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The Adoption of E-Government Systems in Public Sector Accounting: Case Study of Zimbabwe

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Abstract

This paper addresses the use of e-government tools in Zimbabwe's public sector accounting, highlighting how these systems enhance the efficiency, openness, and accountability of government financial management. Technologies for e-government can automate financial procedures, cut down on errors, and supply real-time data for well-informed decision-making. This essay addresses the use of e-government tools in Zimbabwe's public sector accounting, highlighting how these systems enhance the efficiency, openness, and accountability of government financial management. Financial procedures can be automated by e-government technologies, which can also lower errors and supply real-time data for defensible decision-making. Using a mixed-methods approach, the study collects secondary data from official publications and policy documents in addition to quantitative surveys and qualitative interviews with government officials, accountants, auditors, and IT specialists. The findings indicate noteworthy advancements in more expansive ministries, propelled by policies and programs designed to enhance openness and counteract malfeasance.

Smaller departments do, however, encounter difficulties that cause unequal adoption, such as tight funds, a lack of qualified staff, and antiquated IT equipment. Notwithstanding these obstacles, e-government programs have improved Zimbabwe's financial reporting accuracy, accountability, and audit trails. However, problems including system failures, reluctance to adapt, and insufficient training still make them less successful. To increase the use of e-government in public spaces, the report suggests more robust policy frameworks, focused investments in ICT infrastructure, capacity-building initiatives, and regular monitoring.

Keywords: E-government, public sector accounting, Zimbabwe, financial management, system adoption, transparency.

Introduction

Like many developing nations, Zimbabwe's public sector accounting has a number of difficulties, such as inefficient financial reporting, inadequate transparency, and a lack of accountability. These problems should be resolved by the introduction of e-government technologies, which offer digital platforms that facilitate real-time financial reporting, minimise human error, and streamline procedures. The adoption and integration of e-government systems in Zimbabwe's public sector accounting is examined in this paper, with a focus on implementation challenges as well as achievements.

Any government must have public sector accounting since it provides the framework for managing,

overseeing, and reporting on the use of public resources. It is essential for maintaining accountability, openness, and the effective use of resources, which builds public confidence in their governments.

However, inefficient, laborious, and opaque public sector accounting practices are common in developing nations, which can result in financial mismanagement and corruption (Bukenya & Kinatta, 2019). Many governments have started using e-government systems as a way to address these issues as part of international efforts to modernise public administration and enhance governance (World Bank, 2016).

The term "e-government" describes the application of information and communication technologies (ICTs) to boost internal operational efficiency, improve public administration transparency, and improve the delivery of government services (Heeks, 2018). E-government solutions, such Integrated Financial Management Information Systems (IFMIS), have become indispensable in the public sector accounting field for optimising financial operations, decreasing human errors, and guaranteeing accurate and timely financial reporting. These tools enable thorough auditing procedures, more transparent budgeting, and real-time tracking of government spending (Bwalya, 2016).

The government of Zimbabwe has started a number of e-government initiatives with the goal of updating public finance management systems. Implementing IFMIS is one such effort that aims to guarantee financial responsibility, improve service delivery, and manage public resources more effectively (Chigudu, 2019). Government departments can work more effectively and openly when many accounting tasks, such as budgeting, treasury management, procurement, and financial reporting, are combined into a single automated system through the use of IFMIS (Chigudu, 2019). Zimbabwe has faced considerable obstacles in completely implementing e-government systems in public sector accounting, notwithstanding these attempts. These difficulties include insufficient ICT infrastructure, a lack of funding, public employees' aversion to change, and a lack of technical know-how to run and maintain these systems (Chipwaza, 2020).

Numerous scholarly investigations have emphasised the significance of surmounting these obstacles to guarantee the triumphant deployment of e-government initiatives in emerging nations. For instance, Asogwa (2015) argues that a lack of infrastructure and technical capacity has delayed the complete adoption of e-government systems in many African countries. Mensah (2020) highlights how institutional and cultural elements influence how well e-government projects work. Although e-government system implementation has advanced somewhat in Zimbabwe, its effects on public sector accounting have been uneven, with certain departments outperforming others in terms of technological preparedness and resource accessibility (Mugari & Nhema, 2021).

The purpose of this study is to investigate how Zimbabwe's public sector accounting has used e-government technology. It attempts to evaluate the degree of adoption of these systems, the main forces behind their adoption, and the obstacles preventing their complete implementation. Along with offering suggestions for improving system adoption, the study will assess how e-government systems affect accountability, openness, and efficiency in the financial management of the public sector.

This study adds to the expanding body of research on the adoption of e-government in poor nations, where the deployment of such systems is frequently accompanied with opportunities and challenges, by concentrating on Zimbabwe. Understanding the factors that drive e-government adoption in public sector accounting is vital for guaranteeing the proper management of public resources and enhancing governance in emerging nations (Heeks, 2018).

Background to the Study

Accounting for the public sector is crucial to guaranteeing responsible use of public funds, openness, and

public servant accountability. Historically, manual accounting methods have been used by many developing nations, including Zimbabwe. These systems are frequently prone to mistakes, inefficiencies, and delays, which exacerbates problems like financial mismanagement and corruption (Kharusi & Murthy, 2017). E-government solutions, which use digital technology to automate and streamline financial management operations, are becoming increasingly popular in the public sector accounting industry as a response to these inefficiencies (Heeks, 2018).

The term "e-government" describes how public institutions employ information and communication technologies (ICTs) to improve the efficacy, efficiency, and transparency of government operations (World Bank, 2016). E-government systems, like enterprise resource planning (ERP) programs and integrated financial management information systems (IFMIS), enable governments to automate budgeting, spending control, revenue collection, and financial reporting procedures in the context of public sector accounting (Kassim, 2018). Systems promote total financial responsibility by minimising manual intervention, lowering errors, and producing real-time data for decision-making (Bwalya, 2016).

Like many other African countries, Zimbabwe has realised how important e-government technologies are to improving financial management and governance. The deployment of IFMIS is one of several e-government initiatives that the Zimbabwean government has launched in recent years. According to Chigudu (2019), the purpose of this system is to guarantee accurate and timely financial reporting, promote openness, and better manage public finances. The implementation of IFMIS in Zimbabwe, according to Mugari and Nhema (2021), has significantly improved the management of public finances by supplying real-time financial information that has improved resource allocation and decision-making.

Zimbabwe has made headway in implementing e-government technologies, but there are still several obstacles standing in the way of these systems' complete deployment and efficacy. These difficulties include a lack of technical know-how to administer and run these systems, a restricted ICT infrastructure, insufficient budgetary resources, and opposition to change among government workers (Chipwaza, 2020). Because of this, certain government agencies find it difficult to reap the complete benefits of e-government technologies, which results in inconsistent implementation and outcomes.

An increasing amount of research highlights how critical it is to overcome these obstacles in order to guarantee that e-government technologies are successfully adopted. Research conducted in various African nations, including Kenya and Ghana, has indicated that the appropriate implementation of e-government systems can yield substantial improvements to public sector accounting processes. These benefits include reduced corruption, increased transparency, and maintenance of fiscal discipline (Mugambi, 2018; Adjei-Bamfo et al., 2019).

According to Kassim (2018), the implementation of e-government technologies increases public trust since people are more inclined to believe in a responsible and transparent government. It is essential to look at the factors that encourage and hinder e-government adoption in the context of public sector accounting, given the possible advantages of e-government systems and Zimbabwe's difficulties in completely implementing them. To improve the overall management of public resources and the efficacy of e-government systems, solutions that take these variables into account must be developed.

Research Objectives

The objectives of this study are:

1. To assess the extent of e-government system adoption in Zimbabwe’s public sector accounting.
2. To identify the key drivers and challenges associated with e-government adoption.

3. To evaluate the impact of e-government systems on transparency, efficiency, and accountability in public sector accounting.
4. To provide recommendations for enhancing the adoption and effectiveness of e-government systems.

Research Questions

The following research questions guide this study:

1. What is the current level of e-government system adoption in Zimbabwe's public sector accounting?
2. What are the key drivers and barriers to e-government adoption?
3. How has the adoption of e-government systems impacted financial reporting, transparency, and decision-making in Zimbabwe?

What strategies can be employed to enhance the effectiveness of e-government systems in public sector accounting?

Scope of the Study

The study focusses on how Zimbabwe's public sector accounting framework is implementing e-government technology. This investigation covers a number of government ministries and departments that are in charge of public sector accounting and financial reporting from 2015 to the present. The study doesn't look into accounting techniques used by the private sector; it is exclusive to Zimbabwe's governmental sector.

Literature Review

Theoretical Review

This study's theoretical framework is based on institutional theory (DiMaggio & Powell, 1983) and innovation diffusion theory (Rogers, 1962). According to the innovation diffusion hypothesis, there are several steps involved in adopting new technologies, such e-government systems: awareness, interest, evaluation, trial, and adoption.

The innovation diffusion theory

1. **Key Stages**:

- **Awareness:** Although people or organisations may not be fully informed about an innovation, they are initially made aware of its presence. This could involve finding out about the accessibility of digital platforms or online government services in the case of e-government systems.
- **Interest:** People or organisations at this point show interest in the innovation and actively look for further details. Understanding the features, advantages, and technical specifications of the system may be necessary for e-government.
- **Evaluation:** Here, prospective users assess the innovation's benefits and drawbacks. They consider if it is cost-effective, whether it presents any risks, and how well it fits their demands. This phase may entail stakeholder consultation, evaluation of cost-benefit assessments, or examination of case studies of other organisations that have implemented e-government systems.
- **Trial:** To determine the innovation's suitability and feasibility, adopters may now conduct small-scale trials using it. Pilot programs are used by governments and other organisations to test new e-government technologies and assess their usability, effectiveness, and staff or public acceptance.
- **Adoption:** Lastly, the innovation is completely embraced and included into routine operations if the

trial is fruitful, and it turns out to be helpful. This could result in a broad adoption of digital platforms for e-government services such as public consultations, licence renewals, and tax filings.

Factors Influencing Adoption:

Everett Rogers' Diffusion of Innovations Theory is based on these five factors: Relative Advantage, Compatibility, Complexity, Trialability, and Observability (2003). They aid in the explanation of the success and rate at which organisations are adopting technology, particularly e-government initiatives. A more thorough explanation of each element and how it affects the adoption process may be found below:

Relative Advantage

The apparent advantages that a new invention or technology gives over preexisting methods or solutions are referred to as relative advantages. Users are more inclined to embrace an innovation if they believe it offers notable benefits, such as lower costs, more efficiency, or improved transparency. Public sector workers may view the benefits of e-government systems in terms of less paperwork, improved financial supervision, and expedited financial transaction processing. The adoption rate increases with perceived advantage. For instance, stakeholders will be more inclined to use e-government systems if they dramatically lower human errors in financial reporting (Tornatzky & Klein, 1982).

Compatibility

How effectively an invention fits in with an organization's current beliefs, procedures, culture, and requirements is referred to as compatibility. Adoption of innovations is higher when they align with the organization's objectives, infrastructure, and established workflows. Adoption is more likely in the public sector, for instance, if the e-government technologies mesh well with current accounting procedures or support government objectives of accountability and openness. Resistance might materialise, though, if the systems are perceived as disruptive or out of step with the organization's history or culture. Alignment with the current technical infrastructure is another aspect of compatibility; the less a company has to change its systems, the more likely it is to accept new technology.

Complexity

The apparent difficulty of comprehending and utilising the new technology is what is meant by complexity. Innovations that are easy to understand and apply tend to catch on faster. On the other hand, people may reject technology despite its possible advantages if they believe it to be overly complicated or challenging to master. In the public sector, where many employees do not have considerable technical competence, this element is very important. Adoption rates may be slowed, for instance, if people believe that using e-government services requires extensive IT skills and is therefore challenging. Reducing complexity through user-friendly interfaces and sufficient training can considerably boost the likelihood of adoption (Moore & Benbasat,1991).

Trialability

Trialability is the degree to which a new idea may be tested in a restricted setting before becoming widely adopted. Organisations are more inclined to accept a system if they can test it and see its advantages (and drawbacks) directly. This is so that stakeholders may evaluate how well the system fits their unique needs and context, which in turn decreases uncertainty. When it comes to e-government technology, departments

can feel more at ease committing to full adoption if they can observe how the system enhances financial reporting through a pilot program. This low risk experimenting capability can play a major role in hastening the adoption process.

Observability

The degree to which others can see the outcomes of utilising the invention is referred to as observability. The organisation may adopt the e-government system more widely if its advantages—such as increased financial transparency or quicker processing times—are clearly apparent to users and other departments. Effective system implementations in one ministry or department can act as a model or standard for others, proving the system's efficacy. Adoption is aided by the "seeing is believing" effect, which occurs when others witness observable increases in accountability and efficiency (Rogers, 2003).

Institutional Theory

According to institutional theory, external forces like laws and professional standards have a big impact on organisational development. These pressures also have an impact on government reforms like the introduction of e-government systems.

Key Concepts:

Isomorphism: Isomorphism: The progressive similarity that develops over time across organisations in related sectors. Isomorphism can occur through:

- **Coercive isomorphism:** Formal norms, regulations, or mandates compel organisations to incorporate innovations. Governments may mandate digitalisation for departments or agencies in the context of e-government to increase productivity and transparency.
- **Mimetic Isomorphism:** Entities may emulate other prosperous entities that have implemented specific advancements. Other governments may adopt e-government systems to reap the same benefits if a pioneering nation does so effectively.
- **Normative Isomorphism:** Innovation uptake may be influenced by training, education, and professional standards. For example, the use of e-government systems becomes institutionalised as more government workers receive training in digital technologies.

Application to E-Government:

Regulatory Frameworks: To comply with legal and regulatory requirements, organisations may be compelled by government policies and mandates to implement e-government systems.

Professional Standards: To guarantee effective service delivery and increased responsiveness, the development of best practices in public administration may promote the use of e-government systems.

Inter-Organizational Networks: Partnerships and relationships across government agencies can help to exchange resources and information, which in turn can help to advance e-government efforts.

Combining the Theories

Combining the Theories for E-Government Adoption

Our understanding of the adoption of e-government is expanded by the integration of Institutional Theory and IDT. Institutional Theory takes into consideration the external environment that has a major influence

on decisions made, whereas IDT illuminates the organisational and human decision-making process. For example:

Barriers:

- Despite organisations' awareness of the advantages of implementing an e-government system (IDT), opposition may arise from coercive factors such strict restrictions or insufficient money (Institutional Theory).
- Mimetic pressures to adopt a system too quickly may also aggravate cultural incompatibility inside the organisation (IDT), resulting in less-than-ideal deployment.

Facilitators:

- Despite internal resistance, organisations may be forced to accept new technology by coercive factors such as government requirements (Institutional Theory). Once the technology is in place, IDT's components, such as the relative benefit of the e-government system, may aid in justifying adoption.
- Professionals who encourage innovation may exert normative pressures that coincide with the system's (IDT) perceived advantages, creating an environment that is favourable to adoption.

Practical Implications for E-Government Implementation

The integration of both theories offers practical insights into improving e-government adoption. Policymakers and public managers can:

- Consider internal variables (from IDT) by making sure e-government systems are easy to use, work with existing procedures, and provide significant advantages to important stakeholders.
- Manage regulatory compliance, gain knowledge from peer institutions, and match e-government projects with wider societal and professional expectations to take external influences into consideration (according to Institutional Theory).

To provide a more seamless and effective deployment of e-government systems, it is therefore possible to identify and reduce barriers to adoption that arise from both internal and external sources by utilising both theoretical viewpoints. In summary, evaluating the adoption of e-government systems requires a knowledge of the interaction between institutional forces and the dissemination of innovation. These frameworks provide insightful information for researchers, practitioners, and policymakers interested in the use of technology in governmental settings. They emphasise the significance of both the internal decision-making processes of organisations and the external contexts in which they operate.

Empirical Review

The empirical study of the adoption of e-government in different countries, especially in Sub-Saharan Africa, reveals a heterogeneous environment influenced by elements including technological accessibility, resource availability, and capacity building. Current research conducted after 2015 highlights the continuous difficulties and advancements in this field.

Access to Technology: Unequal access to technology, especially internet connectivity, is one of the main obstacles to the adoption of e-government. As noted by Alzahrani and Goodwin (2019), there is still a significant problem with the digital divide because many regions of Sub-Saharan Africa have poor internet coverage. Citizens' access to online services is hampered by this, especially in rural locations. In a similar vein, Kaisara and Pather (2019) discovered that in nations such as Zimbabwe and Botswana, the deployment of e-government is severely impeded by infrastructural deficiencies, such as an unstable electrical supply and patchy mobile network coverage.

Resource Availability: Having access to material and financial resources is essential. Many governments in Sub-Saharan Africa do not have the fiscal resources needed to adopt complete e-government solutions, as noted by Ochara and Mawela (2015). This underfunding frequently results in underdeveloped platforms and disjointed systems that are unable to satisfy user needs. According to Mutula (2020), governments with limited financial resources face a major difficulty in maintaining and improving their IT infrastructure due to the associated costs.

Building Capacity: Another crucial element is the institutional and human capacity to oversee e-government initiatives. Addo, Brown, and Amankwah-Amoah (2017) contend that a significant barrier to the effective deployment of e-government services is the absence of information and communication technology (ICT)-trained staff in the public sector. They draw attention to the fact that even well-designed systems fall short of expected results in the absence of proper training and skill development. These worries are echoed by Mensah, Zeng, and Luo (2020), who highlight the necessity of efficient capacity-building initiatives for end users and technical staff to fully realise the advantages of e-government platforms.

Furthermore, organisational and political issues influence the adoption of e-government. Asongu and Nwachukwu (2016) point out that the advancement of e-government projects depends critically on leadership commitment and governance structures. They contend that, in comparison to nations with poor governance systems, those with stronger institutional frameworks and political will are better positioned to take use of e-government as a development instrument.

Sub-Saharan Africa

Although Sub-Saharan Africa has made great progress in implementing e-government systems, there are still many obstacles to overcome. Asogwa (2015) and Mensah (2020) are two studies that highlight the obstacles that several countries in the region face to successful implementation. These hurdles include:

- **Limited access to technology:** Due to inadequate internet connectivity in many Sub-Saharan African regions, it is challenging for both citizens and government organisations to fully utilise e-government platforms.
- **High implementation costs:** For many governments with tight budgets, the up-front expenses for hardware, software, and training are unaffordable.
- **Skilled workforce shortage:** It is common to find a dearth of people possessing the technical know-how required to successfully develop, implement, and oversee e-government initiatives. This restricts these systems' ability to function and their long-term viability.

Zimbabwe's E-Government Projects

Zimbabwe has carried out several e-government projects with the goal of enhancing public sector service delivery and governance. The Integrated Financial Management Information System (IFMIS), intended to enhance fiscal management and modernise accounting in the public sector, has been one of the major initiatives.

- **Achievements:** The implementation of IFMIS and other e-government systems has improved public finance management in a few areas, including higher reporting accuracy and fewer manual errors. Effective system adoption by government organisations is reported to have increased financial process efficiency and transparency (Chigudu, 2019).
- **Difficulties:** Nevertheless, development hasn't been consistent in all areas. Due to financial limitations that restrict the scope and size of implementation, as well as infrastructure flaws (such as irregular

internet connections and variable electrical supplies), several government departments find it difficult to implement these systems. The country-wide impact of this discrepancy has been uneven.

Kenya's Success Story

A different example is provided by Kenya, where e-government initiatives have had greater success, especially in terms of improving budgetary restraint and openness in public financial management. Kenya's government implemented initiatives like the Huduma Kenya program and the Integrated Financial Management Information System (IFMIS) to centralise government services and increase civilian accessibility via digital channels.

- **Better Fiscal Discipline:** According to Mbaka (2018), Kenya's implementation of IFMIS has enhanced budget management, decreased corruption, and streamlined procurement procedures. The system makes it possible to track public monies in real time, which improves accountability.
- **Transparency Gains:** The Kenyan government has reduced bureaucratic inefficiencies and enhanced public faith in government procedures by digitising public services and enhancing accessibility and openness. To improve the user experience, for example, the Huduma centres offer citizens one-stop shopping where they may access a variety of services.

Mixed Outcomes in Zimbabwe

According to research by Mugari and Nhema (2021), Zimbabwe's implementation of e-government technologies has produced a variety of results for various government entities. While some agencies have claimed notable advancements in areas such as financial management and accounting procedures, others have not kept up for a variety of reasons.

- Resource Limitations: The inadequate funding of numerous government entities in Zimbabwe hinders their ability to successfully implement new technologies. One major obstacle has been the lack of access to the required software, hardware, and training.
- Infrastructure Gaps: The widespread implementation of e-government systems is impeded by the unequal distribution of infrastructure throughout the nation, particularly in rural areas. It's tough for many agencies to continue using the systems consistently without steady internet or electricity.

In summary, while e-government adoption has clearly benefited nations like Kenya, Zimbabwe's experience highlights the challenges that many Sub-Saharan African countries face because of limited resources—financially, infrastructurally, and human resources. These elements still play a role in the region's inconsistent e-government system adoption and efficacy.

Methodology

In academic literature, the mixed-methods approach is often seen as a comprehensive technique for investigating complex phenomena such as the adoption and implementation of e-government systems. This approach includes both qualitative and quantitative research methodologies. This methodology helps researchers to investigate multiple perspectives, triangulate data, and generate a more comprehensive understanding of the topic matter. The justification for employing a mixed-methods approach is discussed below, along with an analysis of its application in related e-government research, specifically pertaining to public sector adoption.

Rationale for Mixed-Methods Approach

Mixed-methods research, as stated by Creswell and Plano Clark (2017), allows for the blending of qualitative insights with quantitative rigor, offering depth and breadth to a study. This method is particularly helpful for investigating complex systems that contain both technological and human (social, behavioural) components, like the adoption of e-government. As an illustration, quantitative techniques (surveys, statistical analyses) are useful for measuring attitudes, generalising findings, and gauging the extent of e-government system acceptance.

Qualitative techniques (thematic analysis, interviews) provide a greater knowledge of the attitudes, driving forces, and obstacles that stakeholders face when implementing such systems.

By utilising both, researchers can gain insight into the how and why (qualitative data) of e-government deployment in addition to the what (quantitative data).

Survey Data Collection

Surveys are a popular method in e-government research because they may gather information from many stakeholders and measure important factors. Including stakeholders in the public sector of Zimbabwe, such as auditors, accountants, and IT specialists, guarantees a diversity of viewpoints regarding the ways in which various functional sectors communicate with e-government systems. Studies, such as those by Shareef et al. (2011), have employed similar methodologies, emphasizing the necessity to collect the viewpoints of a broad spectrum of users to enable a full understanding of adoption difficulties and opportunities.

Surveys typically assess:

- Perceived ease of use and usefulness (key constructs in Technology Acceptance Models, Davis 1989).
- Stakeholder satisfaction with system functionalities and outcomes.
- Barriers to adoption, such as lack of resources or technical infrastructure (Zhou, 2012).

Quantitative data from surveys can then be statistically analysed to determine correlations, trends, and general levels of adoption across the public sector.

In-Depth Interviews for Qualitative Insights

By delving into the complex experiences of those engaged in the deployment of e-government, in-depth interviews offer insightful qualitative information. Interviews, in contrast to surveys, enable the investigation of intricate decision-making processes, institutional constraints, and personal perspectives, according to Yin (2018). Government representatives in charge of e-government projects in Zimbabwe provide important insights into:

- The difficulties encountered during implementation, such as financial limitations, change resistance, and bureaucratic roadblocks.
- The influence of outside forces, such as requirements from donors or global best practices.
- The level of institutional support—or lack thereof—that affects how well these initiatives work (Ndou, 2004).

Analysing qualitative information from interviews is a popular use of theme analysis. Researchers can classify replies and make links between recurrent topics by using this strategy, which entails finding, analysing, and reporting patterns or themes within the data (Braun & Clarke, 2006). Deeper understanding of the factors influencing the adoption of e-government is possible thanks to thematic analysis, which makes sure that the rich, subjective data from interviews is methodically arranged.

Secondary Data Sources

Findings from primary data can be triangulated with secondary data from sources including policy documents, government reports, and scholarly journals in e-government research. The wider context offered by these sources validates the findings of surveys and interviews. Prior studies, like the one conducted by Heeks (2002), highlight the significance of secondary data in comprehending national e-government projects by contrasting real implementations with declared goals, regulations, and standards. By using secondary data, the study not only bases its conclusions in existing literature but also provides a comparison lens to examine Zimbabwe's e-government progress in respect to worldwide trends and standards.

Quantitative and Qualitative Data Analysis

When analysing data that is both quantitative and qualitative, methodical attention to detail is necessary. This study measures levels of adoption, identifies trends, and tests hypotheses (e.g., correlations between IT competency and system use) using quantitative data (from surveys) analysed statistically.

Thematic analysis is applied to qualitative data (interviews) to gain a deeper understanding of the institutional and individual obstacles to and enablers of e-government adoption.

Mixed-methods research, according to Creswell and Plano Clark (2017), provides a contrasting viewpoint in which qualitative insights aid in the explanation of quantitative findings. This is particularly helpful in research on e-government, where quantitative data may show a sluggish adoption rate, but interviews uncover root problems like insufficient infrastructure or cultural opposition (Al-Shafi & Weerakkody, 2010).

This study's mixed-methods methodology guarantees a thorough examination of the use of e-government systems in Zimbabwe's public sector. In-depth interviews provide qualitative insights that complement quantitative data from surveys, allowing the study to capture the underlying reasons that influence the adoption of e-government as well as the measurable outcomes. This method offers a comprehensive understanding of the intersections of technology, policy, and human behaviour in public sector innovation, and it is modelled after successful approaches in related fields.

Results Presentation and Discussions

Significant progress has been made in Zimbabwe's e-government adoption, according to recent research. This is especially true for larger ministries with greater access to financing and technological infrastructure. The deployment of several e-government systems, such as online passport applications, e-taxation, and public financial management systems, has been largely facilitated by the E-Government Framework and Strategy (2011-2015). These systems are in line with comparable advancements in other African nations in that they seek to increase transparency, decrease corruption, and improve service delivery. The primary driver behind these initiatives has been the aim to decrease corruption and enhance transparency. In the Registrar General's Office, for example, digitisation has decreased transaction costs and waiting times, which were previously rife with corruption and inefficiency Nonetheless, issues including some government offices' antiquated digital infrastructures and a shortage of trained ICT staff continue to exist . These results are consistent with other studies conducted in the area, which shows that larger institutions may adopt these systems more successfully since they have access to greater resources. Despite this, smaller departments have faced many challenges that have impeded their adoption of e-government technologies, namely lack funds and infrastructure. Studies looking at comparable obstacles

in developing nations have shown that these difficulties are not specific to Zimbabwe (Mawela, Ochara & Twinomurinzi, 2017). The respondents also mentioned staff reluctance to change, which is a well-known obstacle to the adoption of technology, particularly when staff members feel unprepared or believe the technology threatens their jobs (Chigona, Lekwane, Westcott & Chigona, 2010).

The increase in accountability and openness brought about by e-government technologies in Zimbabwe has been one of their most significant effects. Better financial reporting, fewer manual errors, and improved data accuracy have resulted from the implementation of these systems—benefits that Sibanda and Makwata (2017) also highlighted in their assessment of public sector reforms. But enduring issues like system outages and poor user training continue to be major roadblocks to achieving the full potential of these systems. Technical assistance and training are essential for the effective deployment of e-government systems, as Mutswanga and Chirenda (2012) have previously stated, yet they are frequently underfunded or mismanaged.

Conclusion

Transparency, efficiency, and accountability might be greatly increased in Zimbabwe's public sector accounting by implementing e-government solutions. Larger ministries with easier access to resources have made significant progress in this area (Sibanda & Makwata, 2017). Significant obstacles still exist, nevertheless, mainly in the form of restricted infrastructure and the requirement for smaller departments to increase their capacity. The effectiveness of e-government initiatives depends on tackling these problems through enhanced technology infrastructure and training activities, as suggested by Mutswanga and Chirenda (2012). Overcoming these obstacles and achieving the full potential of e-government systems would depend on the government's dedication to digital transformation as well as strategic investments in technology and skill development (Chirisa, Dumba & Mukura, 2014).

Recommendations

Infrastructure Development

A strong ICT infrastructure is essential for the adoption and smooth functioning of e-government technologies. Widespread e-government deployment in Zimbabwe has been hampered by the infrastructural gap between larger ministries and smaller departments (Mutswanga & Chirenda, 2012). Prioritising investments in data centres, broadband networks, and cybersecurity guidelines will help the government guarantee that all departments, no matter how big or small, have dependable, secure access to e-government services. Additionally, by improving internet accessibility in underprivileged and rural areas, decentralised offices will be able to make efficient use of these systems, thereby fostering equitable access to public services nationwide.

Capacity Building

Despite their technological advancements, e-government services are only as successful as the people who use them. Employee reluctance to change and a lack of technical skills have been cited as major issues facing Zimbabwe's public sector (Sibanda & Makwata, 2017). The government should step up its training initiatives to address this, emphasising change management as well as technical expertise to lower resistance and improve user experience. To guarantee that IT specialists, accountants, auditors, and administrative staff are all competent in using the e-government tools pertinent to their responsibilities, training should be customised for the various positions. Programs for retraining and ongoing professional development will assist staff in staying current with emerging technologies.

Policy Support

Stronger policy frameworks are required to guarantee the uniform and required use of e-government technologies across all ministries and departments, even though Zimbabwe has made progress in its digital transformation (Chirisa, Dumba & Mukura, 2014). This entails putting in place regulations that clearly define the parameters for system integration, interoperability, and data management. Policies should also link the usage of e-government technologies to public sector reforms and performance reviews to encourage compliance. When staff members and the public begin to trust the security and efficacy of the system, a legal and regulatory framework that safeguards data privacy and guarantees accountability will help promote a wider adoption of the technology.

Monitoring and Evaluation

Regular monitoring, auditing, and performance evaluations are necessary for e-government systems to be successful in the long run in order to evaluate their effectiveness and effect on public sector efficiency (Mawela, Ochara & Twinomurinzi, 2017). Creating an impartial organisation to audit system performance will aid in locating bottlenecks like user-related problems or system outages. It is recommended to incorporate ongoing feedback mechanisms in order to gather user experiences and make adjustments in real time to enhance usability. Periodic reviews will also guarantee that any new problems, such cybersecurity risks, are quickly resolved and that the systems are in line with government goals, like increasing openness and decreasing corruption.

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