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An Analysis on Adoption of E-governance in Public Institutions: A Case Study of Ministry of Lands and Natural Resources, Lusaka

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Abstract

This study aims to assess the adoption and accessibility of e-governance services provided by the Ministry of Lands, driven by the growing significance of digital public services and the need to understand factors influencing their utilization. The sample size consists of 50 respondents from public institution officials, selected from Ministry of lands and Natural Resources. This study employs a mixed-methods approach, combining both quantitative and qualitative research methods. The quantitative approach involves a survey of citizens and public institution officials, while the qualitative approach involves in-depth interviews with key stakeholders. A survey, utilizing probability sampling, was conducted to capture insights on usage patterns, satisfaction levels, and perceived barriers of the ministry's e-governance services. Complementing this, in-depth interviews with key stakeholders, using non-probability sampling such as purposive sampling, were carried out to gain a deeper understanding of implementation challenges and future development plans. The findings reveal significant progress in e-governance adoption, with most respondents engaging in online information access, application, and payment services, though the online feedback service remains underutilized, indicating a need for enhanced citizen engagement. Key factors affecting service accessibility include ease of use, reliability, and responsiveness. The data suggests that the majority of respondents (27) support the adoption and implementation of e-governance strategies at the Ministry of Lands. This is likely due to the potential benefits of e-governance, such as improved efficiency, transparency, and accountability. However, the fact that 15 respondents disagree and 8 are slightly agree indicates that there may be concerns or reservations about the implementation of e-governance strategies. The data also suggests that there may be a need for further education and awareness-raising about the benefits and challenges of e-governance strategies. The 8 respondents who are unsure may require more information or clarification about how e-governance strategies will be implemented and what benefits they can expect. By addressing these concerns and providing education and training, the Ministry of Lands can work towards successful adoption and implementation of e-governance strategies. The report offers recommendations for the Ministry of Lands, suggesting improvements in user-friendliness, system reliability, responsiveness, citizen engagement, and targeted support and training. Implementing these recommendations is expected to enhance service delivery and accessibility, improving overall citizen experience and satisfaction. The research aims to investigate the factors influencing e-governance adoption, assess the effectiveness of existing e-governance services, and identify areas for improvement. The study uses a stratified random sampling design to select participants from various public institutions and citizen groups.

Keywords: E-Governance Services, Human Resources, Ministry of Lands, Public Institutions

1. Introduction

1.1 Background

Globally, the adoption of information communication technologies (ICT) has brought a lot of transformation in business, governance, and communication (Monga, 2008). ICT innovations have brought significant changes in the way private companies function and operate; the way public function and operate, and the way government institutions provide services to citizens (Simenda, 2009). In modernized world like Europe and America, e-governance were adopted in the late 20th to early

21st century, making governance and service delivery efficient and effective (Monga, 2008). However, in comparison to developing world like Africa, government service delivery can be a nightmare. Mostly, government departments and service delivery has been characterized by paper work, long queues, bureaucracy, cramped spaces and citizens' frustrations (Simenda, 2009). In the 21st century, the growing demand for accountability and efficient governance and provision of services have put under pressure on governments and public sector to deliver not only quality, but efficient and effective services (Maranga, 2012). Africa in particular, governments are trying to tackle the demand for efficient governance by re-engineering the processes of how government services are delivered to people. In this regard, ICT has played, and is still playing a major role in developing and delivering services to citizens using online platforms that are faster and efficient. Simenda (2009) argues that if e-governance is properly utilized, it has the potential to enhance channels of service delivery, robustness of government and citizens' communications, and timeliness of service delivery. Equally, the adoption of e-governance is able to address social problems, and strengthen democratic institutions. However, for African States to gain the benefits of e-governance, technology and its infrastructure must be implemented and utilized effectively. The utilization of information technology in fostering delivery of service has potential to transform governance and government institutions (Monga, 2008). Globally, there has been a paradigm shift from traditional way of offering government services; that is, moving away from situations where citizens have to physically visit government offices and queuing for services, to e-governance where government services are offered through ICT platforms. Governments and independent policy makers have realized the importance of adopting ICT platforms as a way to enhance responsive and effective governance (Maranga, 2012). Traditionally, governments utilize paper-and-file approaches in managing services delivery to the citizens, however, the paper-and-file approaches have been majorly ineffective in so far as accountability is concerned (Mehrtens *et al*., 2001).

1.2 Statement of Problem

Despite the potential benefits of electronic governance (e-governance) in improving efficiency, transparency, and accountability in government operations, its adoption and performance in Zambia, particularly at Ministry of Lands and Natural Resources, remains unclear. This is evident in the limited use of e-governance tools such as the Digital Communication Channels. For example, the social media platforms and official websites to disseminate information, receive feedback, and interact with residents and address their concerns. This has led to inadequate service delivery, low citizen engagement, and ineffective management of public resources. This problem has been exacerbated by the lack of a comprehensive understanding of the factors influencing e-governance adoption and performance in the country. Compounding the issue is the difficulty in gathering detailed data at the district level. Various studies have been conducted on adoption of e-governance in different public sector organizations (Venkatesh *et al*., 2003 [53]; Bhuiyan, 2009 [11]; Colesca, 2009; Matavire *et al*., 2010; & Davis, 2013). Most of this authors examined adoption of e-governance using Technology Acceptance Model (TAM), others used UTAUT Model to determine role of e-governance in development, and solutions to minimize e-government risks. Studies have also been done in the Kenyan context to determine adoption of e-governance in the public sector (Kandiri & Onyango, 2007 [44]; Gakiria, 2009 [37]; Mumbi, 2013; & Muraya, 2015). However, most of this studies did not examine adoption of e-governance for devolved County governments context.

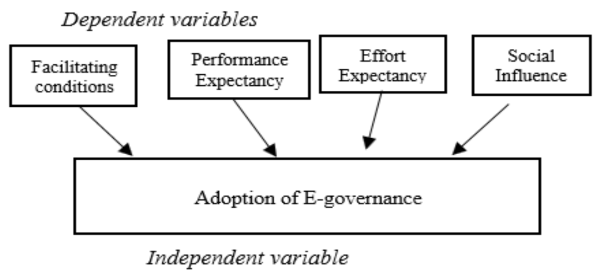
1.2.1 General Objective

To assess the diverse impact of e-governance initiatives on the accessibility and adoption of public services at Ministry of Lands.

1.2.2 Specific Objectives

1. To establish the factors influencing the adoption of strategies of e-governance at Ministry of Lands.
2. To examine the effectiveness of e-governance tools and services at Ministry of Lands.
3. To identify the effects of e-governance on service delivery, citizen engagement and public resource management at Ministry of Lands.

1.3 Conceptual Framework



The conceptual model consists four determinants for adopting e-governance and other information technologies which includes performance expectancy, effort expectancy, social influence, and facilitating factors, which will form the independent variables of the study. Performance Expectancy is the performance of information technology from the user point of view. This includes how efficient, effective, and quality e-governance technology is. Effort expectancy on the other hand is the degree of ease that is associated with use of the e-government system. Social influence refers to the degree of importance that individuals place on e-governance based on social context. Facilitation conditions on the other hand consists of ICT, accountability, infrastructure, transparency and government support. Gender and job experience were used as moderating variables in this study, while adoption of e-governance was the dependent variable.

1.4 Significance of Study

The It is anticipated that the end result of this study will be helpful to the Ministry of Lands on their effectiveness and efficiency in prompt public service delivery. The study will further bridge the gaps that currently exist in the public service deliver and information dissemination processes.

1.5 Scope of Study

This study will focus on examining the effectiveness of e-governance tools and services at Ministry of Lands.

1.6 Operational Definitions of Concepts

The E-Governance: E-governance is used in this study to the utilization of information technology platforms, or by electronic means by the public sector to provide or render services to the general public.

Information Communication Technology (ICT): Information Communication Technology (ICT) in this study means the utilization of internet, Wide Area Networks, local area networks, computers, mobile phones and other online platforms to advance communication, delivery of businesses, and services to the citizen.

Effort Expectancy: Effort expectancy is used to refer to the ease with which users expect to find utilization of e-government services to be compared to traditional ways of queueing for services.

Facilitating Conditions: Facilitating conditions are used to refer to the policies, processes, systems, structures that need to be in place to enhance adoption of e-governance in the public sector.

2. Literature Review

2.1 The Level of Adoption of E-Governance Services

E-government refers to using Information Technologies (IT) for efficiency, effectiveness, transparency, and responsibility of government services. It improves governance through citizen empowerment and participation, better delivery of government services, more efficient management, less corruption, more transparency, greater convenience, increased revenue, and reduced cost (Chowdhury, 2008; Titah & Barki, 2006) [21, 51]. Successful E-government adoption offers stakeholders significant financial, administrative, social, and political benefits and values (Moatshe, 2014). The most advanced countries in E-government implementation could capture 20% of savings (Titah & Barki, 2006) [51]. It gives citizens more control over how and when they interact with the Government. Notably, citizens can receive government services anywhere convenient to them within seven days/24 hours instead of visiting a government department at a particular location or calling several times to get a service. Some drawbacks of traditional government systems, such as waiting time at physical premises due to the number of clients, inefficient procedures to be followed, and a limited number of personnel to interact with clients, will be avoided with the E-government initiatives (Alshehri & Drew, 2011; Bhatnagar & Singh, 2010) [6, 10]. Thus, it can be considered a paradigm shift in the public service delivery process with disruptive technologies in the 21st century.

Modern advancements in information and communication technologies (ICTs) have prompted governments to invest more resources into promoting internet usage and internet-based services. The provision of online services in governmental websites is now a challenge for governments all over the world (Abu-Shanab, 2017) [1]. The website is an important source of information, due to its ubiquity (availability anywhere and anytime), low cost, ease of use and interactive character. The United Nations (UN) definition of e-government is “the use of information and communication technologies by the government to provide information and public services to the people” (UN E-Government Survey, 2014). By converting from traditional to online services citizens can access e-government services 24 hours per day, and it also presents benefits of efficiency, cost reduction, and quality (Linders, 2012). E-government services are believed to make overall government processes more efficient as a result of improved connectivity and ease of access (Lin *et al*., 2011).

It is reported that many nations have extensively adopted E-governments and have reaped more benefits. In contrast, some countries reported lagging behind speedy adoptions (Bojang, 2021 [12]; Carter & Weerakkody, 2008 [16]; United Nations, 2018). E-government services cannot provide public service delivery if they are not used by the public (Al-Hujran *et al*., 2015) [4]. Therefore, citizen adoption of E-government services is an essential issue for the success of E-government initiatives (Carter & Bélanger, 2005) [15]. Adoption is a choice of whether to use or not the public’s E-government services (Dilhani & Priyashantha, 2021; Dilhani & Priyashantha, 2021) [31]. Thus, the adoption of E-government services is determined by citizens’ intention and (Carter & Bélanger, 2005; Warkentin *et al*., 2002) [15, 55] willingness (Gilbert *et al*., 2004) [38]. Additionally, the intention to use and e-readiness cause the adoption of E-government services (Alateyah *et al*., 2013) [3]. Besides, E-government adoption offers stakeholders significant financial, administrative, social, and political benefits and values (Moatshe, 2014; Dilhani & Priyashantha, 2021 [31]). To the best of the authors’ knowledge, a synthesis of the empirical findings of determinants and consequences is limited.

The Digital India Mission was launched by the Government of India in 2015, as an expanded version of the earlier National e-Governance Plan (NeGP) and included not only fostering e-government development but also the usage of digital technologies by everyone (Agrawal *et al*., 2007 [2]; Chaudhary, 2017 [19]; Mahajan, 2012; Narasimhan, Sharma, & Kaushal, 2012). and qualitative discourses on the generic challenges faced by e-government implementation (Dwivedi & Bharti, 2010 [34]; Fernandes & Shetty, 2016 [36]; Mittal & Kaur, 2013; Yadav & Singh, 2012). Apart from these, Bhatnagar and Singh (2010) [10] have developed an assessment methodology to measure the impact of e-government services for the citizens, and Ojha and Pandey (2017) make various theoretical propositions for innovative PPP-based financing approaches for e-government projects.

It is well-acknowledged that e-government adoption in India is low despite its immense potential, but to the best of our knowledge, there limited study on the adoption levels. According to CISCO's 2017 Visual Networking Index report, the number of smart-phone users in India would double in five years from 400 million in 2017 to more than 820 million in 2022, making it the fastest growing smart-phone market in the world. Now, the most unique aspect about smart-phones is that it fosters digital literacy among those who do not own personal computers, and even among those who have not had adequate education; and more so when internet data prices in India have fallen by about 90% in the year 2018 (Moses, 2018), bringing the facility of internet-based services to a wider section of the citizens. This indicates the potential for e-government in India. Since the success of any e-government initiative depends on the adoption of its services by the citizens, there is a need to investigate the drivers and barriers to e-government adoption from the citizen's perspective. In the Indian context, Lal (2012) and (R. Kumar, Sachan, & Mukherjee, 2017) have proposed research models explaining technology adoption, but these models have not been tested practically. Other studies surrounding e-government research in the

Indian context have focused on usability/service quality of the e-government websites.

Organizational characteristics influencing e-government adoption discussed by researchers included red-tape/corruption and size of the civic body. Shifting government transactions online provides for cutting through the red-tape (Ntulo & Otike, 2013). Barki and Titah (2006) [9] points out various studies illustrating that the presence of red tape is negatively associated with organizational adoption of e-government practices as well as the quality of information made available under its service. Cohen and Eimicke (2003) [22] elaborate this phenomenon through what they term as 'politics of information' whereby there is low willingness among the government officials to place 'meaningful information' on the web. Size of the civic body is often cited to be one of the determinants of successful e-government casually, but it was established empirically in a 2000 International City/County Management Association (ICMA)2 survey of all U.S. local governments to influence e-government adoption levels (Patel & Jacobson, 2008). About the role of leadership, it is argued that it is the most decisive of the organizational factors.

2.2 How is E-Governance Currently Being Implemented

Information and communication technologies (ICTs) currently offer increased opportunities for economic growth for developing countries. They are increasingly playing a critical role in facilitating rapid economic change anchored on improved productive capacity and international competitiveness for these countries. This way, ICTs have contributed greatly to the growth of gross domestic product (GDP) of the global economy. The global information technology report (2015) cites a positive correlation between a country's ICTs usage and its economic and social growth (Dutta, Geiger and Lanvin, 2015) [33]. To this end, governments are making investments ICTs in the public sector so as to improve the delivery of services online and enhance e-participation of citizens. Consequently, electronic government (e-government) initiatives have increased in developing countries such as Ghana, Senegal, Brazil, India, Chile, Argentina, the Philippines, and Malaysia, among others, where they are reaping the benefits of using ICTs in the delivery of public sector services (UN, 2014).

The Working Group on E-government in the developing world has identified five broad categories of goals commonly pursued for E-government. E-government is a means to accomplish these broader social goals, goals that move beyond mere efficiency of government processes to that of overall reform and development. The goals are not listed in any particular order of importance, as each country must determine its priorities in E-government (Phonepaseuth Solinthone, Tatyana Rumyantseva, 2016).

Policy-makers, in trying to achieve development goals through E-government, should consider projects that would deliver the most benefits to the broadest number of people (Phonepaseuth Solinthone, Tatyana Rumyantseva, 2016).

More than 70 experts from different segments of German society support and have contributed to the Memorandum on e-government, where e-government is defined as "the execution of processes of public opinion formation, decision-making, and performance of functions in politics, state, and administration with the intensive use of information technology" (GI and VDE, 2000, 3).

The sociological point of reference of this model is the metaphor of the digital information society as a society, in which purpose-oriented knowledge and the new IT as the means of its supply possesses great significance (Steinbicker, 2001; Webster, 2002). In public perception the transition to this stage is particularly connected with the rapidly increasing number of Internet users. The Internet actually does not form the only, but probably the most important, technical basis for the information explosion in everyday life, which was initiated in the USA in the early nineties and then spread to all other developed countries including the Federal Republic of Germany.

In June 2003, the Bund Online 2005 initiative was complemented by the initiative Deutschland Online (Federal Ministry of the Interior, 2004b; Wewer, 2004, 347 ff) in order to intensify cooperation and coordination between different levels of the German governance system. The core aim of this initiative is to promote integrated electronic services inside of and across all levels of administration as well as to create the required standards and infrastructures.

For many years, the federal and state administrations have cooperated in developing uniform software applications for the German internal revenue offices, which are connected in part to the federal or state governments, respectively. These activities are coordinated by a company called Fiscus (Bruhn, 2005) [13].

Because the innovation potential of the German cities, towns and districts varies considerably, the status of e-government on the local level is characterized by a strong heterogeneity concerning the progress towards electronic administration, electronic democracy and a successful reshaping of organizational structures and procedures (Eifert, 2004, 124) [35].

Such a potential to popularize and improve the concept of e-government was partly found in close collaboration with the corporate world of big business (Dunleavy *et al*., 2006) [32] which could help to reduce significantly the costs of developing the necessary communication and computer systems, as well as mechanisms in order to ensure information security in federal agencies. In addition, as a result of the efforts to decrease government, the outsourcing of public services to the private sector became really widespread across many federal agencies (Bach & Kolins Givan, 2011) [7] while further decentralization of public administration was regarded as a public value (Alonso, Clifton & Díaz-Fuentes, 2015) [5].

Based in Washington, DC, this research center provides significant technical expertise and help to the public sector with innovative ideas in improving the effectiveness of e-government systems both at the federal and local levels (The IBM Center for the Business of Government, 2015).

One more indirect reason why big business is so interested in participating in these processes is the fact that the United States is a federal union where a really broad political and financial autonomy of separate branches of power, separate states and even major cities and counties in many areas of economy and governance, including public administration, is a norm of the political system (Jaeger, 2002) [43].

For example, there are a lot of civic engagement initiatives related to the development of e-government systems that enable citizens to express their views and comments on various political issues (Linders, 2012), participate in debates and polls (Hurwitz & Mallery, 1995) [41], which are experiencing some renaissance today, especially at the local level (Levy, Trauth, and Bagby, 2015). According to Zbigniew Brzezinski, a significant advantage in the field of information technology is crucial for the development of the United States (Brzezinski, 2007) [14]. However, the relentless desire of the federal government to reform public administration and even traditional political communication channels through e-government-related plat-forms and projects with some degree of participation and civic engagement of local communities requires not only infrastructural readiness of the country but also closing the digital divide (Helbig, Gil-García & Ferro, 2009) [40], which could be really wide and staggering from community to community even in one state or major city. In addition, the preliminary predictions on a promising transformative and democratic nature of e-government do not correspond to the real practice, especially at the local level (Norris and Reddick, 2013), truly undermining all the efforts invested into these expensive projects.

Many of these projects have been initiated and funded by local authorities in close cooperation with federal agencies and large national and multinational corporations as well as non-governmental organizations (Servon, 2008). This is another example of the promising potential of public-private partnerships in addressing social issues and challenges, since the training that focused on those who were techno-disadvantaged has proved to be really effective in improving the statistics of online visits to the public e-government portals (Sipior and Ward, 2009) and promoting civic engagement, especially at the local level, in impoverished and underrepresented communities.

2.3 Factors Influence the Accessibility of E-Governance Services

Recently, many governments have started to use technology as an instrument to change relationships with their people (UNDESA, 2014). When governments began to use these technologies to transform some of their services into digital forms a range of terms were introduced, such as ‘digital’, ‘e’ government, ‘virtual’, ‘cyber’ and the like, and have become epithets applied to various existing activities and social institutions, Woolgar (2002), so, the global information society, coupled with modern innovative capabilities, contributes to the digital transformation of countries, industries, and individual companies, Shpak *et al*., (2020); Kliestikova & Janoskova (2017) [46], and now transformation toward e-government is a global movement would not leave any one behind (Hussain *et al*., 2020 [42]; Todorovic *et al*., 2019).

Parent *et al*. (2005) [50] discussed that e-government cannot increase trust in utilizing its services unless politicians make efforts to raise trust in government among citizens, irrespective of eservices. Considering this issue in e-government context, politicians are responsible for building perceived trust in citizens’ minds to convince them using e-government applications, services and transactions. But before this, politicians themselves have to be already convinced of e-government importance in order to give proper supports to its projects, also it has been found that the existence of a belief among leaders is a main influencing factor for completing such projects successfully, especially among top leadership and the probabilities of success increase when leadership is strong, Kim *et al*., (2009) [45]; Bakacsi (2010) [8], in the same tone, many studies as Heeks (2003) [39] and Toots (2019) [52] consider political and top management support to be vital in executing e-government, especially in e-democracy and participation (Council of Europe, 2009) [24].

Many studies have defined e-government in different ways: Coleman (2006) [23] has defined e-government as the combination of electronic information-based services (e-administration) with the reinforcement of participatory elements (e-democracy) to achieve the objective of “balanced e-government”. Muir and Oppenheim (2002) [48] defined e-government as the delivery of government information and services online through the internet or other digital means. E-Government has also been defined as the delivery of improved services to citizens, businesses, and other members of the society through drastically changing the way governments manage information (Kumar *et al*., 2007) [47]. This entails that citizens can collaboratively participate in decision/policy making. This is the case because governments have been viewed as complex, mammoth bureaucratic establishments with a set of information silos that erect barriers to access of information and make the provision of services cumbersome and frustrating (Coleman, 2006) [23]. E-Government can also result in huge cost savings to governments and citizens alike, increase transparency and reduce corrupt activities in public service delivery. Previous studies have categorized public service delivery in three groups: publishing, interacting, and transacting (Kumar *et al*. 2007) [47].

Despite the huge determination of many governments the world over in implementing e-government and the acclaim that e-government has finally won, previous studies present mixed cases (failure or success) of implementing and adopting e-government into the socio-economic setup. Heeks (2003) [39] partitions e-government success in three different categories:

Most of the times, these theories take one of the following forms or approaches: a diffusion approach, an adoption approach or a domestication approach (Titah *et al*. 2006). In 1989, basing his thoughts on the Theory of Reasoned Action (TRA) (Napoli, 2000 [49]; Castells, 1996 [17], 2001 [18]), Davis developed the Technology Acceptance Model (TAM) in a bid to explain how the users come to accept and use technology (Curtin *et al*., 2003) [28].

In order to succinctly explain the adoption model of technology, Venkatesh *et al*., (2003) [53] extended the TAM and called it the Unified Theory of Acceptance and Use of Technology (UTAUT). The UTAUT helps managers assess the likelihood (probability) of success for new technologies as well as understand the drivers of technology acceptance. Everett Rogers’ theory of Diffusion of Innovations (DOI) within the framework of the diffusion approach aims to analyze the characteristics of technology adopters (Napoli, 2000) [49]. Among others, these characteristics include the image, relative advantage, compatibility, complexity, visibility, results demonstrability, and voluntariness of use of the innovation. Wangpipatwong *et al*. (2005) [54] have explored which factors influence the adoption of e-Government websites regarding information quality and system quality aspects. Accuracy, relevancy, and completeness were more significant than timeliness and precision with efficiency being the most significant factor. For the developed world, let’s look at a study that was conducted by Choudrie and Dwivedi (2005) [20] in the United Kingdom.

In proposing adoption criteria for e-government, Warkentin *et al*. (2002) [55] proposed a conceptual model with citizen trust as the underlying catalyst for e-government adoption. Gilbert and Balestrini (2004) [38] proposed and tested a model that combines attitude-based and service quality-based approaches. From the literature, it is clear that a number of frameworks founded on the Theory of Reasoned Action and Technology Acceptance Model have been utilized to explain the consumer adoption of the internet. The study by Warkentin *et al*. (2002) [55] proposes perceived risk, perceived behavioral control, usefulness, and perceived ease of use. It defines perceived risk as a fear of losing personal information and fear of being monitored on the internet.

The other model by Gilbert and Balestrini (2004) [38] brings attitude-based and service-quality-based approaches together. The model outlines the willingness to use e-government services incorporating perceived (confidentiality, ease of use, safety, reliability, visual appeal and enjoyment) and perceived relative benefits.

Thus, we can succinctly state that the profound objective of the e-government initiative ought to be the frequent and recurring use of online services by citizens not only for obtaining information but also for interacting with the government. Warkentin *et al*. (2002) [55] described adoption as the intention of citizens to engage in e-government to receive information and request services from the government. Gilbert and Balestrini (2004) [38] measure it as the willingness to use e-government services while Carter and Belanger (2005) [15] measure it as the intent to use e-government services. The model proposed in this paper aims to make an extension of the conceptual model proposed by Kumar *et al*. (2007) [47]. In that paper, the model was premised on the belief that e-government adoption is largely shaped by the extent to which the government can provide a rich, engaging, and hassle-free experience that is reliable and can provide higher levels of satisfaction. The model in Kumar *et al*. (2007) [47] mentions that for effective e-government adoption, the different attributes to be satisfied are the following: a) User characteristics (perceived risk, perceived control), b) Website design (perceived usefulness, perceived ease of use (usability); c) service quality; and d) client satisfaction.

In brief, the major contributions of the various models outlined in the literature review above are the following: As Wangpipatwong, Chutimaskul and Papasratorn (2005) [54] have explored, there are different factors influencing the adoption of e-government services by the general population. Kumar *et al*. (2007) [47] pointed out citizen's usage, issues of trust and usability as one of the central factors acting as a barrier to wide-adoption of the e-government in Canada. Other previous studies have emphasized website navigability and aesthetics (Coleman, 2006) [23], personalization and customization (Thorbjornsen *et al*., 2002) and loyalty programs (Kumar *et al*., 2006) as key strategies to attracting individuals to visit a website. Warkentin *et al*. (2002) [55] proposed a conceptual model with citizen trust as the underlying catalyst for e-government adoption. This study also proposed perceived risk, perceived behavioral control, usefulness, and perceived ease of use. Gilbert and Balestrini (2004) [38] proposed and tested a model that combines attitude-based and service quality-based approaches; and their other model brings attitude-based and service-quality-based approaches together.

2.4 Establishment of Research Gap

Some scholars have argued that the emergence of e-government represents a paradigm shift in the organization of the public sector that will have a profound effect on public administration in terms of technology, cost-efficiency, risks, and benefits to the public (Criado and Ramilo, 2003; Ho, 2002; Reschenthaler and Thompson, 1996). The present study focuses on the propensity of e-government to encourage a so-called ‘service orientation’ in public administration. For the purposes of the study, the term ‘service orientation’ is defined as a set of organizational policies, practices, and procedures intended to foster the creation and delivery of service excellence. In undertaking a review of previous research into service orientation in the field of e-government, the study has identified five (somewhat overlapping) areas that are worthy of note: (i) service design; (ii) service systems; (iii) service encounters; (iv) human-resource management; and (v) service leadership.

3. Research Methodology

3.1 Research Design

This study adopts a case study design, which is well-suited for providing an in-depth analysis of specific cases through the integration of both quantitative and qualitative data collection methods. The case study design allows researchers to explore complex phenomena within their real-life context, offering a comprehensive view of the research issue. This approach is supported by Creswell and Poth (2018) [27] and Lindsay-Smith *et al*. (2018), who emphasize its effectiveness in developing detailed cases for comparative analysis.

3.2 Target Population

The target population for this study has included employees at the Ministry of Lands, focusing on those involved in various e-governance activities. This has encompassed staff across various departments within the ministry, ensuring a comprehensive representation of perspectives related to e-governance, capacity building (Creswell, 2014) [25]. The total population has comprised all employees working in these departments, providing a broad base from which to draw insights.

3.3 Sampling Design

The study has employed purposeful sampling techniques, chosen for their suitability in capturing in-depth insights from individuals with specific expertise. Purposeful sampling has been selected because other government agencies typically focus on administrative functions and thus lack a profound understanding of road construction projects. This method has been widely utilized in qualitative research to identify and select cases that provide rich information about the phenomenon of interest (Creswell & Plano Clark, 2011) [26].

3.4 Data Collection methods

In this sense, the researcher will use a meticulous technique to gather and collect primary data for the purpose of this study. Hence, the validity, reliability, objectivity, and authenticity of data are more in primary data in comparison with the secondary data types (Taherdoost, 2021).

Secondary data on the other hand, is the data gathered from published sources meaning that the data is already gathered by someone else for another reason and can be used for other purposes in a research as well (Taherdoost, 2021). Thus, secondary data in this study is more utilized under literature review. Thus, secondary data is an essential part of research that can help to get information from past studies as basis for conduction and implementing research or as the required background information. It should be noted that researchers need to re-examine the validity and reliability of these backgrounds to gain authentic results (Taherdoost, 2021).

3.5 Data Analysis

Different techniques such as modelling to reach trends, relationships, and therefore conclusions to address the decision-making process are employed in this process (Start, 2006). However, data will be prepared first before the analysis process. Data preparation is the process in which data is converted to the numerical format which is machine-readable to be used in specific analyzing programs such as Excel Microsoft, SAS or SPSS.

3.6 Triangulation

Triangulation, a research strategy that involves using multiple methods or data sources to enhance credibility and validity, can significantly strengthen this study on the adoption of e-governance at the Ministry of Lands. Methodological triangulation will be employed through both quantitative and qualitative approaches. Quantitative data from surveys and structured interviews will provide numerical insights into level of adoption, implementation of e-governance, and factors influencing the e-governance system, while qualitative data from interviews and focus groups will offer deeper insights into stakeholder motivations and perceptions (Creswell, 2014) [25].

3.7 Limitations of the study

Conducting research had several limitations. One primary challenge lied in the fact that some respondents are not so good with English, as a result there was need to explain everything in simpler terms. This prolonged the data collection process. Other respondents found it hard to give out personal information. As a result, the researcher had to repeatedly reassure them of confidentiality so as to convince them.

3.8 Ethical Considerations

Ethical considerations for this study have been paramount to ensure the protection and well-being of participants. Informed consent will be obtained from all participants, ensuring they understand the study's purpose, procedures, and potential risks and benefits (Creswell & Poth, 2018) [27]. Participants' confidentiality and anonymity will be strictly maintained by using codes rather than personal identifiers in data analysis and reporting (Denzin & Lincoln, 2018) [30].

4. Presentation of Research Findings

4.1 Presentation of results on background characteristics of the respondents

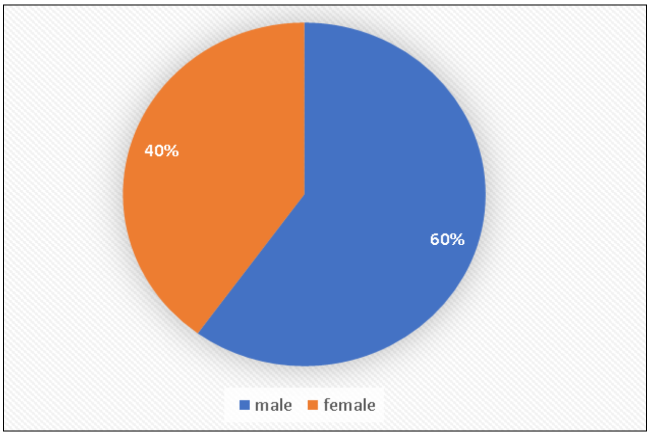


Fig 4.1: Gender of respondents

The figure above shows that the majority represented gender were males 60% whereas females were the marginal represented population in the study making 40%.

4.2 The age of respondent

Age was important in conducting this study because it influenced the interviewer's perception of the respondent's performance. As a result, respondents were asked to indicate their age and below Fig 4.2 shows the results obtained.

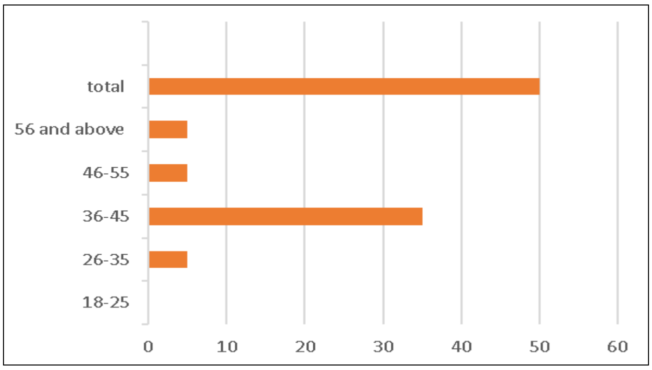


Fig 4.2: Age distribution of Respondents

The age mean was found to be [$\mu = 46$] at an estimated [$\Omega = 25$]. The index of variability was large in this study and as such this demonstrated that the sampled population were mature and experienced. Therefore, the results of this study can valid and trusted. The figure above shows the majority sampled group aged between 36-45. Secondly, the respondents belonging to the 26-35, 46-55 and 56 age bracket.

4.3 Level of Education

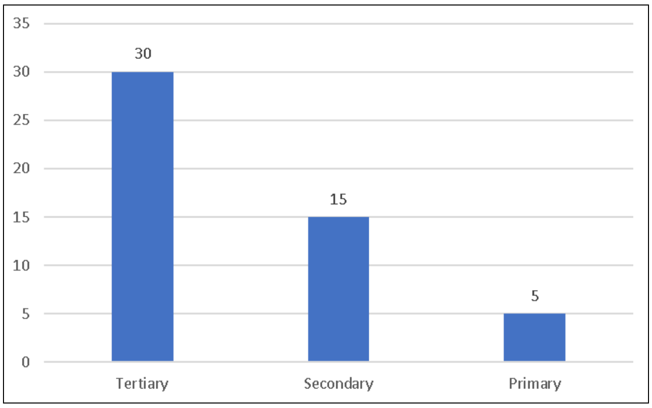
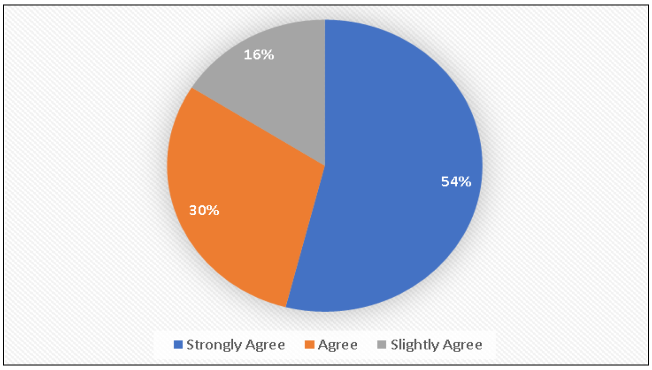


Fig 4.3: Education level of respondents

According to Fig 4.3, the respondents who obtained "tertiary" qualification were the majority making 60%. the marginal population 10% held a primary qualification at the time of data collection.

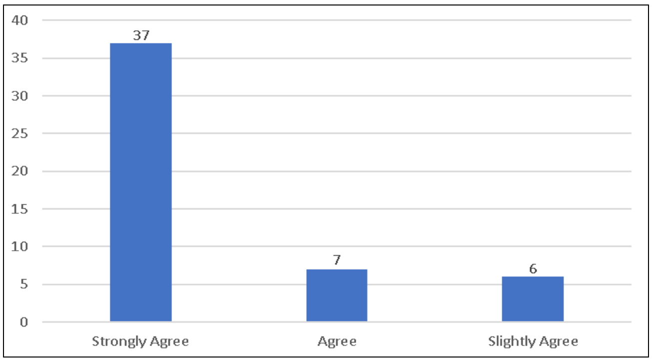
4.4 Presentation of results on based on objective one: Factors that influence the adoption and implementation of e-governance strategies



Source: 2024

Fig 4.2.1: Technical structures

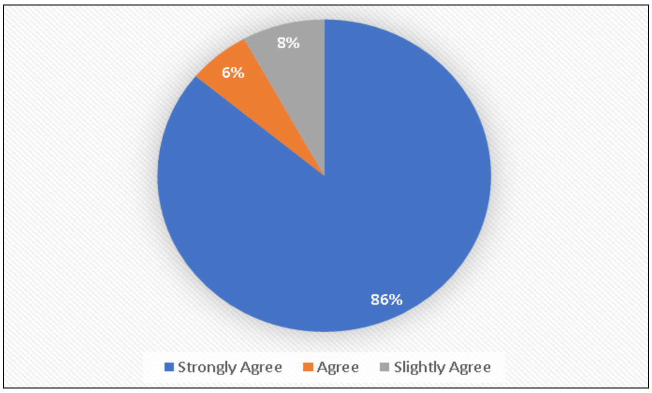
The majority of respondents (27) strongly agree with the statement, indicating a strong positive sentiment. However, a significant minority (15) agree, suggesting that there are differing opinions on the matter. The presence of 8 slightly agree respondents.



Source: Data 2024

Fig 4.2.2: Leadership commitment and support

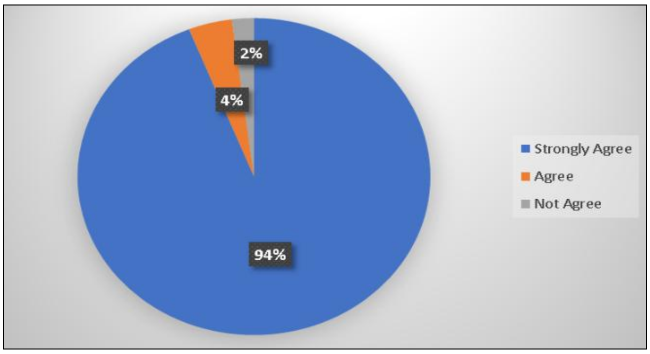
A clear majority (37 respondents) strongly agree with the statement, indicating strong support. However, a combined 13 respondents (7 "agree" and 6 "slightly agree") express uncertainty.



Source: Data 2024

Fig 4.2.3: Employee training and capacity building

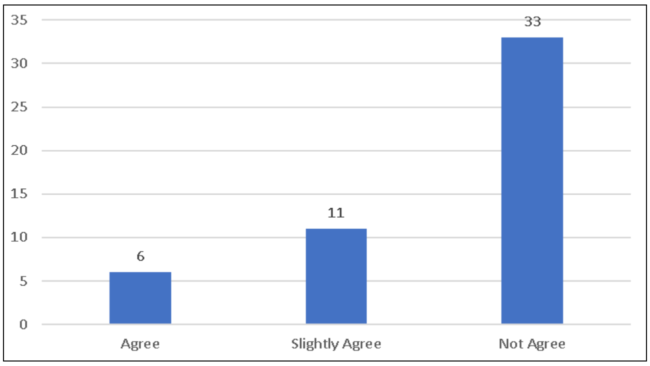
The data shows a clear majority (43 respondents) in strongly agree, indicating a strong positive sentiment. In contrast, only 3 respondents agree, suggesting that opposition to the statement is minimal. The small number of undecided respondents (4) highlights a relatively low level of slightly agree.



Source: Data 2024

Fig 4.2.4: Effectiveness of e-governance on citizen engagement and participation in land administration

The data shows a strong consensus, with 47 respondents strongly agree and only 2 slightly agree, indicating a high level of support. The extremely low number of disagreements (2) and not agree responses (1) suggests that the issue is not contentious, and most respondents have a clear opinion.



Source: Data 2024

Fig 4.2.5: Security and privacy concerns

The data shows a clear majority (33 respondents) disagreeing with the statement, indicating a strong negative sentiment. In contrast, only 11 respondents slightly agree, and 6 are agree, suggesting that the issue may be contentious or require further clarification.

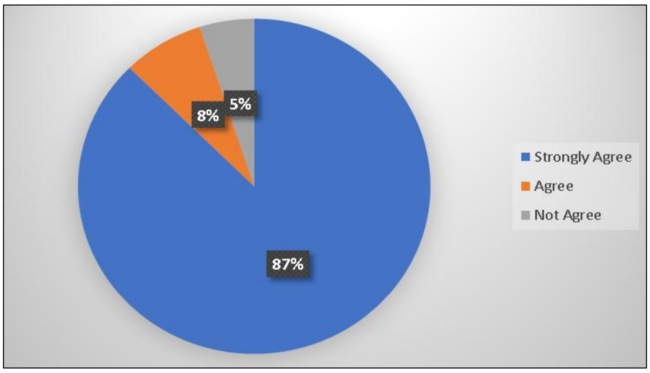


Fig 4.2.6: Organization culture

The data shows a strong consensus, with (87%)35 respondents strongly agree, indicating a high level of support. In contrast, only (8%) 3 respondents agree, and (5%) 2 are not agreeing, suggesting that opposition to the statement is minimal and uncertainty is low.

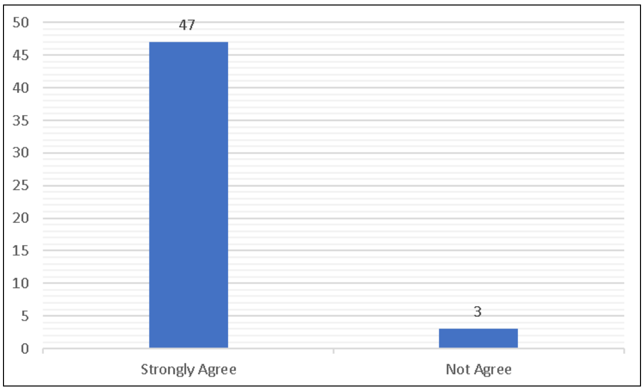
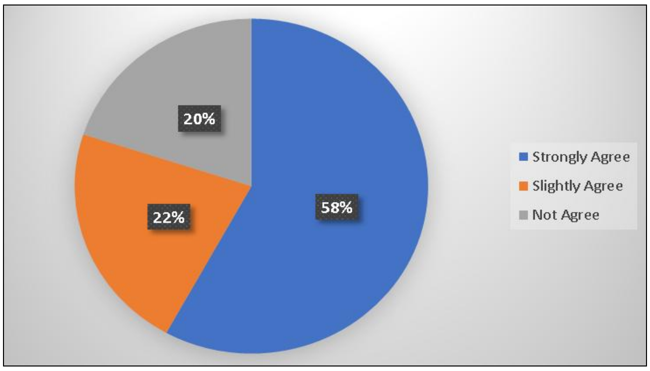


Fig 4.2.7: Collaboration and partnerships with other government agencies and stakeholders

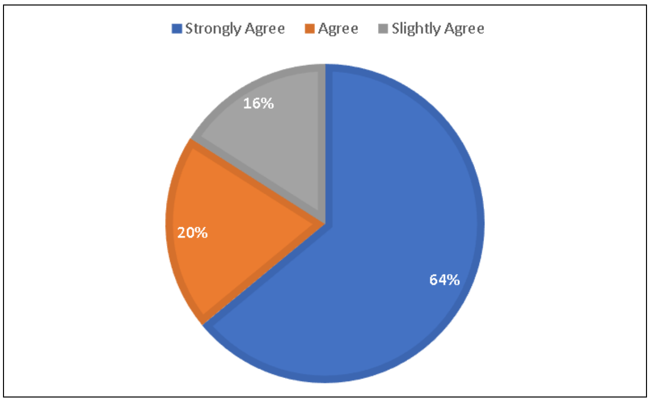
The data shows an overwhelming majority (47 respondents) in strongly agree, indicating a strong positive sentiment. In contrast, only 3 respondents are not agree, suggesting a relatively low level of uncertainty. This significant imbalance between agreement and uncertainty may indicate a clear consensus.



Source: Data 2024

Fig 4.2.8: Vision and strategies that guide the adoption and implementation of e-governance

The majority of respondents 58% (29) strongly agree with the statement, indicating a positive sentiment. However, a significant minority 22% (11) slightly agree, suggesting that there are differing opinions on the matter. A notable proportion 20% (10) not agree.

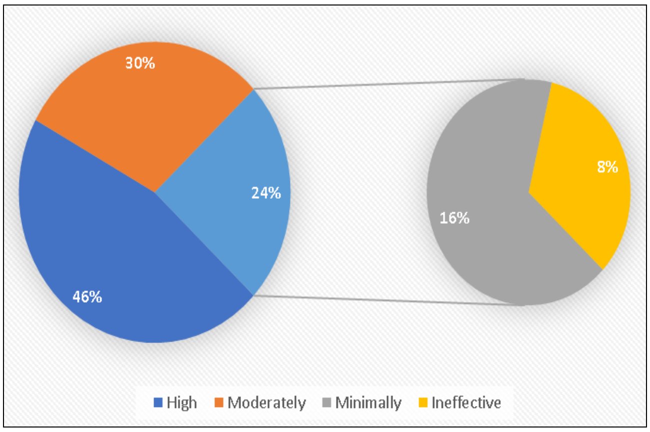


Source: Data 2024

Fig 4.2.9: Funding and resources allocation

The majority of respondents (32) 64% strongly agree, indicating a positive sentiment, while 20% (10) respondents agree, suggesting some opposition. The presence of 16% (8) slightly agree respondents highlights the need for further clarification or education on the topic.

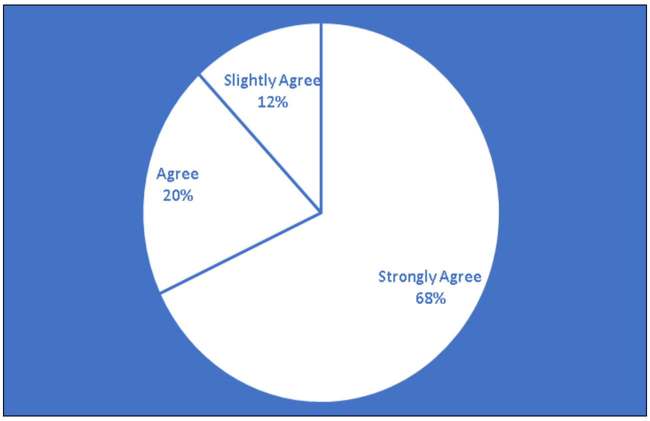
4.5 Presentation of results based on objective two: The extent to which e-governance tools and services Implemented to improve efficiency and transparency



Source: Data 2024

Fig 4.3.1: Effectiveness of e-governance services tools

The data suggests that a significant proportion of respondents (23) believe that e-governance tools and services have been highly effective in improving efficiency and transparency. However, a notable minority (15) think that the impact has been moderate, while 8 respondents believe it has been minimal. The 4 respondents who think e-governance has been ineffective highlight a need for improvement.



Source: Data 2024

Fig 4.3.2: Effectiveness of e-governance service to enhance transparency

The majority of respondents (34) 68% believe that e-governance services significantly enhance transparency in land administration, indicating a strong positive impact. A notable proportion (10) 20% think that e-governance services somewhat enhance transparency, suggesting a moderate impact. However, the 12% (6) respondents who believe that e-governance services only slightly enhance transparency highlight a need for further improvement.

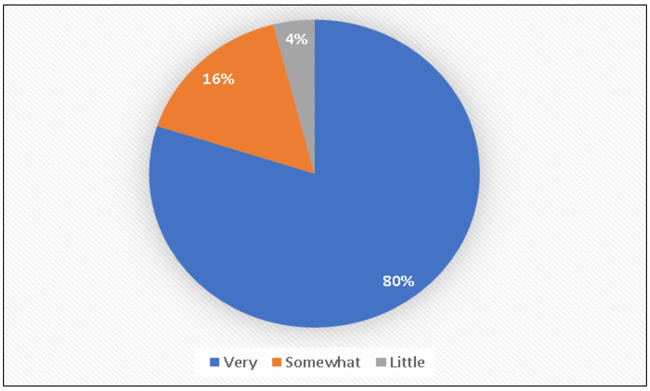


Fig 4.3.3: Effectiveness of e-governance initiatives

A significant majority of respondents (40) 80% believe that e-governance services enhance transparency in land administration to a very great extent, indicating a strong positive perception. A small proportion (8) 16% think that e-governance services somewhat enhance transparency, suggesting a moderate impact. The negligible number (2) 4% who believe that e-governance services have little impact on transparency highlights the overwhelming support for e-governance in enhancing transparency.

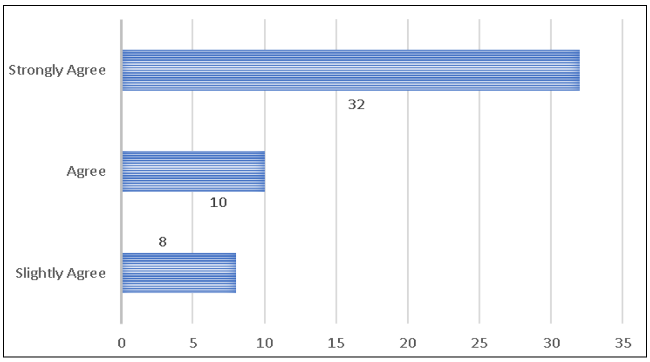


Fig 4.3.4: Effect of e-governance on citizen engagement

The majority of respondents (36) hold a positive view, believing that e-governance services enhance transparency in land administration. However, a notable proportion (9) remain neutral, suggesting that they may not have experienced or witnessed significant transparency enhancements. The 5 respondents who are uncertain highlight a need for further education or awareness-raising about the benefits of e-governance in enhancing transparency.

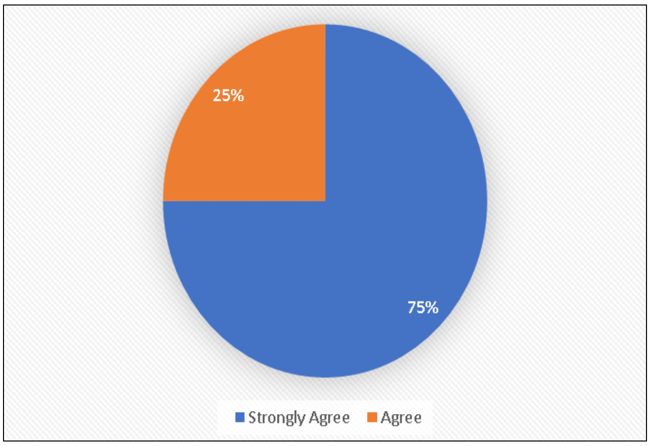


Fig 4.3.5: Effectiveness of e-governance tools to improve accuracy

The overwhelming majority of respondents (45) believe that e-governance services substantially enhance transparency in land administration, indicating a strong positive perception. The small proportion (5) who think that e-governance services moderately enhance transparency suggest that there may be some limitations or areas for improvement.

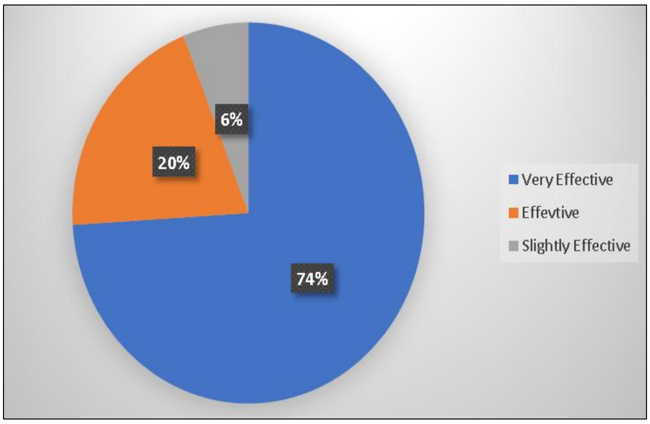


Fig 4.3.6: E-governance in enhancing accountability

A significant majority of respondents (37) believe that e-governance services highly enhance transparency in land administration, indicating a strong positive perception. A notable proportion (10) think that e-governance services moderately enhance transparency, suggesting some room for improvement. The small number (3) who believe that e-governance services minimally enhance transparency highlights a minority view that may warrant further investigation to understand their concerns.

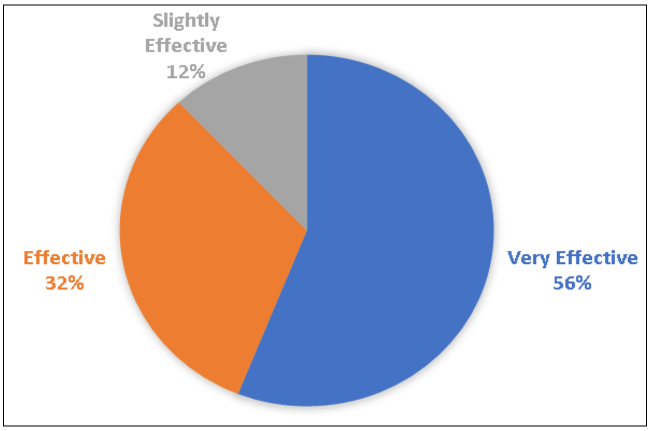


Fig 4.3.7: Effectiveness of e-governance on timeliness of land administration services

A majority of respondents (28) believe that e-governance services significantly enhance transparency in land administration, indicating a positive perception. However, a notable proportion (16) think that the impact is only moderate, suggesting that there may be some limitations or areas for improvement. The 6 respondents who believe that e-governance services have a minimal impact on transparency highlight a minority view that may warrant further investigation to understand their concerns.

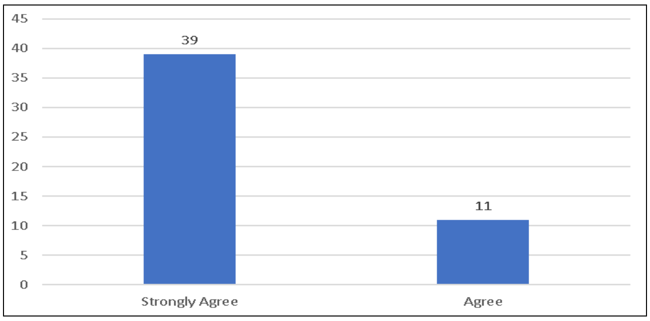


Fig 4.3.8: E-governance improve citizen trust in land administration

A significant majority of respondents (39) believe that e-governance services greatly enhance transparency in land administration, indicating a strong positive perception. The remaining respondents (11) think that e-governance services somewhat enhance transparency, suggesting that while there are benefits, there may also be some limitations or areas for improvement.

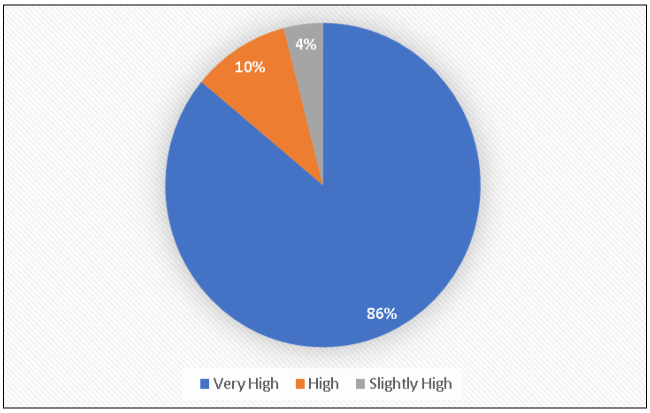
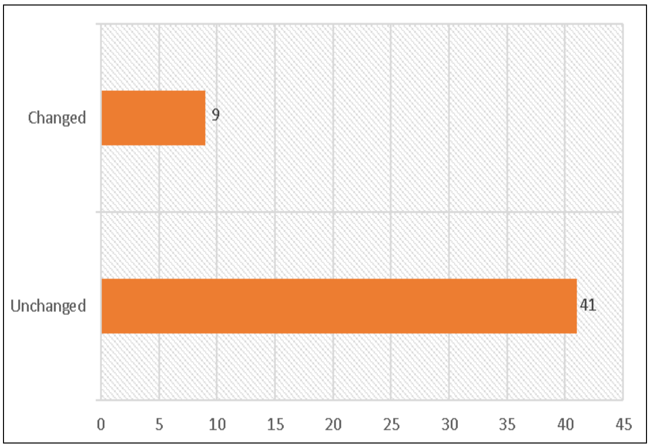


Fig 4.3.9: Success of e-governance in reducing land administration cost

A vast majority of respondents (43) believe that e-governance services enhance transparency in land administration to a very great extent, indicating an overwhelmingly positive perception. A small minority (5) think that e-governance services somewhat enhance transparency, suggesting some limitations or areas for improvement.

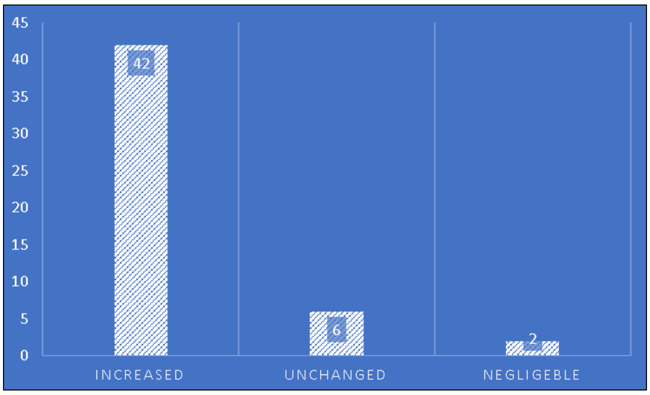
4.6 Presentation of results based on objective three: Impact of e-governance on service delivery, citizen engagement and public resources management



Source: Data 2024

Fig 4.4.1: Effects of e-gov on service delivery efficiency

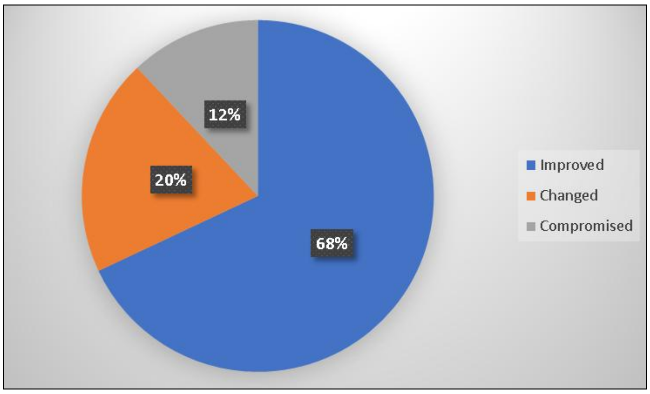
A significant majority of respondents (41) believe that e-governance has enhanced service delivery efficiency, indicating a strong positive impact. The remaining respondents (9) think that e-governance has had no impact on service delivery efficiency, suggesting that there may be some areas where e-governance has not yet made a significant difference.



Source: Data 2024

Fig 4.4.2: Effects of e-governance to citizen engagement in governance processes

A vast majority of respondents (42) believe that e-governance has increased citizen engagement in governance processes, indicating a strong positive impact. A small minority (6) think that e-governance has had no impact on citizen engagement, suggesting some limitations or areas for improvement. The negligible number (2) who believe that e-governance has had a negative impact highlights the overwhelming support for e-governance in enhancing citizen engagement.



Source: Data 2024

Fig 4.4.3: Effectiveness of e-governance on transparency

A significant majority of respondents (34) believe that e-governance has improved transparency, indicating a positive impact. However, a notable proportion (10) think that e-governance has had no impact on transparency, suggesting some limitations or areas for improvement.

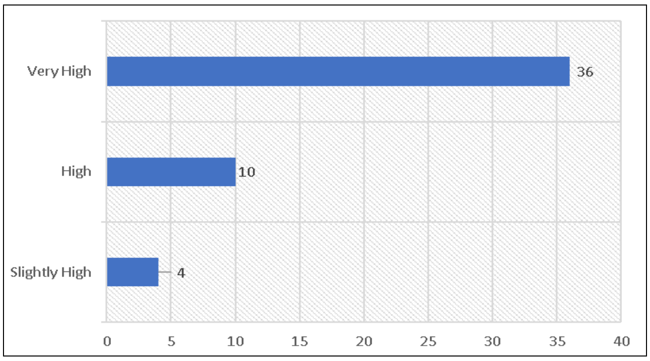


Fig 4.4.4: E-governance on citizen participation in decision making processes

A vast majority of respondents (45) believe that e-governance has empowered citizens to participate in decision-making processes, indicating a strong positive impact. In contrast, a negligible number of respondents (3) think that e-governance has had no impact on citizen participation, while 2 respondents feel excluded from the process.

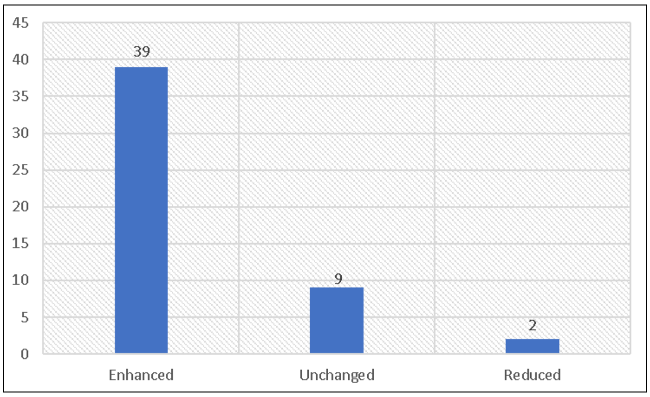


Fig 4.4.5: Quality of public services

A significant majority of respondents (39) believe that the quality of public service has been enhanced, indicating a strong positive perception. In contrast, a small minority (9) think that the quality of public service has remained unchanged, while a negligible number (2) believe it has been reduced.

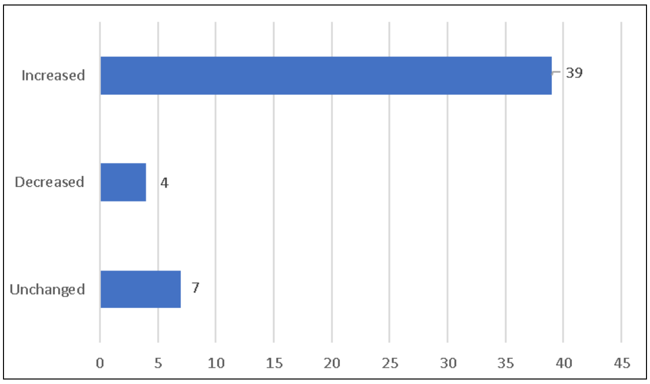


Fig 4.4.6: E-governance affect government accountability to citizen

A significant majority of respondents (39) believe that e-governance has increased governance accountability to citizens, indicating a strong positive impact. In contrast, a small minority (7) think that e-governance has had no impact on accountability, while 4 respondents believe it has actually decreased.

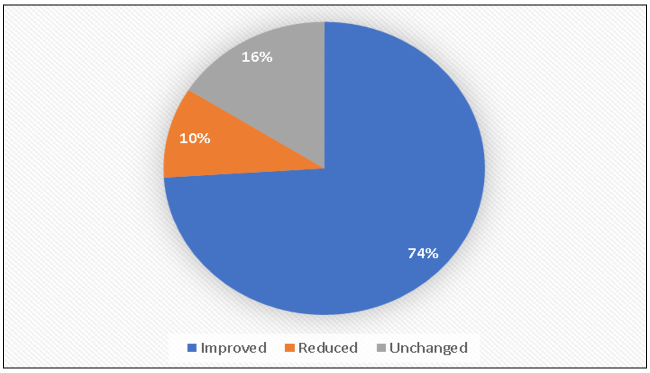


Fig 4.4.7: Effectiveness of e-gov public resources management efficiency

A significant majority of respondents (37) believe that e-governance has improved public resources management efficiency, indicating a strong positive impact. However, a notable minority (8) think that e-governance has had no impact, while 5 respondents believe it has actually reduced efficiency, highlighting potential challenges or implementation gaps.

4.7 Discussion of Research Findings

The data suggests that the majority of respondents (27) support the adoption and implementation of e-governance strategies at the Ministry of Lands. This is likely due to the potential benefits of e-governance, such as improved efficiency, transparency, and accountability. However, the fact that 15 respondents disagree and 8 are slightly agree indicates that there may be concerns or reservations about the implementation of e-governance strategies. The data also suggests that there may be a need for further education and awareness-raising about the benefits and challenges of e-governance strategies. The 8 respondents who are unsure may require more information or clarification about how e-governance strategies will be implemented and what benefits they can expect. By addressing these concerns and providing education and training, the Ministry of Lands can work towards successful adoption and implementation of e-governance strategies.

The data suggests that a significant majority of respondents (37) strongly agree with the adoption and implementation of e-governance strategies at the Ministry of Lands. This overwhelming support could be attributed to the potential benefits of e-governance, such as improved efficiency, transparency, and accountability. The fact that only 7 respondents are agree and 6 are slightly agree indicates that there is a relatively low level of uncertainty or ambivalence regarding the adoption of e-governance strategies. The factors influencing the adoption and implementation of e-governance strategies at the Ministry of Lands are multifaceted. Research has shown that performance expectancy, effort expectancy, social influence, and facilitating conditions are significant predictors of the adoption of e-government services. The data also highlights the need for further education and awareness-raising about the benefits and challenges of e-governance strategies. The 7 respondents who are agree and the 6 who are not agree may require more information or clarification about how e-governance strategies will be implemented and what benefits they can expect. By addressing these concerns and providing education and training, the Ministry of Lands can work towards successful adoption and implementation of e-governance strategies.

The data reveals a striking consensus, with 43 respondents strongly agree to the adoption and implementation of e-governance strategies at the Ministry of Lands. This overwhelming support suggests that the majority of respondents recognize the potential benefits of e-governance, such as enhanced transparency, efficiency, and accountability. The negligible number of slightly agreeing respondents (3) implies that opposition to e-governance strategies is minimal. The factors influencing the adoption and implementation of e-governance strategies at the Ministry of Lands are likely to be complex and multifaceted. Research has shown that technological, organizational, and environmental factors can all impact the success of e-governance initiativesThe small number of slightly agree respondents (4) suggests that there may be a limited need for further education or awareness-raising about the benefits and challenges of e-governance strategies. However, it is still essential to address the concerns of these undecided respondents and provide them with the necessary information to make informed decisions. By doing so, the Ministry of Lands can work towards achieving universal support for the adoption and implementation of e-governance strategies.

5. Conclusion and Recommendations

5.1 Conclusion

The study findings indicate that the Ministry of Lands has made significant progress in the adoption of e-governance services. The majority of the respondents reported utilizing key e-governance services, such as online information access, application, and payment. This suggests that the ministry has been successful in digitizing and making these core public services accessible through online platforms. The study also revealed that the utilization of the online feedback service remains relatively low among the respondents. This finding highlights an area that requires further attention from the Ministry of Lands. Enhancing citizen engagement and providing more opportunities for citizens to voice their concerns and feedback is crucial for improving the responsiveness and accountability of the e-governance system. The study identified the most influential factors in determining the accessibility of e-governance services to be ease of use, reliability, and responsiveness. All in all, the study findings indicate that the Ministry of Lands has made commendable progress in the implementation of e-governance services. However, to further enhance the adoption and accessibility of these services among the target population, the ministry should focus on improving the user experience, ensuring system reliability, and strengthening citizen engagement and feedback mechanisms.

5.2 Recommendations

Based on the study findings, the following recommendations are proposed to improve the delivery of e-governance services at the Ministry of Lands:

1. The Ministry of Land should prioritize the development of a comprehensive digital literacy program for its employees, to address the skills gap and enhance the effective adoption and implementation of e-governance strategies.
2. The Ministry of Land should conduct regular assessments and evaluations of its e-governance tools and services, and use the feedback to inform iterative improvements, ensuring that the tools and services remain user-centric, efficient, and effective in facilitating transparent and accountable land administration.
3. The Ministry of Land should leverage e-governance to implement a robust and integrated service delivery platform, enabling citizens to access land administration services online, track application status, and receive timely updates, thereby enhancing transparency, reducing processing times, and improving overall citizen satisfaction.

5.3 Acknowledgment

I would like to express my sincere gratitude to the Ministry of Lands for their support and cooperation in conducting this study. I am especially thankful to the Ministry's leadership and the e-governance team for their valuable insights and assistance throughout the research process. I would also like to acknowledge the contributions of the study participants – the citizens and stakeholders who took the time to provide their valuable feedback and experiences. Their input has been instrumental in shaping the findings and recommendations of this research. Finally, I extend my appreciation to the research team and the supporting staff who worked diligently to ensure the successful completion of this study. Their dedication and hard work have been crucial in delivering this comprehensive assessment of the Ministry of Lands' e-governance services.

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