings suggest that although Internet connectivity reliability emerged as a significant individual predictor ($\beta = 0.489$, $p = 0.034$), the overall model was marginally non-significant ($\chi^2(6) = 12.484$, $p = 0.052$). Other variables, including availability of ICT hardware, system interoperability, network bandwidth, ICT technical support, and data security infrastructure, were not statistically significant predictors.

5.0 Discussion of Findings

This study examines the effectiveness of ICT infrastructure in supporting e-government implementation in LGAs and assesses stakeholders' perceptions and trust in online services. Through the lens of the Technology Organisation Environment (TOE) Theory, the availability of technology and supporting infrastructure positively influences the adoption of e-government systems within local government authorities. Existing literature has examined ICT infrastructure and user trust in e-government systems; however, limited attention has been paid to the combined influence of these factors within Tanzanian local government authorities (Yeremias et al, 2024). This study examines the effectiveness of ICT infrastructure in supporting e-government implementation in LGAs and assesses stakeholders' perceptions and trust in online services. In view of the results, although ICT infrastructure is widely available across LGAs, its quality and adequacy remain relatively modest. These findings align with those of Edmund (2024), who asserted that robust technology infrastructure significantly enhances the effectiveness of information systems in revenue collection by improving operational efficiency, reducing processing delays, and ensuring customer data security. While Ngowi et al. (2025) found that internet connectivity and ICT literacy significantly influence transparency in local government operations, the current study found that the overall status of ICT infrastructure remains modest despite its widespread availability. This suggests that infrastructure alone may not be sufficient to achieve broader governance outcomes.

Regarding stakeholders' perceptions and trust in online services. The results indicate a high level of trust in e-government services. These findings are in line with those from studies of (Mtebe & Sausi, 2021) the Government of Tanzania implemented the Government Electronic Payment Gateway (GePG; Khamis & Junseok Hwang, 2025) efficiency, and openness, particularly through electronic payment systems. In Tanzania, the Government Electronic Payment Gateway (GePG) who found that perceived usefulness, system quality, and facilitating conditions significantly influence continued use of GePG, indicating strong user confidence and trust in the system. However, a study by (Elisa, 2017) accessibility, usability and web security vulnerabilities are still not considered by the majority of web developers. The main objective of this study is to assess the usability, accessibility and web security vulnerabilities of selected Tanzania e-government websites. Using several automatic diagnostic (evaluation) contradicts the findings of this study by showing several issues with the usability, accessibility, and security of Tanzania's e-government websites. The study further found that websites had broken links and that the main page took a long time to load. This disparity suggests that although there is trust in e-government systems, some LGAs still face challenges that may overshadow overall perceptions of trust.

6.0 Conclusion

The findings further suggest that improvements in infrastructure quality, internet reliability, technical support, and system security are necessary to enhance the effectiveness of e-government services. Internet connectivity reliability emerged as the only significant predictor of citizen satisfaction with e-government services, highlighting the importance of reliable network access for successful digital service delivery.

7.0 Recommendations

Strengthen ICT infrastructure: Local Government Authorities should invest in reliable internet connectivity, modern hardware, and secure systems to enhance the reliability and performance of e-government services such as the Government Electronic Payment Gateway (GePG). Local Government Authorities should prioritise investments in reliable internet connectivity, modern ICT hardware, and secure digital infrastructure to improve the effectiveness of e-government services.

References

- Alhassan, U. (2023). E-government and the impact of remittances on new business creation in developing countries. *Economic Change and Restructuring*, 56(1), 181–214. <https://doi.org/10.1007/s10644-022-09418-z>
- Edmund, J. (2024). The influence of ICT infrastructure on revenue collection in the LGAs of Korogwe Town Council, Tanzania. *The African Conference of Applied Informatics*. <https://doi.org/10.59645/acai.v4i1.453>
- Elisa, N. (2017). Usability, Accessibility and Web Security Assessment of E-government Websites in Tanzania. *International Journal of Computer Applications*, 164(5), 42–48. <https://doi.org/10.5120/ijca2017913632>
- Keban Yeremias, T., Cahyadi, D., & Djunaedi, A. (2024). Modelling E-Government Maturity Determinants at the Local Level in Indonesia Using Technology-Organisation-Environment Framework. *Jurnal Ilmu Sosial Dan Ilmu Politik*, 28(1), 17. <https://doi.org/10.22146/jsp.81803>
- Khamis, Z. A. & Junseok Hwang. (2025). Adoption of Government Electronic Payment Gateway (GePG): Study of Users' Satisfaction Integrated Concept. *International Journal of Advances in Scientific Research and Engineering*, 11(05), 01–18. <https://doi.org/10.31695/IJASRE.2025.5.1>
- Lee-Geiller, S. (2024). The moderating effect of digital literacy on the link between e-government effectiveness and trust in government. *Journal of Policy Studies*, 39(4), 77–101. <https://doi.org/10.52372/jps.e672>
- Li, H., & Xu, J. (2024). Impact of Digital Government on Digital Transformation of Enterprises from the Perspective of Urban Economic Sustainable Development. *Sustainability*, 16(7), 2667. <https://doi.org/10.3390/su16072667>
- Mora, L., Kummitha, R. K. R., & Esposito, G. (2021). Not everything is as it seems: Digital technology affordance, pandemic control, and the mediating role of sociomaterial arrangements. *Government Information Quarterly*, 38(4), 101599. <https://doi.org/10.1016/j.giq.2021.101599>
- Mtebe, J. S., & Sausi, J. (2021). Revolutionization of Revenue Collection with Government E-Payment Gateway System in Tanzania: A Public Value Creation Perspective. *East African Journal of Science, Technology and Innovation*, 2(3). <https://doi.org/10.37425/eajsti.v2i3.248>
- Ngowi, N., Kissoka, G., & Pastory, P. (2025). Unlocking the potentials of Information and Communication Technology on citizen participation in Tanzania local government authorities: The citizen's perspectives. *Local Government Studies*, 1–24. <https://doi.org/10.1080/03003930.2025.2544927>
- Nurlinah, Ansar, M. C., & Chowdhury, K. (2025). Impact of government digital transformation on citizen trust and participation: Evidence from Gowa Regency, Indonesia. *Frontiers in Human Dynamics*, 7, 1700582. <https://doi.org/10.3389/fhumd.2025.1700582>
- Nyadzi, B. K., & Morris, J. C. (2026). E-Government and Public Trust in Developing Countries: A Systematic Review and Research Agenda. *International Journal of Public Administration*, 49(3), 178–202. <https://doi.org/10.1080/01900692.2025.2597453>