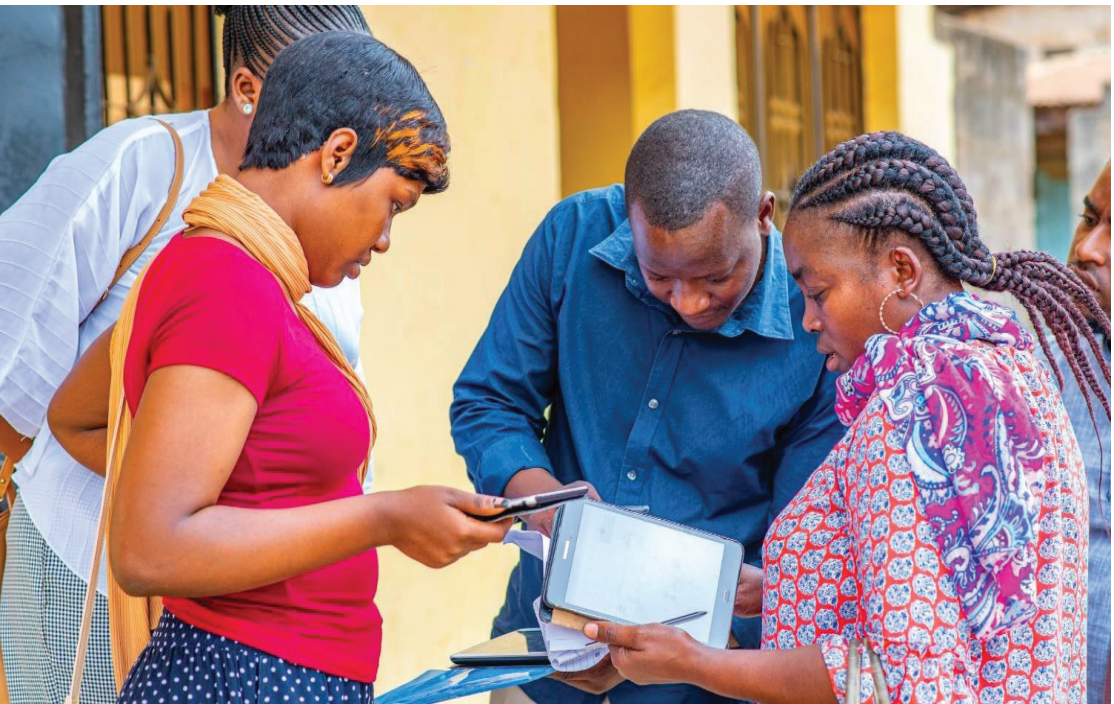
Factors influencing Online Citizen Engagement at the Local Level in Tanzania

Hubert Shija

Research Report 2024/02



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ABSTRACT

This research examines factors influencing the adoption of online citizen engagement at the Local Government level in Tanzania. The study employs a mixed-method approach to analyse online engagement through the lenses of the Diffusion of Innovation (DOI) theory in four urban local government authorities in Dar es Salaam and Mwanza regions. Findings show that the adoption of e-participation is at the initial stages. Further, adoption rates vary vertically being higher at the Higher Local Government (HLG) level, and lower at Lower Local Government (LLG) level. The adoption of e-participation adoption is found to be conditioned by the Information and Communication Technology (ICT) environment, government norms, ICT literacy and cost, and awareness among citizens and LLG leaders. The research implies that DOI power will increase when innovation testing is also included in the redesigning/ restructuring stage of the organisation's innovation-decision process. It also implies that the pace of adopting e-participation will increase when the ICT environment nationally and in LLG offices is improved, and necessary guidelines are put in place. Keywords: democracy, citizen engagement, internet, adoption, local government, Tanzania

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1 INTRODUCTION

The Internet has increased efficiency in various domains of life (Castells, 2009; World Bank, 2016), including citizen engagement (Whyte, Macintosh, & Shell, 2006). However, the utility of the internet is affected by a digital divide in connectivity (Rogers, 2003; Whyte et al., 2006; World Bank, 2016) and functional literacy issues (Rogers, 2003; World Bank, 2016). Long before the advent of the internet, Local Governments had proved to be effective platforms for the inclusion of citizens in decision-making in multiple domains, including service delivery and democratic governance (Organisation for Economic Cooperation and Development (OECD) 2009; UNDP 1993). Local government Authorities (LGAs) worldwide have adopted online citizen participation, to enhance citizens' involvement in decision-making processes (Bonson, Torres, Royo, & Flores, 2012; Holzer & Manoharan, 2016; United Nations, 2020), with variable success and degree across councils and nations (Bonson et al., 2012; Ellison & Hardey, 2014; Holzer & Manoharan, 2016; United Nations, 2020).

Research into this innovation has relied on different methods and concepts to explain its adoption (Cullen, 2010). For example, a recent study by the United Nations relies on extensive use of proxies in its analysis of the phenomenon in Dar es Salaam. The study equates, the availability of information and e-participation features on councils' websites representing the adoption of local e-participation with the adoption of e-participation (Holzer & Manoharan, 2016; United Nations, 2020). Other studies such as Bonson's et al. (2012) and Whyte's et al. (2006) have also included the usage of the information and engagement features available on councils' websites. Astrom, Karlsson, Linde, and Pirannejad (2012) suggest that the inclusion of usage to examine e-participation provides comprehensive understanding, and Massanja (2018); Pirannejad, Janssen, and Rezaei (2019); and Whyte et al. (2006) already demonstrated that it is the appropriate methodological approach to study e-participation.

ICT diffusion and adoption in Tanzania have increased in the last few years; for example, by mid-2022, there were 56 million mobile phone subscriptions (Tanzania Communications Regulatory Authority, 2022) compared to 15.6 million in 2010 (United Republic of Tanzania, 2010). Likewise, there were 29 million Internet subscriptions in mid-2022 (Tanzania Communications Regulatory Authority, 2022), while there were 0.5 million subscribers in 2010 (United Republic of Tanzania, 2010). The use of the Internet has increased because of the advancement of ICT devices and wireless technologies (United Republic of Tanzania, 2016b). The Central and Local Governments in Tanzania have also adopted ICT to improve service delivery and public participation in decision-making processes (United Republic of Tanzania, 2014, 2016a, 2017); for instance, according to the Local Government Reform Programme II, all LGAs had to have web sites by 2010/ 2011 (United Republic of Tanzania, 2009, pp. 67, 175).

Despite the promising reforms, there is limited documentation of the adoption of local e-participation in Tanzania notwithstanding the2020 United Nations' (2020) Local Government e-participation survey. Moreover, that knowledge is less comprehensive because not only did the survey use an unreliable proxy, but it was also limited in scope as it included only one council from Tanzania. Further, when that council was included for the first time, it did not involve the lower Local Government directly. Again, other Local Government participation studies conducted in Tanzania like Chaligha's (2008, 2014) did not include e-participation though they were carried out more than a decade ago.

The purpose of this research is to examine factors influencing the adoption of e-participation in Local Government in Tanzania. Content analysis, questionnaire survey, and semi-structured interview were used to collect data. Data sources were councils' websites and social media pages, citizens, central and Local Government officials, and local elected leaders. The collected data were analysed quantitatively and qualitatively.

Inquiry is guided by four specific research questions focusing on different aspects of e-participation as guided by the Diffusion of Innovation framework of analysis. First, to what extent do councils publish information on their websites and social media pages for citizens to access? Second, to what degree do citizens use the councils' online information? Next, to what extent do councils and citizens interact, and do councils consult with citizens using their online interactive tools like social media pages? Finally, to what degree do councils consider citizens' e-views in decision-making processes?

Diffusion of Innovation (DOI) theory informed the conceptual and analytical framework of this research. The theory has two main assumptions: first, the individual people and organisations innovation-decision is a process with five stages (Rogers, 2003). Second, innovation and innovativeness features like relative advantage, compatibility, income, social networks; communication; and social system aspects such as norms, social structure, innovation decisions, and influencers influence the adoption of innovation (Rogers, 2003; Rogers & Shoemaker, 1971).

This report is organised as follows: Chapter One sets a stage, Chapter Two provides a review of the literature, methodology chapter shows a scientific process, procedures, and principles. The results chapter is about the exposition of magnitude and patterns of the adoption of the practice, while a discussion chapter provides the summary of results and their interpretation. Conclusions is the closing chapter which presents the main argument.

2 LITERATURE REVIEW

This section synthesizes the literature on the Local Government system in Tanzania, existing e-participation adoption knowledge, e-participation conceptualisation, theoretical propositions, and appropriate research methodology and methods.

2.1 LOCAL GOVERNMENT IN TANZANIA

In the late 1990s, Tanzania changed the Local Government form from decentralisation by deconcentrating and delegation to decentralisation by devolution (D-by-D) to improve the quality of service delivery and democracy (United Republic of Tanzania, 2005, 2008). D-by-D allows citizens to participate in addressing their needs (United Republic of Tanzania, 2009). The primary goals of Local Government reforms were increased effectiveness, efficiency, accountability, and equal and fair resource distribution (United Republic of Tanzania, 2008, 2009). The reforms sought to extend the reach of Structural Adjustment Programmes (SAPs), poverty reduction strategies, and public service reforms (Japan International Cooperation Agency, 2008).

The Local Government system in Tanzania has an administration structure designed to realise the provision of good services to citizens through the devolution of political, financial, and administrative power to Local Government authorities (LGAs) (United Republic of Tanzania, 2008). The President's Office - Regional Administration and Local Government (PO - RALG) oversees the local authorities, and the administrative units are region, district, division, ward, village, Mtaa, and hamlet (United Republic of Tanzania, 2008). The region, district, and division are local offices of the central government for national administration, while councils are for local administration (United Republic of Tanzania, 2008). There are urban and rural councils (United Republic of Tanzania, 2008). The urban councils comprise the city, municipal, and town councils, while rural councils consist of district councils (United Republic of Tanzania, 2008). The lower levels in urban councils are wards and Mitaa, while in the district councils are townships, wards, villages, and hamlets (United Republic of Tanzania, 2008). In the rural councils, there are village councils, and village assemblies, while in urban councils, there are 'Mtaa' assemblies and committees (United Republic of Tanzania, 2019).

Successive local government reforms have promoted increased involvement of citizens directly in delivering services in their areas, despite their level of expertise, they participate in the planning and implementation of the projects (United Republic of Tanzania, 2004). However, half of the plan is done at the council level (HLG) and another half at the village and Mtaa level (LLG) (United Republic of Tanzania, 2004, p. 12, 2019). The LLG planning is the preliminary council planning (United Republic of Tanzania, 2019). The planning method, which is used, is called the opportunities and obstacles to development (O&OD) (United Republic of Tanzania, 2019).

As the planning process shows, citizens aged 18 and above participate in the process at the hamlet and Mtaa level (United Republic of Tanzania, 2004, 2019) through the representation approach (United Republic of Tanzania, 2007a, 2007b, 2019). However, all citizens provide their views on community development and action plan drafts and approve the final plans before submitting them to the Ward Development Committee (WDC) (United Republic of Tanzania, 2019). The facilitators ensure that all interest groups such as old adults, women, and the disabled from all hamlets and Mitaa are equally represented in the planning team (United Republic of Tanzania, 2004, 2019).

With the help of a facilitator, citizens' representatives use Focus Group Discussion to provide their inputs and deliberate on their plans (United Republic of Tanzania, 2007a, 2007b). HLG level incorporates the LLG level plans in the council plan, which includes large-scale projects (United Republic of Tanzania, 2019). Also, the HLG provides moral, technical, financial, and material support if needed throughout the implementation phase (United Republic of Tanzania, 2019).

Citizens also have an opportunity to give their views on their affairs at the local level through meetings (United Republic of Tanzania, 2009). However, some research indicates that some citizens do not participate in Local Government decision-making processes (Chaligha 2008, 2014; OECD 2009). For example, citizen participation in planning, committee, and Mtaa/ village assembly meetings was found to be low in the six LGAs of Bagamoyo, Ilala, Iringa, Kilosa, Moshi, and Mwanza (Chaligha, 2008, 2014). Chaligha (2014) expounds that less educated people – with primary education, males, and youth were more active in taking part in Local Government decision-making processes than more educated, females, and elders.
OECD (2009) enumerates major reasons for citizens not to participate in public decision-making processes. The reasons are language barrier, culture, socio-economic status, disability, distance, time, interest in public affairs, and trust in government. Chaligha (2014) covered this topic but did not examine the factors of low participation of citizens in Local Government policy decision-making processes in the six LGAs. However, before 2014, it was revealed that poor communication between LGAs officials was the main reasons for poor citizen participation in meetings (Chaligha, 2008). OECD (2009) recommended the use of the Internet to address the problem of low participation of citizens in public decision-making processes.

2.2 INTERNET AND CITIZEN PARTICIPATION

The Internet enables access to information, participation in decision-making processes, and responsiveness at the national and local levels (United Nations, 2022; World Bank, 2016). Further, it has made citizen engagement more open and inclusive (Whyte et al., 2006). In other words, it complements physical citizen engagement (Jensen, 2013; United Nations, 2014, 2022) and addresses physical participation issues like limited time, physical space, and distance (OECD, 2009). Various countries have adopted online citizen participation at the local level, but many are at the early stage; that is, information provision (Bonson et al., 2012). For example, the EU and England's local authorities have not reached the e-consultation and e-decision-making stages (Bonson et al., 2012; Ellison & Hardey, 2014). These two levels are critical in online citizen engagement because they complete a democratic practice, but all stages are interdependent (United Nations, 2016). However, there are successful councils like the Scottish local councils, which increased the flow of information, interactive consultation, and incorporation of citizens' views into the final decisions after adopting e-participation (Whyte et al., 2006).

The literature also shows the factors that influence e-participation adoption by the Local Government. For example, awareness and network effect accelerated the adoption of the practice in the Scottish community authorities (Whyte et al., 2006) and some municipalities worldwide (Holzer & Manoharan, 2016). In the Scottish local communities study, the networks were of individual people (Whyte et al., 2006), while in the worldwide municipalities survey, they were of countries like the OECD (OECD) (Holzer & Manoharan, 2016). Because the innovation is interactive (Rogers, 2003), the interaction between officials and citizens increased the adoption rate in the Scottish local communities (Whyte et al., 2006), while poor interaction in English and EU led to a poor practice adoption rate (Bonson et al., 2012; Ellison & Hardey, 2014). It was council officials in the English and EU who contributed to poor interaction because they barely reacted to citizens' postings and comments (Bonson et al., 2012; Ellison & Hardey, 2014).

The Scottish local community authorities adopted e-participation because it met their needs to improve decisions and promote democracy (Whyte et al., 2006). In contrast, English authorities adopted only e-information to supplement their websites to disseminate information and news rather than consulting citizens and improving democracy (Ellison & Hardey, 2014). Also, concerning e-consultation, the Scottish local community authorities were ready to change their structure (Whyte et al., 2006), while the English and EU were not (Bonson et al., 2012; Ellison & Hardey, 2014). Furthermore, some EU municipalities, which originated from the region formerly called the Eastern Bloc, were more bureaucratic (Bonson et al., 2012). Also, English councils' officials had a negative attitude towards the use of third-party social media to engage people because government security might be compromised (Ellison & Hardey, 2014). Old age and the digital divide also contributed to the low rate of e-participation adoption in the Scottish local community authorities (Whyte et al., 2006) and in selected cities around the world (United Nations, 2020).

As touched in the first paragraph of this section, various scholars and institutions have measured e-participation adoption at the local level. The University of Georgia began to conduct worldwide digital municipality longitudinal studies in 2005, while the UN from 2018 was a pilot. The studies have not included all councils worldwide for various reasons. The criterion to include municipalities in the e-participation surveys conducted by the United Nations and the National Centre for Public Performance is a city population size (Holzer & Manoharan, 2016; United Nations, 2018, 2020, 2022). The sample size for the National Centre for Public Performance surveys is 100 cities (Holzer & Manoharan, 2016; United Nations, 2020), but for the UN, in 2018 was 40 (United Nations, 2018), in 2020 was 100 (United Nations, 2020), and in 2022 193 cities (United Nations, 2022).

The selection of cities in those studies has two stages (Holzer & Manoharan, 2016; United Nations, 2018, 2020), but previously the difference was in the first stage, and sometimes the UN had three stages if the second one was not applicable (United Nations, 2018, 2020). For the National Centre for Public Performance's survey, the initial stage is to choose the 100 most wired nations, and then the largest city from each nation is selected (Holzer & Manoharan, 2016). For the UN, the regions were selected relative to the world population, then the largest cities were chosen from each region and one from each nation. If this stage does not apply, the countries' GDPs or e-government ranking is used (United Nations, 2018, 2020). From Tanzania, only Dar es Salaam city was included only in the UN's survey from the second UN pilot study.

The analysis of the United Nations survey showed that Dar es Salaam city scored 21%, ranked 66th, and was in the low group (United Nations, 2020). The index called local online service (LOSI) comprises technology, service, content, and participation and engagement (United Nations, 2020). As scores for each element of LOSI were not revealed, the performance of Dar es Salaam city in those aspects, especially content and citizen engagement was not clear (United Nations, 2020).

While the results of the United Nations surveys do not provide a comprehensive account of the adoption of e-participation in Local Governments in Tanzania, there are no other Local Government e-participation adoption studies conducted in Tanzania. This study is motivated by these gaps in knowledge.

2.3 THEORETICAL AND CONCEPTUAL FRAMEWORK

This section covers the selected theory, conceptualisation, and conceptual definitions.

2.3.1 Theoretical framework

Rogers propagated the diffusion of innovation (DOI) theory to explain the process, magnitude, and factors influencing the diffusion and adoption of agricultural innovation to help change agents understand innovation diffusion (Rogers, 2003; Rogers & Shoemaker, 1971). With time, other disciplines like political science, marketing, and health started to use DOI (Rogers, 2003). Innovation is an idea, practice, or object, which is perceived as new and beneficial to a person or organisation (Rogers, 2003). The main assumption is that innovation features, communication, individual people and organisation features, and social systems influence the adoption of innovation (Rogers, 2003). Another main assumption is that innovation-decision is a process with five stages (see Tables 3 and 4).

The innovation features are relative advantage, compatibility, complexity, trialability, observability, clustering, interactivity, and modification (Rogers, 2003). However, some innovations cannot be observed, tried, clustered, or modified, and some are also not interactive (Rogers, 2003). Communication comprises mass and interpersonal media and channels. Mass communication has a large effect on innovation awareness, while interpersonal communication enhances innovation adoption (Rogers, 2003). Innovativeness describes different people's and organisation's characteristics, which influence the adoption or rejection of the innovation (see Tables 1 and 2). Further, social network effects – turbocharger (Mohammed, 2001 as cited in Rogers, 2003) and supercharger (Massanja, 2018) can also influence the adoption or rejection of innovation (Rogers, 2003). The turbocharger means information on innovation takes time to spread in the network and decision delays because the innovation is not a requirement of the network (Mohammed, 2001 as cited in Rogers, 2003). In contrast, a supercharger means the information in the network spreads quickly and decision takes place instantly because the innovation is a network condition (Massanja, 2018). In other words, all members of the network should adopt the innovation, and after quitting membership, they may discontinue it immediately (Massanja, 2018).

The theory also explains the individual adoption rate and stages. The adoption rate is related to the ratio of adopters in the population (Rogers, 2003), while the stages are innovators, early adopters, early majority, late majority, and laggards (Rogers, 2003; Rogers & Shoemaker, 1971). The innovativeness takes the shape of s-curve and normal distribution (Rogers, 2003).

Table 1. Five Categories of Adopters with their Characteristics

Category	Characteristics
Innovators	Audacious, more cosmopolite, knowledgeable, daring, rash, well-off, risk-takers, gatekeepers, norm violators, and less respected.
Early adopters	Esteemed, localities, prudent, and high opinion leaders, approval/ disapproval providers.
Early Majority	Deliberate and interpersonal communication network nodes.
Late majority	Doubtful, less well-off, and limited resources.
Laggards	Traditional, most Localities, least well-off, and isolated from networks.

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Source: Rogers and Shoemaker (1971)

Table 2. Eight Features of Organisation Innovativeness

Category	Feature	Brief description	Acceptance	Rejection
Leader's feature	Positive attitude toward change	Innovative features of the leader	Yes	no
Internal features	Centralisation	Power and control concentrated on a few	No	Yes
	Complexity	Staff's knowledge and expertise is high	Yes	No
	Formalisation	Emphasis on rules and procedures	No	Yes
	Interconnectedness	Units are linked to interpersonal networks	Yes	No
	Resources	Sufficient money	Yes	No
	Size	Big	Yes	No
External feature	System openness	Staff are linked to other experts outside of an organisation	Yes	no

Source: Adapted from "Diffusion of Innovations" by Everett M. Rogers, 2003, p. 437

Innovation-decision is the adoption process for individual people and organisations. The process stages for individual people are awareness-knowledge, persuasion, decision, implementation, and confirmation (see Table 3). As Table 4 shows, the process for organisation comprises agenda-setting, matching, decision, re-defining or re-structuring, clarifying, and routinising. The system is about structure, norms, decisions, culture, influencers, and champions (Rogers, 2003). Further, as Table 5 depicts, there are three innovation decisions, which can be combined or made in sequence.

Table 3. Innovation-decision Process for Individual People

Stage	Brief description
Awareness-knowledge	Getting information about the innovation
Persuasion	Forming the attitude toward innovation
Decision	Accepting or rejecting it
Implementation	Using the innovation
confirmation	Cementing the innovation-decision

Source: Adopted from "Diffusion of Innovations," by Everett M. Rogers, 2003, p. 437; and from "Communication of Innovations: a Cross-cultural Approach," by Everett M. Rogers and Floyd F. Shoemaker, 1971

Table 4. Innovation-decision Process for Organisation

Stage	Brief description
Agenda-setting	Defining a problem
Matching	Fitting the innovation
Decision	Accepting or rejecting
Re-designing/-structuring	Modifying the innovation or system to use it
Clarifying	Using it across all the organisation units
Routinising	Mainstreaming the innovation in the regular activities

Source: Rogers (2003)

Table 5. Similarities and Differences of Innovation-decisions

Aspect	Innovation-decision		
	Optional	Authority	Collective
Speed	Fast	Fast	Slow
Sustenance	Enduring	Less enduring	Enduring
Implementers	Decision-maker	Non-decision-makers	Decision-makers
Implementation enforcement	No surveillance	Surveillance	No surveillance

Source: Rogers (2003); Rogers and Shoemaker (1971)

In summary, DOI theory has improved and underpins research in other disciplines like medicine, marketing, and political science (Rogers, 2003). It was selected to guide this research because previous studies of e-participation adoption used some of its main concepts and e-participation is an innovation.

2.3.2 Conceptual framework

Different scholars and institutions consider e-participation as an innovation and attempt to define and measure it. For example, according to the United Nations (2020, 2022), e-participation relates to the government's practice of informing, interacting with, and involving stakeholders, including individual citizens in policy-orientated decision-making processes. As Table 6 depicts, e-participation comprises e-information, e-consultation, and e-decision-making. These stages are interdependent, but the adoption begins with e-information (United Nations, 2016).

Table 6. Key Dimensions of E-participation

Aspects of e-participation	Definition		
e-information	Provision of information on the Internet	Governments provide people with information via ICT channels for them to make informed choices for the next stage of e-participation - consultation	enabling participation by providing citizens with public information and access to information without or upon demand
Aspects of e-participation	Definition		
e-consultation	Organising public consultations online	Government consults people on a particular policy, service, or project without an obligation to use such contributions	engaging citizens in contribution to and deliberation on public policies and services
e-decision-making	Involving citizens directly in decision processes	A process in which people provide their inputs into decision-making processes	empowering citizens through the collaborative design of policy options and joint production of service components and delivery modalities

Source: UN (2016, pp. 54, 141)

United Nations (2016, 2018) also suggests e-participation indicators to measure the adoption of the practice at the Local Government level (see Appendix 1).

Whyte et al. (2006) define it as an online managed interaction between councils and the public to facilitate informed decisions about public affairs. The interaction is characterised by a flow of information and engagement (see Table 7 and Box 1)

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Table 7. E-community Council Tools and Activities

Community councillor/ admin tool	Public response and dialogue
- Publish an item on a topic of current interest, - Make 'private' comments to other councillors, e.g., on draft minutes, - Publish a document for comment, e.g., minutes, consultations, - Draft a response to a published consultation, - Check/ approve items or comments added by the public, - Use the topic to categorise items, - Set up a questionnaire, - Edit the events and meetings diary and contact information.	- Read news items about the issues and projects the Community Council is working on, - Download the attached documents, - Comment on any item shown, - Respond to consultations from the local Council and other bodies, - Write an item for the home page, and submit it for approval, - Answer questionnaires and polls, - Find dates of forthcoming minutes and events, - Find contact details for local organisations.

Source: Adopted from "An e-democracy model for communities: Final report of the e-community council project," by A. Whyte, A. Macintosh, and D. Shell, 2006, p. 8

Box 1. An Outline of Online Community Council- Community Engagement

Community council

- Facilitate consultations, planning applications,
- Survey opinion on community issues,
- Publicise/ inform events

Community

- Participate in events,
- Respond to consultations, planning applications,
- Raise community issues

Source: Adapted from "An e-Democracy Model for Communities: Final Report of the e-Community Council Project," by A. Whyte, A. Macintosh, and D. Shell, 2006, p. 39

Holzer and Manoharan (2016) define it as the Internet-based interaction and engagement between the government and citizens in decision-making processes. Also, Holzer and Manoharan provide features of information and engagement, which are used to measure the Local Government e-participation adoption (see Appendices 2 and 3).

All definitions of e-participation boil down to constant provision and access to government information, interaction, consultation, and the use of citizens' views in decision-making processes. All these three aspects take place on the Local Government's website and social media pages.

2.3.2.1 Conceptual Definitions

The main concepts in this research are e-participation, the Internet, and adoption. E-participation means the continuous internet-based provision and access to information; interaction, including consultation between councils and citizens; and councils' consideration of online citizens' views in decision-making and implementation. The Internet means all online computer applications such as a website, e-polls, online surveys, and social media, which can be viewed and used by the public. WhatsApp is excluded from online interaction features because it is a modern Short Message Service (SMS), also known as a text messaging service though it uses the Internet to communicate (MarketLine, 2014; Sanchez-Moya & Cruz-Moya, 2015). Likewise, it excludes people who have smartphones but have not joined a group and those who do not possess smartphones (MarketLine, 2014; Sanchez-Moya & Cruz-Moya, 2015).

Information means by-laws, plans, budgets, reports, calendars, notices, projects, programmes, frequently asked questions (FAQs), and news, while interaction stands for internet postings and reactions between councils and citizens, and among citizens. Consultation means councils seeking and receiving opinions on different topics from citizens via the Internet. Councils' consideration of online citizens' views means using solicited and unsolicited views in decisions and giving feedback about their use. Adoption means practising internet-based citizen engagement.

Based on the conceptual definitions, four specific research questions were formulated. The questions have been included in the introduction chapter.

3 RESEARCH METHODOLOGY

Quantitative and qualitative methodologies were used concurrently to collect data from various sources and analyse them to answer specific research questions comprehensively.

3.1 DATA SOURCE, POPULATION, SAMPLING, AND SAMPLE SIZE

The data were collected from Council Directors, Chief Information Officers (also known as, Communications Officers or Public Relations Officers), Mayors, Mtaa's chairpersons, Director for Local Government (Governance), e-Government Authority (eGA) Director General, citizens, Council web sites and social media pages (see Table 8). However, Makangira Mtaa chairperson, Kinondoni Council Director, eGA Director General, and Director for Local Government – Governance asked their immediate reports to participate in the interviews on their behalf. The populations of Council Directors, Chief Information Officers, Mayors, and Mtaa's chairpersons were 184, 184, 184, and 4,263 respectively (Jamhuri ya Muungano wa Tanzania [United Republic of Tanzania], 2018). The population of citizens aged above 17 years was 28.6 million (United Republic of Tanzania, 2018).

Except for the Director of Local Government – Governance and eGA Director General, the selection of data sources involved at least two stages. Dar es Salaam and Mwanza cities were chosen purposively because Dar es Salaam is the first and the biggest city, while Mwanza is the second and bigger than other cities. Another criterion was a high diffusion of the Internet. It was high in Dar es Salaam city and Mwanza city. In Dar es Salaam, Kinondoni Municipal Council was selected because it had the largest general population, while in Mwanza, Ilemela wa the only Municipal Council. From each council, two wards were selected and again from each ward, two Mitaa were chosen using a simple random sampling technique (see Table 9). From each Mtaa, one ruling political party cell was selected randomly from the list of cells, and then 10 households were selected using a simple random sampling technique. Five men and five women aged above 17 years were chosen from those households to balance gender using a simple random sampling technique.

Table 8. Summary of Population, Sampling, and Sample Size

Data source	Label	Sampling technique	Response rate/ sample size	Research method
Council website	A	Purposive selection approach	4	Content analysis
Council's social media page	B	Purposive selection approach	5	Content analysis
Council mayor	C	Purposive selection approach	2	Interview
Council director	D	Purposive selection approach	3	Interview

Data source	Label	Sampling technique	Response rate/ sample size	Research method
Council information and communication officer	F	Purposive selection approach	4	Interview
Mtaa chairperson	G	Purposive selection approach	16	Interview
Citizen	H	Stratified sampling approach	160	Survey
Director, Local Government/ Assistant Director, Local Government (Governance)	I	Purposive selection approach	1	Interview
E-Government Authority (eGA) Director General	J	Purposive selection approach	1	Interview

Table 9. Summary of Selected Study Areas

Region	Council	Ward	Mtaa
Dar es Salaam	Dar es Salaam City Council	Kivukoni	Kivukoni
			Sea View
		Pugu	Mustafa
			Kigogo Fresh B
	Kinondoni Municipal Council	Makongo	Mlalakuwa
			Makongo Juu
		Msasani	Makangira
			Bonde la Mpunga
Mwanza	Mwanza City Council	Mahina	Bugarika
			Nyangulugulu
		Mhandu	Isegeng'he B Shigunga
	Ilemela Municipal Council	Ilemela	Mwambani Sabasaba
		Nyamanoro	Mkudi Kilima Hewa B

3.2 METHODS

As Table 8 shows, three research methods were used to obtain data. First, content analysis was used to get data from council websites and social media pages (see Appendix 4, 5, and 6). Second, a questionnaire survey was employed to collect data from citizens (see Appendix 8). Finally, a semi-structured interview was used to obtain data from Council Directors, Chief Information Officers, Mayors, Mtaa chairpersons, Director for Local Government – Governance, and eGA Director General (see Appendix 7). Generally, most measures that were included in the instruments were borrowed from Massanja (2018).

The questionnaire was administered by researchers with the help of KoboToolbox, which is a free online data collection platform. It was also used to collect data from councils' websites and social media pages, and interview participants' demographic information. The data were collected between October 2021 and November 2021.

The collected data were cleaned and analysed using quantitative and qualitative techniques. The quantitative analysis comprised count and proportion, measures of central tendency, dispersion, and crosstabulation. For the quantitative content analysis, the sophistication index (SI) was used to measure the magnitude of information and interaction tools availability. SI is a set of units of analysis, selected variables to observe, and values that are one and zero (Bonson et al., 2012; Holzer & Manoharan, 2016). Whereby, one stands for available, while zero for unavailable (Bonson et al., 2012; Holzer & Manoharan, 2016). The minimum score is zero, and the maximum is the total number of cases, in this case, councils. SI was also used to determine the amount of information for each council (Bonson et al., 2012; Holzer & Manoharan, 2016). Information timeliness was not considered in the content analysis because of limited research time, but it was included in the semi-structured interview.

The qualitative analysis was conducted using coding. Coding is the process of organising qualitative data into topics, themes, and concepts (Bryman, 2012; Creswell, 2014; Sandelowski & Barroso, 2007). The selected quotations were used to validate the qualitative analysis. Computer applications like Software Packages for Social Science (SPSS), NVivo, and Excel were used to analyse the data with more accuracy.

3.3 ETHICS

Research ethics and legal rights were followed to minimize any harm to respondents and researchers. Research clearance number 2021-507-NA-2021-190 was granted by the Tanzania Commission for Science and Technology (COSTECH). All respondents provided informed consent and participated without any coercion. For instance, some respondents skipped some questions and refused to be audio recorded without giving any reason. Privacy, confidentiality, anonymity, and gender balance for randomly selected sources were ensured. For example, the use of square brackets in quotations conceals the name of a council. Research assistants were trained, and the pilot was conducted in Ubungo Municipal Council in Dar es Salaam to improve data quality and validity. The principal investigator constantly monitored and examined the online data submissions.

4 RESULTS

As reported in the methodology chapter, three research methods – content analysis, survey, and semi-structured interview were used to collect data. The semi-structured interview results reinforce the results of the other two research methods.

4.1 SAMPLE CHARACTERISATION

The survey respondents and semi-structured interview participants had distinctive features like gender and education. The gender representation of citizen respondents was 50 per cent each, while more than half fell in the 36-53 age group. Almost a quarter had a monthly income of less than Tanzanian Shillings (TZS) 65,000/=, while, more than half had an income above TZS 150,000/=. Most respondents have primary education, while two out of ten reached a tertiary education level. Specifically, two-thirds of respondents with tertiary education were from wards in Dar es Salaam city and Kinondoni municipal councils. Also, three-quarters of respondents (73%) were self-employed. Finally, the majority of respondents were interested in public affairs, especially at the Lower Local Government (LLG) level.

Other features of survey respondents were political interest and internet adoption. In this research, political interest is measured by three variables namely: discussing politics with family members and neighbours, attending Local Government Mtaa meetings, and meeting with LLG leaders. The results showed that half of the respondents discussed Mitaa's issues occasionally, one-third always did it, and one in five never did it. The majority of respondents attended Mitaa's meetings, but in varying degrees; for example, one in five did it twice a year, while one in ten did it four times annually (see Table 10). Similarly, two-thirds of respondents met with their Local Government leaders, but in different magnitude. For instance, one in four did it more than four times a year, about one in five did it once, while a handful of them did it four times (see again Table 10).

Table 10. Respondents' Degree of Attending Mtaa's Meetings and Meeting With Local Leaders

Frequency annually	Meeting with local government leaders (%)	Attending Mtaa's meetings (%)
Never	34	24
Once	18	19
Twice	9	20
Three times	9	16
Four times	4	12
More than four times	26	9

Source: Fieldwork data, 2021

Concerning ICT use, the analysis showed that about one in five respondents (21%) used the Internet on various devices such as a personal computer, laptop, and smartphone. A simple majority used smartphones, one in five used a personal computer, and another one in five used laptops to access the Internet. The tablets/ iPads (9%), smart televisions (8%), and smartwatches (6%) were the least used by respondents to access the internet. Some respondents (28%) used more than one device; for example, one in ten respondents used two devices.

About the semi-structured interview, the analysis showed that both mayoral participants were men whose mean age was 57.5 years. One participant was aged 52 years, while another one was 63 years old. Also, the older participant attained an advanced level of secondary education, while the younger one had a diploma. One participant served in the mayoral position for six years, while the other one did it for two years. Before such a position, they worked with the Local Government in different capacities: one did it for 10 years and another for 27 years. One participant used the Internet daily and subscribed to Facebook, Twitter (now known as X), and Instagram, while the other used the Internet rarely and did not subscribe to any social media.

Regarding council directors, two participants were men, while one was a woman. Of these, one was a Council Director, and two were Acting Council Directors. Both men participants were aged above 50 years, while the woman was 38 years old. All participants were educated at the Master's level. On average, they had worked with the Local Government for 14 years. The maximum number of years serving the Local Government was twenty-one, and the minimum was six. All participants used the Internet daily for work. Moreover, two used it for non-work daily, while one did it a few times a week. Also, one subscribed to Facebook and X, another one had Facebook and Instagram pages, while the other one did not subscribe to any.

Of the council communication officer participants, 50% were men, while on average, their age was 41 years. One woman aged 50, while another was 35 years old. All men aged between 35 and 50 years. Many participants (75%) graduated with a Master's degree, while a quarter (25%) had a Bachelor's degree. Of those who attained a Master's degree, two-thirds were women. In other words, all women had a Master's degree, while only one man held it. On average, they worked in their positions for six years. The maximum was nine, while the minimum time was four years. Similarly, on average, they worked with the government for 13 years. The maximum was twenty years, while the minimum time was nine years. All women participants worked in this position for about six years, while one man did it for four years and the other one for nine years. Again, all women worked with the government longer than men. All these participants used the Internet every day for work and non-work purposes, and they had at least one social media page. All of them subscribed to Instagram, two on Facebook and X.

All participants in the capacity of Mtaa chairperson were men (94%). The mean age of participants was 47 years. The maximum was 73, while the minimum age was 30 years.

One-fifth of participants were youth, a simple majority were middle-aged, while a quarter of them were above the middle age group. The only woman participant was above 54 years old. One-third of participants were educated above diplomas, and a quarter of them were primary leavers. Also, another quarter of participants studied up to secondary school and one-tenth had a college certificate. The woman participant attained a diploma. On average, all participants held their positions for four years and served in the government for eight years. On ICT, about two-thirds (63%) subscribed to at least one social media like Facebook and X. A half of them never used the Internet at work, about two-fifths (38%) did it every day, and one in ten did it rarely in a month. For non-work, a simple majority (56%) did it every day, a handful of them (6%) a few times a month, and close to two-fifths (38%) never.

There was only one female participant from the PO-RALG. She was around 50 years old and had a Master's degree. She served in the government for seventeen years and in her position for seven years. She was using the Internet for work and non-work, but she did not subscribe to any social media since according to her, she was too old to do it. However, she was using Instagram through her children's accounts.

Finally, from the e-Government Authority (eGA), the participant was a 37-year-old male. He had a PhD and served in his position for three years, and worked with the government for eleven years. He also used the Internet every day for work and non-work and had pages on LinkedIn and Instagram but dropped his Instagram page because it involved managing many accounts.

4.2 PROVISION OF COUNCIL INFORMATION VIA COUNCIL WEBSITES AND SOCIAL MEDIA PAGES

The provision of information via the council websites and social media pages is one of the three important aspects of e-participation. The content analysis showed that all councils published information such as reports, budgets, statistics, and projects on their websites and social media pages in varying degrees. For example, as Table 11 depicts, the most available information categories were budgets, implementation reports, news, projects, statistics, and other notices. Other information categories such as frequently asked questions, by-laws, municipal profiles, and procurement announcements to a higher degree were also available, while to some extent strategic plans were available. To a lesser extent, procurement results, programmes, and calendars were made available. The annual plans or plans were not available on any of the councils' websites and social media pages. The semi-structured interview results also revealed that councils provided such information categories, but in addition to that, there were development programmes, policies, events, procurement announcements, and investment opportunities. Other information categories were processes, procedures, guidelines, contact details, leaders' profiles, council profiles, and job adverts.

> "The council website has information on construction, business, processes and procedures, development programmes, daily events, contact details, leaders' profiles, and budget summaries." (Participant F1)

Across councils, Kinondoni Municipal Council provided more information via their internet applications than other councils did, but Ilemela Municipal Council gave less information on their websites and social media pages (see Table 12). Dar es Salaam and Mwanza City Councils provided the amount of information which was close to Kinondoni Municipal Council (see again Table 12). Moreover, the content analysis revealed that there were no web pages for Wards on the websites of the two councils. The information which was on Ward's web pages was only about their profiles. Finally, the websites of all councils did not have Mitaa's web pages.

The content analysis results further showed that the information was in hyper-text mark-up language (HTML) and non-hyper-text mark-up language (non-HTML), and on average these formats were used equally. The non-HTML format is downloadable. Two-thirds of the information on the Kinondoni Municipal Council website was downloadable, while two-thirds on the Ilemela Municipal Council website was non-downloadable.

Table 11. Amount of Information on Councils' Websites

Information item	No. of councils
Frequently Asked Questions (FAQs)	3
News	4
Implementation report	4
Budget	4
Strategic Plan	2
Procurement results	1
By-laws	3
Statistics	4
Programme	1
Calendar	1
Other notices	40
Project	40
Municipal profile	3
Annual/ work plan	0

Source: Fieldwork data, 2021

Table 12. Scores of Councils' Information Provision via their Websites

Local Government Authority	%
Dar es Salaam City Council	73
Ilemela Municipal Council	40
Kinondoni Municipal Council	87
Mwanza City Council	73

Source: Fieldwork data, 2021

The qualitative content analysis also revealed that councils used their social media pages to direct visitors to their websites to access, for example, full reports, as one of the social media posts read:

> "#Transparency and responsibility, follow the link below to get information on income and expenditure ending in October 2021, also to get other information, visit the website https://ww-w.[council name]mc.go.tz." (Council)

In addition to routing users to their websites, the semi-structured interview results further showed that the councils used their social media pages to broadcast the council's meeting deliberations live. They also shared major events like project launching, and new government building inaugurations, and posted announcements. However, some councils did not utilise their social media pages efficiently as they had little and outdated information. It was further revealed that councils used their social media pages to supplement their websites as one participant said:

> "Our community engages more through social media pages rather than the website. Therefore, in case we post anything on our website; we share the same on our social media pages. Specifically, everything we share through our website, especially on current events and news can also be found on our social media pages." (Participant F4)

However, all councils hardly provided specific information about Wards and Mitaa on their websites and social media pages as some semi-structured interview participants put it:

> "We are yet to link our webpage to wards. We are planning to do that in the future. We believe it will help to get feedback and share news and announcements with people from different wards." (Participant F4)

> "The only thing I know is when the municipal council needs to inform citizens, they tell Ward leaders, and then at the ward level, they inform us. We then organize means to reach citizens. We use microphones and speakers to pass the information on to citizens. They mostly do that when there is a directive." (Participant G6)

> "We do not use the information from the website because it is too general, …. The information which we're given through letters are the ones which are specific in our street, and we deliver to our people." (Participant G4)

The semi-structured interview results further revealed that some information on some councils' websites was not accurate because of poor coordination between the communication units and other departments. Also, some information was not updated regularly because some members of the communication staff did not honour their terms of reference. In the context of the interview, a participant said:

> "We have the website, but I admit that the information which is on the website is not up to date. The responsible staff are not doing their job; that is, they do not update it daily." (Participant C2)

From a different perspective, the semi-structured interview results showed that the Central and Local Governments have already routinised the provision of online information as the participant put it:

> "According to the e-government framework called maturity stages, Tanzania has reached a good stage. The stages are first, the provision of information, second, e-services, that is, response, and third, transaction." (Participant J)

There were reasons for the degree of provision of information on councils' websites and social media pages as the content analysis and some semi-structured interview results revealed above. The semi-structured interview results revealed such reasons related to the provision of information on the websites and social media pages of the councils. First, the councils did not have enough communication staff members to serve all Wards and Mitaa and manage the council's social media pages properly. Second, some Mitaa leaders were not aware of whether they could share information with citizens via the councils' websites and social media pages. Third, some Mitaa offices did not have good internet connectivity, some did not have internet connection, and some did not have electricity. Similarly, some councils sometimes experienced poor internet connection, which prevented them from uploading information.

> "We don't use the Council's internet to reach the citizens in our Mtaa because we don't have access to the internet and majority of our citizens have no access to the internet." (Participant G7)

> "After all, we do not have access to it, we neither have electricity here nor computers that can be used to operate such a thing. As you can see, I have no office tools that I can use to access the website." (Participant G5)

> "Unreliable internet connection which affects the speed on the internet. Thus, at times it takes longer to upload pictures and videos." (Participant F2)

Finally, some Mitaa elected political leaders who did not have the ICT skills to post Mitaa information on council websites and use social media channels.

There were two other reasons related to the provision of information on councils' websites only as follows. One, when the Fifth Government Phase ended, the frequency of updating council websites dropped as the participant reported:

> "During Magufuli's reign, they were posted frequently, but now, it is not. For instance, if you visit, the last post is about ward councillors' committee and the mayor announcement." (Participant G4)

Two, some members of the council staff did not follow the government requirements to manage Government websites. It was further discovered that such requirements increased the provision of information on councils' websites when they were implemented properly.

Likewise, the reasons for the poor provision of information via council social media pages were: first, despite the shortage of council communication staff, they were not working hard.

> "The event information comes out after two days because members of staff are fewer than required, they live far from the office, for instance, [place name], and they are lazy." (Participant C2)

Also, the Government limited access to the social media pages through the government ICT network to ensure national security because it did not own them.

> "They have limited access to social media when you are browsing through Government internet networks. Therefore, I have to use my internet connection to post news on the council's social media channels." (Participant F2)

4.3 CITIZENS' ACCESS TO INFORMATION ON COUNCILS' WEBSITES AND SOCIAL MEDIA PAGES

As previously discovered, except for the Lower Local Government level, the councils provided the information via their websites and social media pages for citizens and other stakeholders to access. The survey data analysis showed that a few respondents visited councils' websites and social media pages to obtain such information (see Table 13). However, on average, one-third of respondents used more than one means to get information from the councils. Also, on average, a quarter of respondents used a combination of online and physical access to get councils' information. On the purpose of accessing such information, a few respondents (20%) used it to monitor councils' performance. Similarly, the semi-structured interview results showed that a few people obtained the information through councils' websites and social media pages.

Table 13. Means Used by Citizens to Get Information from Councils Annually

Frequency	Means (%)			
	Social media page	Website	Physical building	Other
None	88	93	64	48
Once	5	4	11	12
Twice	2	1	9	19
Three times	0	1	3	9
Four times	1	0	4	3
More than four times	4	2	8	10

Source: Fieldwork data, 2021

There were several reasons for a few respondents to access the information via councils' websites and social media pages. The interview results revealed such reasons as follows. First, many people were not aware of the provision of information through councils' websites and social media pages as the councils did not promote it. Second, some people did not have enough funds to purchase ICT devices and internet bundles. Also, some people were internet illiterate. Additionally, many citizens did not attain post-primary education. Again, some citizens did not have a culture of reading public affairs information. Moreover, some citizens lived in areas where there was poor internet connectivity. Furthermore, the information was mainly in the textual format rather than in video and picture format; that is, infographic. Similarly, the linking of websites and social media pages influenced the adoption. Also, some relevant information was missing on councils' websites. Finally, the councils' websites were not updated regularly.

> "I am not aware of the council's website. I believe the same for most citizens in the wards. Raising awareness may be paramount for the council to realize the fullest potential of the digital media - internet and social media." (Participant C3)

> "We are sharing different news through our websites, however, most of our citizens are not aware of the existence of websites due to the limitation of internet penetration, limited access to smartphones, and low education levels …. There is a need for research to understand the website utilization rate and challenges that hinder the utilization." (Participant D3)

4.4 INTERACTION AND CONSULTATION BETWEEN COUNCILS AND CITIZENS ON COUNCILS' INTERNET APPLICATIONS

Councils adopted different online interactive features, especially social media to interact with citizens and other stakeholders. As Table 14 shows, none of the councils adopted consultation and decision-making tools such as petitions and referendums.

Table 14. Presence of Interaction, Consultation, and Decision-Making Tools on Councils' Websites

Interaction/ consultation/ decision-making tool	No. of councils
Non-social media	
Complaints/ feedback form/ submission form	4
Forum	0
Petition	0
Poll	0
Referendum	0
Survey	0
social media	
Blog	1
Facebook page	4
Instagram account	2
Twitter account	2
YouTube channel	2

Source: Fieldwork data, 2021

The content analysis results further showed that councils used their social media pages to interact with citizens and other Local Government stakeholders. As Table 15 depicts, the councils posted the content and received reactions such as likes and views. The survey results revealed the same, but the respondents who visited them performed few activities like commenting and liking the posts. The content analysis showed further that, In 2021, in total, they received 3,406 reactions, but individually, some councils did not receive any (see Table 16).

Table 15. Rankings of Councils in Social Media Page Interactions since Sign-up

Local Government Authority	Posts	Followers	Following	Viewing	Likes	%
Dar es Salaam City Council	18	3,027	-	291	64	1
Ilemela Municipal Council	720	7,582	265	NA	344	6
Kinondoni Municipal Council	388	6,035	877	7,892	5,445	92
Mwanza City Council	3	69	-	NA	63	1
Total	1,129	16,713	1,142	8,183	5,916	100

Note. NA stands for Not Applicable.

Source: Fieldwork data, 2021

Table 16. Degree of Reactions on Councils' Social Media Pages in 2021

Local Government Authority	Facebook page	Twitter account	YouTube channel	Instagram page	Blog	Total	%
Dar es Salaam City Council	74	NA	-	NA	NA	74	2
Ilemela Municipal Council	350	2,004	NA	631	NA	2,985	88
Kinondoni Municipal Council	347	-	-	-	-	347	10
Mwanza City Council	-	NA	NA	NA	NA	-	-
Total	771	2,004	-	631	-	3,406	100

Note. NA stands for Not Applicable.

Source: Fieldwork data, 2021

The survey results further showed that a handful of respondents witnessed the councils interacting with citizens, consulting them, and providing feedback to them monthly. Likewise, the semi-structured interview results revealed that councils rarely consulted with citizens via their websites and social media pages.

The reasons for the limited online citizen consultation were as follows. First, some people, including youth who used the internet were not interested in public affairs. Second, some citizens could not afford internet access and ICT devices. Next, in some places in those councils, there was no internet connectivity. Also, citizens were not aware of the internet and social media platforms. Moreover, some councils did not have a member of staff assigned the role of managing councils' social media pages. Similarly, Mitaa did not have social media pages and Mtaa elected leaders did not have access to councils' social media pages. Also, all councils did not adopt the government-owned consultation feature for the survey whose website address is http://e.dodoso.gov.go.tz as the government did not promote it sufficiently. Again, some councils did not match their traditional communication system to accommodate the practice of engaging citizens online. Finally, some citizens feared surveillance, especially when Mtaa elected leaders used WhatsApp to collect their views.

4.5 CONSIDERATION OF CITIZENS' ONLINE VIEWS IN DECISION-MAKING PROCESSES

Consideration of the online views of citizens is extremely critical for e-participation adoption. The survey results showed that to some degree the councils considered their online views in their decision-making processes (see Table 17). For example, the semi-structured interview results showed that in one council, the information officer organised and presented such views to the council, while another council usually reviewed them thoroughly to confirm their authenticity. Moreover, to some extent, such online views of citizens influenced the decisions the councils made.

> "We use their feedback and comments to improve service delivery in our council. Consequently, citizens' online views partly affect the decision-making processes." (Participant D1)

Likewise, at the Mtaa level, the citizens' views, which were received through WhatsApp were considered during Mtaa Government Committee meetings as the participant illustrated:

> "Normally we take into consideration views and comments received through WhatsApp groups by implementing what people have suggested, for example, people may comment on security issues and give suggestions like we should have our night security shifts to combat theft." (Participant G11)

Consideration of online views of citizens also involves giving feedback to citizens. The survey results showed that, to some extent, the councils did it, and they told them the reasons for not considering some of such online opinions in the decision-making processes (see again Table 17).

Table 17. Respondents' Opinion on Consideration of Online Views and Receiving Feedback

Category	Statement (%)		
	Online views not considered	Informed whether online views considered	Reasons for not considering online views given
Strongly agree	8	9	8
Agree	16	12	4
Neither agree nor disagree	48	39	43
Disagree	21	24	29
Strongly disagree	7	15	15

Source: Fieldwork data, 2021

4.6 SUMMARY

The analysis of the collected data revealed the magnitude, patterns, and factors influencing the adoption of e-participation at the local level. For example, the provision of information was higher at the HLG than LLG. Also, the degree of interaction between councils and citizens on councils' websites and social media pages was low. Similarly, The councils rarely consulted with citizens via their websites and social media pages. Finally, the rate of consideration of a few received online views of citizens was also low.

The factors were possession of ICT skills, ICT infrastructure, awareness, information timeliness, government norms, apathy, and many more.

5 DISCUSSION

As introduced in the first chapter, this research examines the factors influencing the adoption of e-participation at the local level in Tanzania.

5.1 RESULTS SUMMARY

The results showed that councils published information on their websites to a greater degree, while their social media pages which supplemented their websites did it to a lesser extent. Moreover, the higher degree of provision of such information was at the Higher Local Government (HLG) level, while there was almost none at the Lower level. Despite the higher degree of provision of information at the HLG level, few citizen respondents accessed it.

The interaction between councils and citizen respondents via councils' interactive features, especially social media pages was moderate, but councils hardly consulted with citizens when making decisions, for instance, during planning. However, the councils have received feedback and complaints from different people and discussed them in their meetings.

Councils that received unsolicited online views, inquiries, complaints, and feedback from citizens via their websites and social media pages, to some degree, considered them. At the lower Local Government, WhatsApp was used to get some views, which influenced Mitaa's decisions.

The reasons for the observed degree of adoption of e-participation were ICT-related like lack of ICT infrastructure in LLG offices, poor internet connectivity, and poor ICT skills, including Internet skills. Similarly, Mitaa did not have social media pages and webpages. Likewise, the traditional communication system of some councils was not compatible with e-consultation. Again, Mitaa leaders could not access councils' social media pages. There was also a lack of awareness of the practice on the side of citizens and council staff, especially at the LLG level. In relation to that, councils also did not promote the practice. Furthermore, they did not link their websites and social media pages, did not have enough communication staff, and the government restricted the use of social media. Also, they did not assign their communication staff the role of managing their social media pages. Some council communication staff poorly performed their tasks, did not follow the ICT guidelines, and feared the top administration, especially the head of state during the Fifth Government Phase. Citizens preferred infographics to text-only information format, some were apathetic, and many had low-income levels, low education levels, and poor reading culture. Finally, they did not get timely information and relevant information for their Mitaa.

5.2 RESULTS INTERPRETATION

The results suggest that the degree of adoption of e-participation at the Local Government level is still low. The provision of information via councils' websites appears to be high, but most information was hardly relevant for the Lower Local Government level. Similarly, although the councils interacted with citizens through the councils' third-party social media pages, they did not consult with citizens. However, some citizens submitted unsolicited views to councils, but most of them were complaints and inquiries. Of the four councils, three answered citizens' inquiries and dealt with their complaints, but this phenomenon is part of the service.

One Mtaa used WhatsApp to consult with citizens, but the application was not included in the operational definition of Internet applications because it is not appropriate as it excludes those who have not joined a group and those without smartphones (MarketLine, 2014; Sanchez-Moya & Cruz-Moya, 2015). Moreover, WhatsApp is a modern Short Message Service (SMS) rather than a social media (MarketLine, 2014; Sanchez-Moya & Cruz-Moya, 2015).

The findings also reveal different reasons for councils, councils' staff, and citizens for such a degree of adoption of e-participation at the local level. To a considerable extent, all the reasons for such a low degree of e-participation adoption at that level boil down to the lack of political will in this domain of life. With a firm political will funds could be mobilised to accelerate the adoption of e-participation, as United Nations (2022) discovered that affluent city councils had a high rate of e-participation adoption. Similarly, in line with the findings of United Nations (2022) and Whyte et al. (2006), internet skills influence the adoption of e-participation. The awareness of e-participation also plays a great role in adopting the practice (Holzer & Manoharan, 2016; Whyte et al., 2006).

This study has some limitations which might have influenced the results. For example, the data about the availability of information, which were collected using the content analysis, did not include the aspect of currency. However, to a lesser extent, the qualitative data addressed that issue. In a similar vein, there was no scale of magnitude of interactions on councils' social media pages because, in the literature, there is no principle to determine it. Because the sample of councils was selected purposively, the results are not generalised to the population of all 184 councils in Tanzania. Likewise, the findings are not generalised across time because ICT continues to advance rapidly.

5.3 IMPLICATIONS FOR THEORY, AND PRACTICE

The Diffusion of Innovation theory guided this research successfully. For example. It has demonstrated that features of e-participation influenced the adoption of that practice. Innovativeness also explained the adoption of e-participation, for instance, interaction on the social media pages of councils was inter-dependent.

In practice, e-participation adoption will increase when the ICT environment in the country is improved and becomes friendly. For example, the strengthening of ICT infrastructure nationwide and within the government up to the local level will enable the adoption of e-participation. Also, making the prices for ICT devices and the Internet affordable will enhance the adoption of this practice. Similarly, when all government officials, especially at the local level and citizens become aware of e-participation, the adoption of this practice will increase.

The readiness of the government to adopt e-participation, especially at the local level will also increase the pace of the adoption. Likewise, the government should be greatly responsive to encourage citizens to participate in decision-making processes physically and virtually.
This research makes two contributions to knowledge as follows. First, despite its limitations, it provides comprehensive knowledge about e-participation adoption at the local level in Tanzania because the proxy was not employed as in the UN's surveys. For example, the research shows clearly the factors related to citizens, council staff, councils, and central government though some factors cut across these categories, especially between citizens and council staff. Second, in addition to Dar es Salaam City Council, Mwanza City Council and two Municipal Councils were included in the sample.

5.4 SUMMARY

The discussion shows that e-participation adoption at the local level in Tanzania is at its initial stages due to a range of factors such as national security, government standards, and awareness. The research has thrown more light on the e-participation adoption at the local level in Tanzania. However, the findings are not generalized due to the sampling approach, councils' sample size, and the continuous advancement of ICT.

6 CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a reflection of findings, knowledge contribution, a limit, areas for further research, and actions to take to enhance e-participation adoption at the local level.

6.1 CONCLUSIONS

Citizen engagement is at the core of democracy, and it is believed that the Internet accelerates citizen participation in decision-making processes. In Tanzania, the e-participation adoption at the Local Government level is not well understood because only Dar es Salaam city was included in the UN studies. Moreover, the methodological approach the UN used does not generate comprehensive knowledge to understand the phenomenon. Four research questions were formulated to give answers about e-participation adoption at the local level in Tanzania. The questions were about the provision and use of councils' online information on their internet applications, councils – citizens online interaction and consultation via interactive features, and consideration of citizens' online views.

Because the councils adopted the websites and social media pages, they provided information like news, by-laws, and reports. Notwithstanding, some councils provided outdated and inaccurate information like the mayoral public meetings programme. The reasons for these issues were poor coordination, shortage and lack of diligent communication staff, poor internet connectivity, and government norms. Others were the third-party social media policies, and low staff accountability compared to the degree of accountability in the Fifth Government Phase. At the LLG level, the provision of government online information hardly existed. The reasons were a lack of webpages and social media pages for many wards and Mitaa. Also, LLG leaders were not aware of the practice, and some also did not afford ICT costs. The lack of ICT facilities and electricity in many LLG offices also contributed to the limited adoption of e-information.

Citizens' use of the information the councils provided via their websites and social media pages was low because, first, some councils published it late; second, many citizens were not aware of the practices. Next, in some areas, there were poor internet connections; furthermore, many citizens did not have ICT devices and had a low level of formal education. Moreover, many citizens could not afford the price of the internet; also, some citizens were apathetic, while others did not have internet skills. Again, some information was not relevant; next, the councils did not promote the practice and did not update their websites regularly. Also, the websites of the councils did not have user guides. Finally, linking their websites to their social media pages, and using pictures and videos increased information usage.

Councils hardly consulted with citizens on public affairs through the Internet for several reasons. First, LLG leaders could not afford the internet when they tried to engage citizens via their ICT devices. Second, in some areas, the internet connectivity was poor. Next, many citizens and LLG leaders were not aware of online citizen consultation. Furthermore, the youth did not have an interest in public affairs despite having good internet skills. Moreover, some councils did not have social media content managers. Also, many councils did not have wards and Mitaa's social media pages. Finally, the traditional communication system could not accommodate the online citizen consultation practice.

Some councils considered the views of citizens submitted via their social media pages, but such views were not solicited by them. However, most of the submissions were complaints and inquiries.

It is further confirmed that an appropriate research methodology to understand e-participation adoption is a mixed method and triangulation of data sources. Also, in the e-participation adoption inquiry, the proxy namely the availability of e-participation tools on councils' websites is not reliable because their usage is not captured. Additionally, the United Nations surveys included only one council from Tanzania, while the sample size of this research was four councils.

In practice, the e-participation adoption pace will increase when the government improves the ICT environment nationally and in the LLG offices. Also, when LLG officers become aware of government-owned survey tools, e-participation adoption will increase.

Because of the design of this study, the findings are not generalisable, but they can be transferred to other areas with similar characteristics to those of the studied areas.

6.2 RECOMMENDATIONS

Based on the findings of this research, there are recommendations for the Central Government, Local Government, and citizens to improve e-participation adoption at the local level.

Central Government:

- To continue creating a conducive environment to increase ICT penetration and use; for example, to make all ICT-related goods and services more affordable,
- To promote government-owned online participation tools like 'e-dodoso' using various means to improve citizen engagement,
- To prepare and share widely within the government e-consultation and e-decision-making guidelines to encourage online citizen engagement to complement traditional citizen participation,

Local Government:

- To connect all LLG offices with electricity and install ICT infrastructure to improve online citizen engagement, which, as pointed out above, supplements traditional citizen participation rather than replacing it,
- To conduct regular ICT training programmes for Local Government officers and elected leaders to acquire necessary ICT skills,
- To open web pages on council websites for LLG (e.g., Wards and Mitaa) to provide specific information related to planning and budgeting and engage citizens effectively,
- To continue updating councils' websites more often to make information timely and relevant all the time,
- To use government-owned e-consultation features like the e-dodoso (http://e.dodoso.gov.go.tz) to engage citizens in decision-making processes like annual planning and budgeting.

Citizens:

- To acquire and improve their ICT skills, including Internet Skills through various approaches like attending formal training and self-learning.

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APPENDICES

APPENDIX 1. FEATURES TO MEASURE LOCAL GOVERNMENT E-PARTICIPATION

Category	No.	Feature
Content provision	1	Contact details
	2	Organisation structure
	3	Department head names and contacts
	4	Municipality information
	5	Budget related information
	6	Procurement notices
	7	Procurement results
	8	Provided services information
	9	Municipality partnership with third parties information
	10	Free internet facilitation
	11	Health information
	12	Environmental information
	13	Education information
	14	Social welfare information
	15	Sports and culture information
	16	Privacy policy
	17	Open data policy
	18	Open data provision
	19	Open government data (OGD), i.e., metadata
	20	Smart city initiatives
	21	Use of emergent technologies
	22	Online user support
	23	Online information use guidance
	24	Government agencies links
	25	Statistical data and study provision
	26	Portal content update evidence
	27	e-government/ digital government development strategy
	28	Weather information and natural disaster alerts
	29	Government information access rights information
	30	Information relevant to vulnerable groups
	31	Justice and labour issues information

Category	No.	Feature
Participation and engagement	1	Real-time communication
	2	Feedback/ complaint submission
	3	Online deliberation processes
	4	Social networking features
	5	Reporting of occurrences in public places
	6	Participatory budgeting
	7	Participatory land-use plan
	8	Upcoming e-participation activities announcements
	9	Feedback about consultation processes
	10	e-Voting
	11	Municipality Council public meetings

Source: Adapted from "United Nations E-government Survey 2018: Gearing e-government to support transformation towards sustainable and resilient societies," by United Nations, 2018, p. 156

APPENDIX 2. CONTENT FEATURES

No.	Feature
1	Access to more than one language
2	Budget information
3	City charter and policy priority
4	City code and regulations
5	Contacts
6	Disability access
7	Downloadable documents
8	Emergency management/ alert mechanisms
9	Event Calendar
10	External links
11	Geographic Information System (GIS) capabilities
12	Human resources information
13	Minutes
14	Mission statements
15	Office location
16	Publications (documents, reports, books)
17	Wireless technology

Source: Adopted from "Digital Governance in Municipalities Worldwide," M. Holzer and A. Manoharan, 2016, p. 83

APPENDIX 3. MEASURES OF CITIZEN AND SOCIAL ENGAGEMENT

No.	Measure
1	Citizen satisfaction survey
2	Comments/ feedback
3	Newsletter
4	Online bulletin board/ chat capabilities
5	Online decision-making
6	Online discussion forum on policy issues
7	Online surveys/ polls
8	Performance standards, measures, or benchmark
9	Scheduled e - meetings for discussion
10	Synchronous video

Source: Adopted from "Digital Governance in Municipalities Worldwide," M. Holzer and A. Manoharan,2016,p.8 4

APPENDIX 4. AVAILABILITY OF INFORMATION ON COUNCIL WEBSITES OBSERVATION SCHEDULE

Council's name	Website address	Date	Variable (information)	Score (0/1)	Information presentation (HTML/ Non-HTML)	Number of downloadable/ accessible publications/ items	Number of publications/ items inaccessible	(Uploaded) dates of accessible publications chronologically	(Uploaded) dates of inaccessible publications chronologically	Remarks
			Strategic Plan							
			Annual plan/ work plan							
			Budget							
			Project							
			Programme							
			Report (implementation/ performance)							
			Statistics							
			News							
			Procurement announcement							
			Procurement result							
			Other notices							
			By-laws							

Council's name	Website address	Date	Variable (information)	Score (0/1)	Information presentation (HTML/ Non-HTML)	Number of downloadable/ accessible publications/ items	Number of publications/ items inaccessible	(Uploaded) dates of accessible publications chronologically	(Uploaded) dates of inaccessible publications chronologically	Remarks
			Calendar							
			Frequently Asked Questions (FAQs)							
			Municipality profile							

APPENDIX 5. AVAILABILITY OF INTERACTIVE AND CONSULTATION TOOLS ON THE COUNCIL WEBSITE OBSERVATION SCHEDULE

Council's name	Website address	Date of recording	Variable (tool)	Score (0/1)
			Poll	
			Petition	
			Referendum	
			Forum	
			Survey	
			Complaints/ feedback form/ submission	
			Facebook page	
			Twitter account	
			YouTube channel	

Council's name	Website address	Date of recording	Variable (tool)	Score (0/1)
			Blog	
			Instagram account	

APPENDIX 6. ACTIVITIES ON SOCIAL MEDIA PAGES OF THE COUNCILS OBSERVATION SCHEDULES

Social media page – Facebook page activities in the past 12 months

The council's official Facebook page name

Date of opening the page

No. of followers

Total no. of posts

Total no. of likes

Post no.	Publishing date	Caption/ synopsis	No. of (pre-defined) emotional reactions, e.g., like, love, and care	No. of shares	No. of comments	Comments' narration	No. of replies	First-level reply narration	No. of (pre-defined) emotional reactions to comments and replies	Remarks
1.										
2.										
3.										
4.										

Social media page – Twitter account activities in the past 12 months

The council's Twitter account name

Date of opening the account

No. of followers

No. of following

Total no. of tweets

Total no. of likes

Tweet no.	Tweeting date (dd/mm/yyyy)	Caption/ synopsis	No. of reactions to the tweet, e.g., likes	No. of shares	No. of retweets	No. of all replies	Reply dates chronologically (dd/mm/yyyy)	No. of reactions (share, like, and retweet) to replies	Remarks
1.									
2.									
3.									
4.									
5.									

Social media page – YouTube channel activities in the past 12 months

Council's channel name

Date of opening the channel

No. of subscribers

Total no. of videos

Total no. of views

Video no.	Publishing date (chronologically)	Caption	Number of views	No. of reactions (likes, dislikes)	No. of comments	Comments' narration	No. of replies	Reply narration	Remarks
1.									
2.									
3.									
4.									
5.									

Social media page – Instagram page activities in the past 12 months

Council's Instagram page name

Date of opening the page

No. of followers

Total no. of posts

Total no. of following

Post no.	Publishing date	Caption	Number of shares	No. of likes	No. of comments	Comments' narration	No. of reactions to comments	No. of replies	Remarks
1.									
2.									
3.									
4.									
5.									

Social media page – Blog activities in the past 12 months

Council's blog name

Date of opening the blog

No. of all blog posts

Post no.	Publishing date	Caption	No. of comments	Comments' narration	Remarks

1.					
2.					
3.					
4.					
5.					

APPENDIX 7. INTERVIEW GUIDES FOR COUNCIL MAYOR, DIRECTOR, AND COMMUNICATION OFFICER; MTAA CHAIRPERSON, PO-RALG ASSISTANT DIRECTOR (GOVERNANCE), AND EGA DIRECTOR GENERAL

Mayor/ Deputy Mayor, Director

Introduction

Tanzania's government has improved the local government to enhance the quality and quantity of services, socio-economic development, poverty reduction, and local democracy. Local Government Authorities (LGAs) have adopted the Internet to share information and communicate with the public more e ciently. As there is no adequate knowledge about local online public participation adoption, the research examines the extent and factors in e-participation adoption at the local level to improve citizens' participation.

You were selected purposively to participate in this research because of your position. Participation is voluntary, you can skip any question or exit the interview at any point without explanation. However, the data you will provide are very important in improving the lives of Tanzanians.

Furthermore, your identity will not be revealed in the analysis, all data will be con dential, and will be stored securely according to REPOA's data storage policy.

The interview will last for about 30 minutes.

Question 1: Which information, e.g., plans, budgets, and reports do you provide to citizens via (a) a council website and (b) social media pages? Frequency of updating it. Frequency of publications? Bene ts? Challenges?
Question 2: How frequently do you consult citizens, e.g., during planning via the Internet (e.g., polls, surveys, petitions, social media accounts)? Bene ts? Challenges?

Question 3: (Yes in question 2) To what extent do you consider citizens' online views in decision-making processes, for example, planning? How do you consider them? Benefits? Challenges?
Question 4: To what extent do you consider unsolicited citizens' online views during the planning and implementation of the plan? How do you consider them?
Participant's information
How frequently do you use the Internet in a month?
Which social media pages do you have? Or to which social media have you subscribed?
Gender (Male/ Female) [do not ask,i.e. the appearance will tell]
How old are you? Age/ five interval age group
What is your highest level of formal education? Education level the highest
Position [if not said in the introduction] (What is your current position?)
Number of years of employment (For how many years, have you been working in your current position in this Council? For how many years, have you been working with the Local Government/ Council?) a.) the mentioned position b.) working with the government
What is the name of the council?

Council Chief Information Officer

Introduction

Tanzania's government has improved the local government to enhance the quality and quantity of services, socio-economic development, poverty reduction, and local democracy. Local Government Authorities (LGAs) have adopted the Internet to share information and communicate with the public more e ciently. As there is no adequate knowledge about local online public participation adoption, the research examines the extent and factors in e-participation adoption at the local level to improve citizens' participation.

You were selected purposively to participate in this research because of your position. Participation is voluntary, you can skip any question or exit the interview at any point without explanation. However, the data you will provide are very important in improving the lives of Tanzanians.

Furthermore, your identity will not be revealed in the analysis, all data will be con dential, and will be stored securely according to REPOA's data storage policy.

The interview will last for about 30 minutes.

Question 1: Which information , e.g., plans, budgets, and reports do you provide to citizens via (a) a council website and (b) social media pages? Frequency of updating it. Frequency of publications? Bene ts? Challenges?
Question 2: Does the council website have citizen engagement features, e.g., polls, surveys, petitions, social media accounts)? To what extent do you use them to consult citizens? Benefits? Challenges?
Question 3: what are the other uses of the council's social media pages apart from sharing information and news with citizens?
Question 4: Do the council websites have (a) ward webpages, and (b) Mtaa webpages? Bene ts? Challenges?
Participant's information
How frequently do you use the Internet for work and non-work in a month?
Which social media pages do you have? To which social media have you subscribed?

Gender (Male/ Female) [do not ask, i.e. the appearance will tell]
Age/ five interval age group: how old are you?
Education level— the highest: what is your highest level of formal education?
Position [if not said in the introduction] (what is your current position?
Number of years of employment (for how many years have you been working in your current position in this council? For how many years have you been working with the government, especially the Local Government/ Council? a.) the mentionedposition b.) working with the government
What is the name of the council?

Mtaa chairperson

Introduction

Tanzania's government has improved the local government to enhance the quality and quantity of services, socio-economic development, poverty reduction, and local democracy. Local Government Authorities (LGAs) have adopted the Internet to share information and communicate with the public more e ciently. As there is no adequate knowledge about local online public participation adoption, the research examines the extent and factors in e-participation adoption at the local level to improve citizens' participation.

You were selected purposively to participate in this research because of your position. Participation is voluntary, you can skip any question or exit the interview at any point without explanation. However, the data you will provide are very important in improving the lives of Tanzanians.

Furthermore, your identity will not be revealed in the analysis, all data will be con dential, and will be stored securely according to REPOA's data storage policy. The interview will last for about 30 minutes.

Question 1: H ow much information, e.g., plans, budgets, and reports do you provide to citizens via (a) a council website and (b) social me dia pages? Frequency of updating it. Frequency of publications? Benefits? Challenges?
Question 2: How many scheduled local governm ent Mtaa / community meetings do you have annually? How do you invite citizens? What is their degree of attendance?
Question 3: How frequently do you consult citizens, e.g., during planning via the Internet (e.g., polls, surveys, petitions, social media accounts)? Benefits? Challenges?
Question 4: (Yes in question 2) To what extent do you consider citizens' online views in decision -making processes, for example, planning? How do you consider them? Benefits? Challenges?
Question 5: To what extent do you consider unsolicited citizens' online views during the planning and implementation of the plan? How do you consider them?
Question 6. What is the name of this Mtaa?
Participant's information
How frequently do you use the Internet for work and non -work in a month?
Which social media pages do you have? Or to which social media have you subscribed?
Gender (Male/ Female) [do not ask, i.e. the appearance will tell]
Age/ five interval age group: How old are you?

Education level – the highest: what is your highest level of formal education?
Position [if not said in the introduction]: what is your current position?
Number of years of employment (for how many years have you worked in your current position? For how many years, have you been working wit h the Local Government/ Council?) a. the mentioned position b. working with the government
What is the name of this ward?

Assistant Director, Local Government (Governance)

Introduction

Tanzania's government has improved the local government to enhance the quality and quantity of services, socio-economic development, poverty reduction, and local democracy. Local Government Authorities (LGAs) have adopted the Internet to share information and communicate with the public more e ciently. As there is no adequate knowledge about local online public participation adoption, the research examines the extent and factors in e-participation adoption at the local level to improve citizens' participation.

You were selected purposively to participate in this research because of your position. Participation is voluntary, you can skip any question or exit the interview at any pointwithout explanation. However, the data you will provide are very important in improving the lives of Tanzanians.

Furthermore, your identity will not be revealed in the analysis, all data will be con dential, and will be stored securely according to REPOA's data storage policy.

The interview will last for about 30 minutes.

Question 1: H ow do the councils engage citizens in local government decision -making processes and their implementation, especially at the lower local government level? Benefits? Challenges?
Question 2: To what extent, have the councils used the Internet to share information with citizens, especially at the lower local government level? Benefits? Challenges?
Question 3: Do councils also consult and interact with citizens at the lower local government level using the Internet , for exampl e, during planning ? Benefits? Challenges?
Question 4: Do councils consider online views of citizens channelled through your internet platforms, e.g., social media pages in decision -making processes? How do they consider them? Benefits? Challenges?
Partic ipant's information
How frequently do you use the Internet for work and non -work in a month?
Which social media pages do you have?
Gender (Male/ Female) [do not ask, i.e. the appearance will tell]
Age/ five interval age group: how old are you?

Education level– the highest: what is your highest level of formal education?
Position [if not said in the introduction]. What is your current occupation?
Number of years of employment (for how many years have you been in the current position? For how many years have you been working with the government?) a.) the mentionedposition b.) b.) working with the government

eGA Director

Introduction

Tanzania's government has improved the local government to enhance the quality and quantity of services, socio-economic development, poverty reduction, and local democracy. Local Government Authorities (LGAs) have adopted the Internet to share information and communicate with the public more efficiently. As there is no adequate knowledge about local online public participation adoption, the research examines the extent and factors in e-participation adoption at the local level to improve citizens' participation.

You were selected purposively to participate in this research because of your position. Participation is voluntary, you can skip any question or exit the interview at any point without explanation. However, the data you will provide are very important in improving the lives of Tanzanians.

Furthermore, your identity will not be revealed in the analysis, all data will be con dential, and will be stored securely according to REPOA's data storage policy.

The interview will last for about 30 minutes.

Question 1: H ow does the government adopt e -practices, e.g., e -participation? Stages? Involved people? Challenges?
Question 2: On average, how much time does the process of adopting e -practi ces/ e -applications take? Examples.
Question 3: Do you have (a) Central Government and (b) Local Government e -consultation and e -decision -making guidelines? Benefits? Challenges?
Question 4: Which e -consultation/ interaction features can Central and Local Governments use to interact/ consult citizens? Benefits? Challenges?
Participant's information
How frequently do you use the Internet for work and non -work in a month?
Which social media pages do you have? Or to which social media have subscribed?
Gender (Male/ Female) [do not ask, i.e. the appearance will tell]
Age/ five interval age group: how old are you?
Education level – the highest: what is the highest level of your formal education?
Position [if not said in the introduction]: what is your current position?

Number of years of employment (for how many years have you been working in your current position? For how many years have you been working with the government?

a.) the mentioned position

b.) working with the government

APPENDIX 8. A QUESTIONNAIRE FOR CITIZENS

Introduction

Tanzania's government has improved the local government to enhance the quality and quantity of services, socio-economic development, poverty reduction, and local democracy. Local Government Authorities (LGAs) have adopted the Internet to share information and communicate with the public more e ciently. As there is no adequate knowledge about local online public participation adoption, the research examines the extent and factors in e-participation adoption at the local level to improve citizens' participation.

You are among the selected citizens living on this street. You were chosen randomly. Participation in this research is voluntary, you can skip any question or exit the survey at any point without explanation. However, the data you will provide are very important to improve the lives of Tanzanians.

Furthermore, your identity will not be revealed in the analysis, all data will be con dential, and will be stored securely according to REPOA's dat a storage policy.

The interview will last for about 30 minutes.

Question 1: Having heard and comprehended the information above, do you agree to take this survey? Yes, No
Question 2: When getting together with your family members or neighbours, do you discuss your Mtaa/ community issues, e.g., p oor garbage collectio n, poor public, and primary school toilets, poor sewage system, lack of streetlights, and poor roads? Never, occasionally, frequently
Question 3: In a year, how frequently do you attend local government Mtaa/ community meetings? Never, once, twice, three times, four times, more than four times

Question 4: How many times in a year do you meet with your Lower Local Government level leaders, e.g., Mtaa leaders to discuss Mtaa's a airs like roads?

Never, once, twice, three times, four times, more than four times

Question 5: How frequently do you use the Internet on the following devices?

Columns: 1. Never, 2. less than once a month, 3. a few times a month, 4. a few times a week, 5. everyday

Rows: personal computer, laptop, tablet/ iPad, smartphone, smart tel evision, smartwatch

Question 6: How frequently do you use the following council's information in a year?

Columns: 1. none, 2. once, 3. twice, 4. three times, 5. four times, 6. more than four times

Rows: strategic plan, annual plan/ work plan, budget, pr oject, programme, implementation/ performance report, statistics, by -laws

Question 7: How many times in a year do you use the following means to access the council's information, e.g., plan, budget?

Columns: 1. none, 2. once, 3. twice, 4. three times, 5. four times, 6. more than four times

Rows: council website, council social media page (e.g., Facebook page, Twitter account, etc), Council/ ward/ street office (physical building), other

Question 8: What are your major reasons to use the council's informa tion, e.g., plan, budget, report?

Columns: 1. yes, 2. no

Rows: work, schooling/ studying, monitoring council's plan implementation

Question 9: Do you access the council's social media pages, e.g., Facebook page, Twitter account, YouTube channel, Instagram page? Columns: yes, no Rows: Facebook, Twitter, YouTube, Blog, Instagram pages
Question 10: if yes in question 9: Monthly, how frequently do you perform the following activities concerning the council's posts? Columns: 1. none, 2. once, 3. twice, 4. three times, 5. four times, 6. more than four times Rows: like, dislike, share, comment, reply, vote
Question 11: How many times does the council perform the following activities on their social media pages in a month? Columns: 1. none, 2. once, 3. twice, 4. three times, 5. four times, 6. more than four times, 7. don't know Rows: interacting, e.g., reacting to comments, consulting, e.g., during planning and implementation, providing feedback
Question 12: How many times annually do you participate in the c ouncil's decision -making processes, e.g., planning through online means, e.g., poll, petition? Columns: 1. never, 2. once, 3. twice, 4. three times, 5. four times, 6. more than four times Rows: poll, petition, referendum, forum, survey, feedback
Question 13: How much would you agree or disagree with the following statements if you participated in the council's online decision-making processes, e.g., planning? Columns: 1. strongly agree, 2. agree, 3. neither/ nor, 4. disagree, 5. strongly disagree Rows: the council does not consider my online views, the council informs me whether my online views have been considered, and the council gives reasons for not considering my online views

Question 14: How much do you agree or disagree with the following statements about internet -based information access and participation in the council's decision -making processes, e.g., planning? Columns: 1. strongly agree, 2. agree, 3. neither/ nor, 4. disagree, 5. strongly disagree Rows: it is more e cient, it is more e ective, it is more convenient, it is more appropriate, it is less complicated, the council does not prefer it, the council does not promote it, council o cials do not have adequate capacity to use it,
Question 15: What is your gender? Female, Male
Question 16: How old are you? Choose a category under which your age falls. 18-35, 36 -53, above 53
Question 17: What is the highest level of your formal education? None, primary, secondary, college, university, other
Question 18: What is the main kind of your employment?
Question 19: What is your average monthly gross income in Tanzanian shillings in the past 12 months? Below 65,000; 65,000 -150,000; 150,001 -300,000; 300,001 -500,000; 500,001 -1,500,000; above 1,500,000
Question 20: What is your marital status? Single, cohabited, married, separated/ divorced, widowed
Question 21: What is the name of this ward?

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