

Evaluation of the Opportunities Presented by the Adoption of E-Government in Enhancing Local Government Authority Performance at Kinondoni Municipal Council in Tanzania

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ABSTRACT

The study was done to assess the opportunities presented by e-government to improve local governance in KMC. A sample of 78 respondents was drawn from 348 employees across various departments. The objective of the study was to determine how e-government has improved performance of the local government. Five specific targets were examined where it was found adoption of e-government has significantly improved administrative efficiency and service delivery. Institutional and Resource Based View theories were used to give more explanations on the subject. A case study design was used in this study and data was collected using interviews, questionnaires and document review. Simple random sampling technique was used to obtain the non-administrative employees working from different departments of the KMC Office and purposive sampling method was used in obtaining the administrative employees who are the heads of departments of the KMC. Questionnaires, interview and documentary review are data collection methods which were used and analysis was carried out using Microsoft Excel and results were presented in the form of descriptive statistics. It was found that e-government improves the efficiency of social service delivery, improve accountability and transparency. Also it simplifies the decision-making process by improving information flow, allowing faster and more informed decision-making and improves information flow and data security. While e-government has improved communication and public service delivery, challenges such as outdated systems, financial constraints, technical issues, and legal and security concerns were identified as significant obstacles. In order to sustain its improvements there must be enough funding, provision of thorough training, the acquisition of sufficient resources, and the execution of efficacious change management tactics.

Keywords: E-Government, LGA's Performance, Social Service Delivery, Local Government, Kinondoni

I. INTRODUCTION

The desire to increase citizen engagement and participation, as well as the need for efficient and transparent government services have all contributed to the implementation of e-government programs in industrialized nations. According to Lynn et al. (2022) the deployment of e-government in developed nations like the US, Canada, the UK, and EU member states has been marked by a deliberate strategy that aims to use ICTs to revolutionize public service delivery and optimize administrative procedures. US, Canada, the UK and EU made significant investments in digital infrastructure, including broadband networks and safe online (Aleisa, 2024).

A number of African countries are embarking on large scale e-government projects with a view to bringing online services and digitizing government services. In Kenya, South Africa, and Rwanda, and in many other countries, eGovernment platforms and portals have been set up (Anas Ghassan et al., 2016). These are online tax filing services, business registration services and access to public information services. But these efforts have improved service accessibility, decreased administrative bottlenecks, and generally increased the general effectiveness of government operations. Adoption of e-government in African countries according to Aleisa (2024) has been enabled through partnerships between international organizations, funding agencies and stakeholders in the private sector. The implementation of the e-government in Tanzania has been in various phases, with the phases being distinguished by their own advancements and efforts used to harness information and communication technologies (ICTs).

Current body of research provides insights into the relationship between the adoption of e-government and other variables, including the provision of social services, accountability and transparency, economic development, and information flow. Despite these contributions, the exact ramifications of e-government adoption to Local Government Authorities (LGAs) are still unclear. While its use and effects at local government level have not been

studied as much as at the national and regional level. Deogratus et al. (2019) studies offer an insight into benefits and challenges of e-governance adoption in general Bangladesh, Sri Lanka, and Tanzania.

The e-government initiatives have been rolled out in phases in Tanzania, and the distinctions in phases reflect specific advancements combined with determination towards utilizing information and communication technologies (ICTs) to enhance government services delivery, improve efficiency of the administration, and encourage citizen involvement (Abdallah, 2020). In the 2000s, Tanzania prioritized building ICT infrastructure and capacity to lay the foundation for e-government. Initiatives such as the establishment of the Tanzania Telecommunications Company Limited (TTCL) and the Tanzania Communications Regulatory Authority (TCRA) were aimed at promoting access to internet and telecommunication services in the whole country. Tanzania began implementing specific e-government projects to ease governance and social service provision with the aim to improve citizen access to government information and make the provision of online services efficient.

1.1 Statement of the Problem

In the Tanzanian context, e-Government is about “Delivering quality services to the public through technology”. It involves using ICT to support processes within the government as well as for the delivery of services to beneficiaries, such as citizens, businesses and other organizations in all sectors. In that regard, the Government has long recognized the importance of enhancing service delivery through ICT. The key government strategy paper National Vision 2025 noted that “ICT opportunities can be harnessed to meet national development goals”. Meanwhile the medium term National Strategy for Growth and Reduction of Poverty (MKUKUTA), the Tanzania’s Mini Tiger Plan, and the Tanzania long Term Perspective Plan 2011/12-2025/26 emphasises the need to increase the application of technology in accelerating productivity (Gunda et al., 2015).

On the factors influencing the LGAs' ability to effectively implement e-governance it is well known that, well-crafted ICT policies and regulations significantly contribute to the uptake of e-government in different regions. Nonetheless, Bwalya (2018) on the obstacles impeding the LGAs' ability to adopt e-governance effectively reaffirmed that the lack of functional ICT facilities is a limiting factor. Using KMC as a case study, this paper seeks to close the existing gap by thoroughly analyzing the prospects for LGAs to implement e-government in an efficient manner. The goal of this study is to offer practical insights and suggestions that will guide Tanzania's local e-government strategies' creation and execution.

1.2 Research Objectives

- i. To assess the influence of e-government adoption on social service delivery within KMC
- ii. To investigate the effects of e-government implementation on accountability and transparency within KMC
- iii. To analyze the influence of e-government adoption on simplification of decision-making processes at KMC
- iv. To examine the relationship between e-government adoption and citizens' economic development within KMC
- v. To evaluate the influence of e-government adoption on information flow and data security within KMC

II. LITERATURE REVIEW

2.1 Theoretical Review.

This study used Institutional and Resource-based view theories to explain and guide the independent and dependent variables of the study. The theory that explains how formal and informal rules and institutions affect organizational behavior and productivity is known as institutional theory. Solomon and van Klyton (2020) established institutional theory to understand how social institutions might cooperate to optimize output; the theory suggests that an institution's productivity depends more on an individual's performance than on the performance of the institution's members collectively. According to the institutional theory, an institution's working environment, policies, and regulations play a significant role in shaping the relationship of the sides involved in the institution and the productivity of the institution. Institutional theory aids in the analysis of how LGAs' current institutional environments impact their capacity to successfully implement e-government projects in the context of e-governance (North, 1990).

The institutional theory looks at things like stakeholder relationships, organizational culture, and leadership that could help or hurt the implementation of e-government. Institution theory also shows that e-government provides a solid basis for institutional productivity and that the interconnectedness of e-governance in the institutional working environment, policies, and regulations plays a significant role in improving the relationship of the institutional stakeholders. According to the theory, local government areas (LGAs) like the KMC e-government serve as a conduit for interactions within the institution between the administration and its stakeholders, as well as between the citizens

and the administration, employees, and employees. Institutional theory facilitates our understanding of the underlying determinant of the long run performance, North (1990).

The Resource Based View (RBV) is the theory that indicates the need of having unique resources that can enable organization achieving its strategic goals. Barney (1991) said that, it aims to elaborate on imperfectly imitable firm resources that could potentially become the source of sustained competitive advantage. The theory indicates to gain the competitive advantages; an institution needs to focus on investing in unique resources capable of maximizing the productivity and performance of the institution towards achieving the strategic goals. RBV is the strategic management that emphasizes the role of internal resources and capabilities in determining a firm's competitive advantage and performance. RBV suggests that firms possess unique resources and capabilities that can provide them with a sustainable competitive advantage.

In the context of e-government adoption within LGAs, the e-government system is among the most useful resources that can maximize the performance of the LGAs specifically Kinondoni municipal council (KMC). The theory indicates through the adoption of e-government as the unique resource capable of maximizing the institution's performance, LGAs can effectively utilize technology, respond to citizen needs, and improve service delivery. RBV indicates that organization always relies on resources which are unique and hard to find in the market, installation of e-government is expensive and their facilities are expensive in the market thus there must be special policies and regulations for protecting the LGA's facilities. By applying the Resource-Based View, the researcher can gain a deeper understanding of how LGAs can leverage their internal resources and capabilities to effectively adopt and utilize e-government for performance improvement and service delivery enhancement.

2.2 Empirical Review

2.2.1 Influence of e-government adoption on social service delivery

According to the research done by Mansoor (2021), the researcher used the secondary data collection approach to examine various papers regarding the impact of digital technology in improving public service delivery to perform the study on the digital government strategies that affect public services. The researcher documented findings on digital era governance using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) standard. It emphasizes how important government portals are to decentralization and lessening the load on the state. Comprehensive government portals and digital services for social benefits are essential. The report highlights the popular social contract paradigm of government as a platform. However, it notes that one of the biggest obstacles to designing digital policies is a lack of expertise in technology.

Hasan et al. (2024) carried out in Saudi Arabia on adoption of e-government. The study used data from 282 respondents to empirically test UMEGA and an expanded version of it. The majority of the UMEGA relationships that were hypothesized were found to be supported, except for effort expectancy and attitude. The expanded model fared better than the original because it explained more variance in attitudes and behavioral intention. As for attitudes, they were strongly influenced by perceived risk, performance expectancy, social influence, and computer self-efficacy; behavioral intention was directly influenced by attitudes, facilitating conditions, government and Internet trust, and trust. These results highlight the necessity of fine-tuning e-government adoption models for various scenarios and offer guidance for government policies in Saudi Arabia (Hasan et al., 2024).

2.2.2 The Influence of E-Government Adoption on Citizens' Engagement in Decision-Making Processes

Mussa et al. (2023) studied the link between digital technology and citizen participation in the development of urban space. It relied on secondary data drawn from empirical studies of earlier papers and articles regarding digital transitions and citizen participation. The results suggest that adoption of e-governance significantly impacts citizens' participation in decision making processes. And by examining various sources, the study found that digital technologies are critical to motivating public participation in urban development projects. In conclusion the study emphasized the importance of utilizing e-government tools to enhance participatory processes and advance a more inclusive and democratic urban governing systems. Overall, the study has shown to how digital technology could reinvent the urban development context by giving power to the residents and nurturing cooperation in the decision making (Mussa et al., 2023).

In the research conducted by Owusu et al. (2022), they carried out their study to assess the feasibility of e-governance and e-government service delivery during the 2020 national lockdown, focusing on the provision of e-health, e-education, and e-municipal service delivery, primarily using qualitative techniques: theoretical and documentary analysis.s. Results highlight that government's inability to create inclusive ICT infrastructure particularly in rural areas. Initiatives to expand network coverage and provide free access to basic e-services have not been able to curtail poverty and inequality. To bridge the rural and urban divide, the South African government should

instead build ICT infrastructure in rural regions and train rural people on how to use ICT. In this strategy, accessibility and reducing inequalities in the provision of e-government services is improved (Owusu et al., 2022).

2.2.3 The Relationship between E-Government Adoption and Citizens' Economic Development

According to Sulieman et al. (2022) research on how public adoption of the digital innovations made a difference to the local economic development, their premise being that how much did the digital innovations improve productivity of business and reduce operational costs. The study used the case study research design in which the study was carried out with three public institutions engaged in economic development initiatives and a qualitative research design was used. The report finds that the use of digital innovation in the public sector strengthens public institutions' capability to strengthen their competitive edge, lower operating expenses and to increase revenue collection. The marginal investments in digital innovation are shown to allow public organizations to better achieve their economic strategic goals.

Mwilongo and Kachota (2024) also carried out a study on the impact of e-governance in government development projects management in Tanzania. The objective of the study was to ascertain the extent to which e-governance adoption has markedly enhanced the quality of project development goals and their readiness for accomplishment. For the study, data from 210 respondents were gathered using a mixed research approach and case study research design. The field results indicated that e-governance adoption allowed responsible authorities to monitor the monies invested in development projects strengthen relationship with stakeholders. The data confirmed for the researcher that public organizations with successfully implemented well thought through e-governance systems are best positioned to meet strategic objectives.

2.2.4 The influence of e-government adoption on information flow and data security

The work of Sapraz (2023) examined how e-governance adoption has impacted accountability and transparency in Sri-Lanka. The researcher wanted to look at how digital technologies can be used to allow the access of information from public institutions. The qualitative research design was used to analyze documents and conduct interviews. The study found that the e-governance efforts enhanced transparency by enhancing data systems and making public sector processes accessible to citizens. Other issues — from threats posed by cybersecurity to divisions caused by the digital divide — have been flagged. Overall, the use of technology to address technology gaps and cybersecurity risks in e-governance, even though the practice improves accountability and transparency (Sapraz, 2023) is necessary to achieve sustainable governance.

Mushi (2024) also conducted research in Tanzania to examine whether e-governance is linked to openness and accountability. They aimed to see how digital technology influences data security and information flow in government agencies. Using a mixed methods approach, they reviewed official papers and conducted interviews. The results revealed that e-governance platforms have promoted citizen supervision of public spending and enabled realtime monitoring of government programs. However, interoperability and data privacy were mentioned as difficulties. Also, while e-governance contributes to openness and accountability, technology problems need to be fixed before the governance can be as effective (Mushi, 2024).

III. METHODOLOGY

This article adopts a case study design which assisted the researcher in conducting an exhaustive investigation on the assessment of the effectiveness of e-government in improving social service delivery at KMC. This study was carried out at KMC, which is a familiar environment to the researcher hence it was easy to discover, acquire, and collect the required potential information which was analyzed to develop study findings. Also, simple random sampling was applied to select 78 employees from a variety of employment positions for this study as the study sample size. The researcher applied the Purposive Sampling Technique and Simple Random Sampling to obtain a sample size of 78 employees. Purposive sampling was an appropriate method where the researcher intentionally selected employees who perform their daily activities through ICT to find in-depth information.

In data collection, a researcher used a questionnaire and interview for primary data and a documentary review for secondary data from various official documents and published literature and reports to seek the anticipated information. The researcher applied both quantitative and qualitative data analysis where information obtained through the questionnaires was analyzed by using Microsoft excel.



IV. FINDINGS & DISCUSSION

4.1 Gender of Respondents

Table 1 below shows that female respondents were 31 representing 40%, while 47 respondents representing 60% were male. This demonstrates that male respondents formed the majority of the target population than female. This is a clear indication that both genders were adequately represented.

Table 1
Gender

		Frequency	Valid Percent
Gender	Female	31	40
	Male	47	60
	Total	78	100.0

4.2 The Impact of E-Government on Social Service Delivery

Table 2
Illustrates the Influence of E-Government on Social Service Delivery

Response Category	Percentage (%)
Large Extent	70
Large Extent	20
Not Sure	6
Not at all	4
Total	100

About (70%) of the respondents when they were asked about the impact of e-government adoption on social service delivery within KMC is effective and efficient in delivering social services they answered to a large extent it had impact while 20% of the respondents said to some extent while 6% of respondent they were not sure has Greatly improved the efficacy and efficiency of the provision of social services. KMC is faced with streamlined administrative duties through the digitization of processes, resulting in a reduction of the time and effort needed by citizens to access key services.

This change has resulted in a more responsive and citizen-centric approach by reducing bureaucratic delays, increasing transparency, and improving accountability. Furthermore, improved data management and resource allocation made possible by e-government efforts guarantee that social services are provided more fairly and in a way, that best meets the requirements of the community. Overall, people's trust and happiness have increased because of the government's use of digital tools, which has significantly improved the delivery of public services. When respondents asked about how E-government has influenced social service delivery in KMC gave their different opinions while one of them said,

“knowing the importance of digitalizing social service delivery a lot of delays have been reduced, services reach to the community instantly on time such as paying different government bills and taxes e-government has made it easier for both providers and receivers of social services” (KMC Staff June, 2024)

This result was supported by a study done by Masunga et al. (2020) who made the correct observation in their study that when citizens believe their government is ready to provide them with services, they would be more likely to embrace e-government programs. If not established and authorized, citizens will not be likely to request or get government e-services. Said (2015) revealed that similar to this, a study investigating the opportunities brought by the adoption of e-government in enhancing LGA's performance one of the main tasks carried out by (TTMS) is the collection, generation, and detail of all records resulting from money transactions and voice or (SMS) interactions. These are digital records. Evidence of all telephone conversations is recorded and preserved for future use by automatically gathering and storing them. This encourages citizens to transact business electronically with confidence.



4.3 The Effects of E-Government Implementation on Accountability and Transparency

Table 3

Illustrates the Effects of E-Government Implementation on Accountability and Transparency

Response Category	Percentage (%)
Large Extent	70
Some Extent	12
Not Sure	12
Not at all	6
Total	100

About of (70%) of the respondents when they were asked about the effects of e-government implementation on accountability and transparency within KMC they answered to a large extent the effect of e-government implementation on accountability and transparency had impact in KMC while 12% of respondent they said to some extent Has significantly improved municipal governance's transparency and accountability.

E-government technologies have decreased the potential for corruption and misappropriation of public monies by digitizing records and processes, making it simpler to monitor and audit governmental acts. By guaranteeing that the public has access to information regarding public policy, financial plans, and service delivery, this transparency promotes an atmosphere that is more transparent and inclusive. Furthermore, real-time reporting and monitoring are made possible by digital platforms, which aid in keeping public servants responsible for their deeds and choices. As a result, e-government has increased public confidence in the administration of the municipality and fostered an honest and transparent public service culture. Some respondent when asked about giving their views on the effects of e-government implementation on accountability and transparency within KMC commented gave their different views while one of them said,

“Recognizing the relationship between e-government and transparency, stakeholders are included through digital platforms and are aware of services that we provide and enable us to reach the society as fast as we can through electronic means as far as they have access to all the information.” (KMC Staff June, 2024)

This result was supported by the study done by Mashaka et al (2019), conducted a study on incorporating indigenous perspectives in provision of e-government services: The case of Tanzania. In: 15th International Conference on Social Implications of Computers in Developing Countries (ICT4D). The purpose of this study was to determine the degree to which records management practices promoted accountability in the Public Service Reform Programmed (PSRP) in a few chosen Tanzanian ministries.

4.4 The Influence of E-Government Adoption on the Simplification of Decision-Making Processes

Table 4

Illustrates the Influence of E-Government Adoption on the Simplification of Decision-Making Processes

Response Category	Percentage (%)
Large Extent	67
Some Extent	23
Not Sure	10
Total	100

The decision-making procedures in KMC have been made simpler by the use of e-government. About of (23%) of respondent they answered to some extent E-government has facilitated information flow by combining digital tools and platforms, enabling speedier and better-informed decision-making while 67% answered to a large extent it has facilitated simplification of decision making process. Real-time insights and feedback are provided by data analytics and automated technologies, which lessen the need for laborious bureaucratic processes and manual data management. This technological change has enhanced departmental cooperation and communication, resulting in a more effective and unified government. It enables stakeholders to take part in decision making. Stakeholders include the general public, government representatives, and KMC staff.

Furthermore, e-government's transparency guarantees that choices are supported by reliable and easily accessible data, which promotes more responsible and responsive municipal management. In general, the use of e-government has resulted in a more effective, transparent and inclusive government. One respondent when asked about



their view on the influence of e-government adoption on the simplification of decision-making processes at the KMC responded

“E-government influences stakeholders in the decision-making process as it guarantees that everyone is aware of the possible problems and services that we provide and may participate in giving out views on how we conduct our daily operations.” (KMC Staff June, 2024)

While KMC’s adoption of e-government offers tremendous potential to improve the functioning of Local Government Authorities (LGAs), it also facilitates decision making through electronic records systems.

Deficits in staff training and aversion to change hinder the shift from conventional paper-based procedures. Complicated legal constraints and security considerations further complicate sensitive information handling. Despite these obstacles, e-government has the potential to improve decision on service delivery, expedite procedures, cut down on bureaucratic hold-ups, and increase transparency all of which will contribute to the development of a more effective, transparent, and responsive local government.

The study was grounded in the idea that government ministries must make sure that records are properly managed at all times. As illustrated by Mafwiri (2020) it is essential to preserve evidence of organizational business transactions as well as efficient and effective provision of public services to simplify decisions that is made by local governments.

4.5 The Relationship between E-Government Adoption and Citizens' Economic Development

Table 5

Illustrates the Relationship between E-Government Adoption and Citizens' Economic Development

Response Category	Percentage (%)
Large Extent	60
Some Extent	40
Total	100

The economic prosperity of the residents of KMC has been positively impacted by the implementation of e-government. (60%) of respondents answered to large extent E-government initiatives have made it easier for businesses and entrepreneurs to access information and services online, which has decreased administrative expenses and hassles. This has created an atmosphere that is more favorable for economic operations. Simplified procedures for registering businesses, paying taxes, and obtaining permits have boosted local company expansion and drawn in new capital. Furthermore, increasing public engagement and economic participation have resulted from improved efficiency and openness in municipal governance. Additionally, e-government platforms and digital literacy initiatives have equipped residents with the knowledge and resources necessary to thrive in the digital economy, spurring economic growth and raising community standards of living. Some respondents when asked about their view on the relationship between e-government adoption and citizens' economic development within Kinondoni Municipal Council one of them said,

..”(KMC Staff June, 2024) “Recognizing the relationship between e-government adoption and citizens' economic development within Kinondoni Municipal Council, it has reduced expenses, paperwork in our daily operations and made it easier for access of information and made it easier for business registration as well as paying taxes.”

Outcomes concur with Kisoka (2020) who observed that improved data management and interdepartmental cooperation has facilitated e-government projects, which will result in better resource allocation and decision-making. All things considered the incorporation of e-government practices is expected to promote a more accountable, responsive, and effective local government, which will eventually increase public economic development and confidence in municipal councils.

4.6 The Influence of E-Government Adoption on Information Flow and Data Security

Table 6

Illustrates the Influence of E-Government Adoption on Information Flow and Data Security

Response Category	Percentage (%)
Large Extent	50
Some Extent	34
Not Sure	16
Total	100

By making information more easily, (50%) of respondents answered to a large extent accessible, effective, and transparent, e-government has greatly enhanced information flow in KMC. This has increased interdepartmental communication and streamlined the provision of public services. To secure sensitive data from cyber threats and maintain the integrity of the system, this transition also presents data security challenges that call for strong cyber security measures, stringent data privacy laws, ongoing employee training, and efficient incident response plans. Therefore, even though the use of e-government increases accountability and operational efficiency, it necessitates careful data security management to uphold public confidence and prevent security breaches. One of the respondents when asked about his view on the impact of e-government adoption on information flow and data security within KMC he answered that

“Though it has increased information flow among departments, there is a need of creating and implementing strict cyber security rules and regulations that require security standards and procedures as one way to address it. To monitor and control cyber threats, governments can also set up specialized cyber security departments or agencies” (KMC Staff June, 2024)

Using advanced data analytics can help with resource allocation and decision-making that is better informed. Indeed, Kagoya and Mbamba (2021) echoed that, to make use of these prospects, technological challenges including maintaining compatible and up-to-date systems, strong cyber security defenses, and sufficient staff training to make the most of these new tools are problems for many staff at KMC. In order to deal with these problems the following are to be dealt with:

4.6.1 Enough Resource Allocations

The realization of e-government opportunities in improving local government authorities (LGAs) performance in KMC faces a challenge of poor resource allocation. Advanced e-government systems need to be able to invest enough funds in infrastructures, software, and constantly up to date technological advancements. Additionally, personnel require an adequate skills base so that they are able to manage and operate these systems, as well as having ongoing monitoring and professional development programs (Twizeyimana & Andersson, 2019).

In the same vein, Wahid (2018) asserted that when the budgets are limited, these essential investments are hampered, which in turn prevents the alteration to more cost effective digital advancements. These limits notwithstanding, incremental implementation of e-government solutions can yield improved service delivery, increased transparency and accountability and more efficient decision making.

4.6.2 Staff Training and Expertise

Implementation of e-government at KMC is fair but has major problems pertaining to the training and skills of employees. There has to be enough training for a workforce to be skilled at handling electronic government. Yet, lack of strict expertise and experience with these technologies result in inefficiencies and resistance to change.

The lack of thorough and ongoing training programs exacerbates the problem: Employees aren't taking full advantage of the features that e-government platforms can provide. KMC will have to invest heavily in training and programs that enhance digital knowledge, provide ongoing support and promote a culture where workers learn continuously. According to Abdallah (2020), this will guarantee that staff members are well prepared to identify the full advantage of e-government on further services that are offered to the public.

4.6.3 Security Concerns

Security in a KMC is a major obstacle for e-government implementation. Moving people to digital platforms exposes them to more online risks like data ruptures, hacking, and private data being accessed illegally. Provisions of strong cyber security are required to maintain public confidence in e-government systems and protect public personal information. To do this, it entails finding and implementing robust encryption, performing regular security assessments, and writing extensive incident response procedures.

In addition, staff members should be taught cyber security paramount practices to avoid making mistakes that can jeopardize data reliability. To achieve the effective and long term adoption of e Government, security issues need to be addressed and digital services are dependable and safe for all users. This concern was met with one of staff members from KMC responding.

“Though it has increased information flow among departments, there is a need of creating and implementing strict cyber security rules and regulations that require security standards and procedures as one way to address it. To monitor and control cyber threats, governments can also set up specialized cyber security departments or agencies” (KMC Staff June, 2024)

This is supported by Aleisa (2024) who agreed that availing strong cyber security is paramount to preserve public confidence in e-government systems and protect public personal information.

4.6.4 Resistance to Change

Change resistance is a major obstacle to e-government implementation in KMC. They are afraid of implementing new digital technologies because the employees are used to paper based processes and are accustomed to the status quo. It could be opposition due to lack of knowledge of the benefits of e-government or insufficient guidance and training.

In addition, a culture that is afraid of changing and entrenched in bureaucratic performance may make the transition far more difficult. Change resistance is seen to be a major obstacle to the implementation of e-government at KMC; it is linked to the lack of strong leadership, effective communication about the benefits of e-government as well as extensive training programs to enhance the proficiency and confidence in its use. According to Mafwiri (2020) this resistance has been resulting from the fact that they are not familiar with the benefits of e government, the fear that they will not be confident enough in their jobs, or lack of support and training.

V.CONCLUSION & RECCOMMENDATIONS

5.1 Conclusions

Finally, the KMC's adoption of e-government, by providing digital platforms for important service such as tax payment and certificate issuance applications, has greatly enhanced administrative efficiency and service delivery. However before we can consider e-government adoption in KMC as successful there are still several issues, including absence of IT infrastructure, inadequacy of skilled PMs, financial unavailability, and resistance in staff and civilians to change.

To ensure enduring success and durability e-government it is commanding that these problems are dealt with by allocating resources for better infrastructure, supply of training, finance and transformational change management.

5.2 Recommendations

Finally, the study suggests several measures that can be adopted by KMC for improving its e-government implementation. Such elements include heavy investments in a strong IT infrastructure to ensure availability and service delivery effectiveness; and provision of ongoing staff training and education on digital knowledge and ease of change to online services.

E-government system maintenance and advancements require adequate funding. Implementing efficient change management technique will help overcome unwillingness to the new technology as well as create an inventive and acceptable culture in KMC employees and the public.

REFERENCES

- Abdallah, J. B. (2020). *Factors influencing the implementation of e-government initiatives in Tanzania: A case of the president's office- regional administration and local government* (Master's dissertation). The University of Dodoma, Dodoma. <http://hdl.handle.net/20.500.12661/2833>
- Aleisa, N. (2024). Key factors influencing the e-government adoption: A systematic literature review. *Journal of Innovative Digital Transformation*, 1(1), 14–31.
- Anas, G. K., Shahizan, B. H., & Arfan, S. (2016). A conceptual model for e-government success factors in developing countries. *International Journal of Scientific and Research Publications*, 6(12), 39–44.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(5), 99-120. <https://doi.org/10.1177/014920639101700108>
- Bwalya, K. J. (2018). E-government maturity models. In *Decolonisation of E-Government Research and Practice: Exploring Contextual Issues and Opportunities in Africa*, 5(3), 137–159. <https://doi.org/10.4102/aosis.2018.bk72.05>
- Deogratus, D., Maiga, G., & Eilu, E. (2019). A framework for enhancing the adoption of e-tax services in Tanzania. *International Journal of ICT Research in Africa and the Middle East*, 8(2), 1–17.
- Gunda, E. J. P., Kopoka, P. A., & Kihonge, E. (2015). Role of e-government in delivery of public services in Tanzania Electric Supply Company in Ruvuma region, Tanzania. *International Journal of Scientific & Technology Research*, 4(6), 242–251.
- Hasan, A., Alenazy, A. A., & Habib, S. (2024). Examining the drivers and barriers to adoption of e-government services in Saudi Arabia. *Journal of Innovative Digital Transformation*, 1(1), 1–19.

- Kagoya, S., & Mbamba, U. (2021). User participation approach to key attributes of e-government implementation in developing countries: A case of Tanzania. *Business Management Review*, 24(1), 87–107.
- Kisoka, R. E. (2020). *Factors affecting the use of e-government services in Tanzania: A case study of NECTA* (Master's dissertation). Mzumbe University, Morogoro. <http://hdl.handle.net/11192/4650>
- Lynn, T., Rosati, P., Conway, E., Curran, D., Fox, G., & O’Gorman, C. (2022). Bringing it all together: The digital town readiness framework. In *Digital Towns* (pp. 165–206). Springer.
- Mafwiri, N. R. (2020). *Assessment of the challenges of adapting e-government service in Tanzania: A case of Dar es Salaam water and sewerage authority* (Master's dissertation). Mzumbe University, Morogoro. <http://hdl.handle.net/11192/4594>
- Mansoor, M. (2021). Citizens’ trust in government as a function of good governance and government agency’s provision of quality information on social media during COVID-19. *Government Information Quarterly*, 38(4), 101597.
- Mashaka, B., McBride, N., & Wakunuma, K. (2019). Incorporating indigenous perspectives in provision of e-government services: The case of Tanzania. In *15th International Conference on Social Implications of Computers in Developing Countries (ICT4D)*, May 2019, Dar es Salaam, Tanzania, pp. 192–202.
- Masunga, F. J., Mapesa, H. J., & Nyalle, M. A. (2020). Influence of e-tax system on tax revenue collection in Tanzania large taxpayers: A prior and posterior analysis. *Journal of Accounting Finance and Auditing Studies (JAFAS)*, 6(4), 44–63.
- Mushi, R. M. (2024). Assessing the factors influencing intention to use e-government in Tanzania: The perspective of trust, participation, and transparency. *Journal of Electronic Business & Digital Economics*, 3(2), 156-169. <https://doi.org/10.1108/JEBDE-08-2023-0017>
- Mussa Ali, M., Mudiarasan, K., & Apparow, S. (2023). Successful factors influencing adoption of e-government services in Zanzibar City. *International Journal of Law, Government and Communication*, 8(34), 01-21.
- Mwilongo, K. J., & Kachota, B. (2024). A systematic review of the extant literature on the Tanzanian e-government services for economic development. *Information Development*, 0(0). <https://doi.org/10.1177/02666669241286826>
- North, D. C. (1990). *Institutions, institutional change and economic performance* (p. 33). Cambridge University Press.
- Owusu, A., Akpe-Doe, C. E., & Taana, I. H. (2022). Assessing the effectiveness of e-government services in Ghana: A case of the registrar general’s department. *International Journal of Electronic Government Research (IJEGR)*, 18(1), 1–23.
- Said, S. H. (2015). *Investigation of usability shortcomings on the user interfaces of web-based e-government systems: A case of Tanzania* (Master's dissertation). The University of Dodoma, Dodoma. <http://hdl.handle.net/20.500.12661/771>
- Sapraz, M. (2023). An e-government design science research in Sri-Lanka facilitating collaboration between the government and citizens for environmental sustainability. *Doctoral Thesis in Computer and Systems Sciences*. Stockholm University, Sweden.
- Solomon, E. M., & van Klyton, A. (2020). The impact of digital technology usage on economic growth in Africa. *Utilities Policy*, 67, 101104.
- Sulieman, A. S., Eleyan, H. D., & Alkhateeb, M. (2022). E-government: Limitations and challenges: A general framework for both developed and developing countries. *International Journal of Scientific & Technology Research*, 11(1), 97–103.
- Twizeyimana, J. D., & Andersson, A. (2019). The public value of e-government – a literature review. *Government Information Quarterly*, 36(2), 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>
- Wahid, H. B. (2018). E-government for Tanzania: Current projects and challenges. *International Journal of Engineering Science and Computing*, 8(1), 15911–15918.