BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF BANKING AND FINANCE

INFLUENCE OF ELECTRONIC TRANSACTIONS ON ZESA'S PERFORMANCE AMID DIGITAL PAYMENT ADOPTION.

Submitted by [B201163B]

In Partial Fulfilment of the Requirements of the Bachelor of Commerce Honours Degree in Banking and Finance.

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Bindura, Zimbabwe

APPROVAL FORM

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ii

DEDICATION

This project report is dedicated to my parents Mr. and Mrs. Chishiri, sisters and a brother, friends and my fellow colleagues for the great support, patience and inspiration during the study.

ABSTRACT

This study aimed to evaluate the impact of electronic transactions on the performance of the Zimbabwe Electricity Supply Authority (ZESA) in the Mrewa region. The research focused on assessing the influence of digital payment platforms on key performance indicators, including revenue collection, bill payment timeliness, and customer satisfaction. A Likert-scale questionnaire survey was conducted with ZESA customers in the Mrewa area to gather data on their experiences and perceptions regarding the use of electronic transactions. The findings indicate that the adoption of digital payment methods has had a generally positive impact on ZESA's performance in the region. Respondents reported improvements in revenue collection, with more customers making timely bill payments, as well as an increase in overall customer satisfaction levels. However, the study also identified several significant barriers that are hindering the wider adoption of electronic transactions among ZESA customers in Mrewa. These barriers include the lack of access to digital devices, unreliable internet connectivity, perceived complexity of digital payment platforms, security and privacy concerns, and the overall lack of digital literacy. To address these challenges and leverage the benefits of electronic transactions, the study recommends that ZESA should: 1) improve digital inclusion and accessibility, 2) enhance the userfriendliness of digital payment platforms, 3) strengthen cybersecurity and data privacy measures, 4) deliver comprehensive digital literacy programs, and 5) continuously monitor and evaluate the performance of electronic transactions.

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Table of Contents

List Of Tables

List of Figures

List of appendices

CHAPTER ONE

INTRODUCTION

1.1 Background of The Study

Electronic payments for electricity play a crucial role in advancing financial inclusion by mitigating barriers related to accessibility and affordability. Primarily, they empower individuals in remote or underserved areas, such as Murewa, to engage with the formal financial system, diminishing their dependence on cash transactions while granting access to essential banking services. Furthermore, electronic payments present a cost-effective solution by eliminating the necessity for physical infrastructure like traditional bank branches, thereby enhancing financial service affordability for both consumers and providers.

As defined by the Expert Group on Defining and Measuring E-commerce (2000). The sale or purchase of goods or services through computer networks is referred to as an electronic transaction, and it can involve transactions between businesses/homeowners/public authorities/other public or private entities. The Information and Communications Act was enacted to address some of the challenges raised in the National ICT Policy Document. A central part of the Central Bank of Zimbabwe's guidelines focuses on electronic issues. In this section, the guidelines legally recognize electronic documents, recognize electronic messages as valid for the conclusion of contracts, and support the use of electronic documents and electronic signatures in government agencies and its subsidiaries. By including electronic transactions in this uniform law, the government aptly acknowledges the technological convergence that has occurred in the digital world (IOC, 2011).

The primary advantages of electronic transactions stem from their efficient and effective utilisation. Employing electronic transactions allows companies to enhance their efficiency and competitiveness. By fostering increased collaboration and partnerships with relevant stakeholders, expediting financial transactions, and facilitating more dynamic and transparent processes, electronic transactions can accelerate the flow of products and services (Liang and Lu, 2010). With the growing demand for electricity and the escalating pressure to enhance efficiency, energy service companies are seeking partnerships to collectively improve efficiency and punctual company performance. For instance, Kenya Power has collaborated with Mobile Network operators, technology companies like IBM, and banking institutions to develop multiple products that leverage electronic transactions. Some of these products include the EasyPay system, which enables customers to conveniently pay bills through agents located throughout the country (Kenya Power, 2014). A similar case exists in Zimbabwe, ZESA has forged partnerships with mobile telephone operators and banks to purchase electricity. Electricity is bought through ECOCASH , Mobile bank and debit card.

Research conducted by Mwai (2013) has revealed that Kenya Power and Lighting Company (KPLC) has comprehensively adopted ICT systems in all its business operations. Literature highlights various technologies employed by KPLC, including e-procurement, remote CCTV surveillance, power outage detection, emergency operation and monitoring, online bill querying and payment history access, record management and payments, processing of loans, leave, petty cash, advances, and accounting processes. The continued investment in ICT has primarily aimed to enhance operational efficiency and competence. On a similar note ZESA is seem to be following in the footsteps of KPLC for effectiveness. ZESA similar to KPLC (2006) underscores that Information Communication Technology (ICT) Services continue to support the business by maintaining and enhancing efficiency in billing, revenue collection, customer care, supply chain management, power systems operations, and maintenance. ICT has played a crucial role in the development and implementation of the E-bill facility and has led to other innovations, allowing customers to make bill payments via mobile telephony and through selected supermarket partners.

The ongoing enhancement of the ICT infrastructure represents a key organisational strategy aimed at bolstering customer service and satisfaction (KPLC, 2007).

1.2 Statement of the problem

Despite the increasing use of electronic transactions, some customers of ZESA still struggle to make payments on time due to a lack of knowledge about electronic transactions and lack of access to digital payments. The frustration ensuing from the down time of the digital payments platform across all mobile networks and banking systems normally experienced during the peak where electricity consumers try to top-up their electricity credit. It is within these perennial challenges that adds to the throb to investigate how this maybe affecting ZESA's overall performance and ability to satisfy its customer base in the Murewa region.

1.3 Primary objective

The research seeks to investigate the Influence of electronic transactions on ZESA's performance amid digital payment adoption in Murewa.

1.3.1 Secondary objectives

- To evaluate the impact of electronic transactions on ZESA's performance, including factors such as revenue collection, bill payments timeliness and customer satisfaction.
- To identify the main barriers to the adoption of digital payment by ZESA customers
- To evaluate the effectiveness of existing initiatives to improve the use of electronic transactions in the energy sector.

1.4 Research Questions

- How has the adoption of electronic transactions affected ZESA's performance in Murewa?
- What are the advantages and disadvantages of using electronic transactions in the context of ZESA in Murewa?

1.5 Statement of the hypothesis

It is hypothesized that the use of electronic transactions by customers of ZESA is positively correlated with performance of ZESA Murewa.

1.6 Significance of the study

1.6.1 To the student

The research was done in partial fulfillment of the Bachelor of Banking and Finance. This research enabled the researcher with opportunity to apply research skills and knowledge taught in the degree program currently being pursued in real life situations. This will enhance the researcher's capacity to conceive a research investigation within an organization to improve problem-solving skills through research.

1.6.2 To the university

Electronic transactions and digital payment are a broad area of study; hence, this is an opportunity for other scholars who might be interested about digital payment. The research will provide some literature for further research to other scholars. While research will help to close gap in knowledge, it will also create suggestive further academic work to be pursued by other scholars contributing to theory.

1.6.3 To ZESA

The research will enable the ZESA to also see challenges faced by Murewa citizens caused by digital payments and electronic transactions. The research will also help them to see how to tackle the challenges.

1.7 Assumptions of the study

The study is underpinned by several key assumptions.

1.7.1. The accuracy and reliability of the data collected from various sources, including company records. It further presupposes that the heads of departments interviewed possess a comprehensive understanding of electronic transaction practices and their impact on performance within Zimbabwe Electricity Supply Authority (ZESA).

- The study operates on the assumption that respondents provided unbiased and impartial responses during the interviews, without any intention to misrepresent facts or manipulate the study's outcomes.
- It is also assumed that all data provided by the respondents will be treated with confidentiality and used solely for research purposes, with the identities of the respondents remaining undisclosed.

1.8 Delimitation of the study

The study was delimited to the geographical scope of Murewa District within the operational jurisdiction of the Zimbabwe Electricity Supply Authority (ZESA). This geographical limitation is essential to maintain a focused investigation specifically within the context of ZESA's operations and the dynamics of electronic transactions in Murewa District. Consequently, the findings and conclusions of the study will primarily apply to this specific geographic area and may not be directly generalizable to other regions or districts outside the defined scope of Murewa District.

1.9 Limitations

Confidentiality- The service provider was not able to disclose vital information. To solve this problem researcher explained fully to the service provider the importance of the research and how the findings will be of significance in the attainment of their mission statement and goals.

Limited resources-The researcher required financial resources and substantial amounts of travelling, printing among other things and these activities was strained due to the economic situation of Zimbabwe. To tackle this problem the researcher sourced out funds from family members and friends and also looked for cheap alternatives.

1.10 Definition of key terms

1.10.1 Electronic transactions

It is an exchange of data between two or more parties through electronic means, resulting in a legally binding contract (Merkin, 2017).It is also a contract for the exchange of goods, services, or information that is entered into by using electronic

communication, where the final terms of the agreement are committed to a computer readable medium (Barnes, 2014).Electronic transaction is a transaction in which the product being bought or sold, the method of payment, or both, are conveyed by electronic means (Patterson, 2011).Lastly it is a transaction that uses computers and/or communications networks, but not necessarily the internet, to create, modify, perform, or terminate a contract (Froomkin, 2001)

1.10.2 Digital Payment

Digital payment is a payment that uses digital technology to facilitate a financial transaction (Buckley & Arner, 2018). Digital payments can take many forms, including mobile payments, online payments, and contactless payments. The use of digital payments has grown rapidly in recent years, driven by the widespread adoption of smartphones and other digital devices (Buckley & Arner, 2018). According to (Gruner, 2017)A digital payment is a transfer of value using digital or electronic means of exchange that is facilitated by the Internet.

1.10.3 Organizational performance

Organizational performance includes three specific areas of business results: financial performance (profits, return on equity (ROA), return on invested capital (ROI), product market performance (sales, market share), and shareholder return (total shareholder return and cash value).Functional performance is part of organizational performance measures that show the realization of functional goals in different functions of the value chain, which can lead to the subsequent performance of the organization (Kaplan & Norton, 2000). The Balanced Scorecard is the most popular tool for measuring organizational performance. It measures monitoring activities from four key perspectives to provide a more balanced assessment of organization and performance. These perspectives include financial perspective, internal process, innovation and growth perspective and customer perspective (Kaplan & Norton, 2000)

1.11 Chapter Summary

This chapter provides an overview of the research study and the context in which it was conducted, highlighting the growing importance of electronic transactions in the utility sector, as digital payment platforms offer the potential to enhance revenue collection, improve operational efficiency, and increase customer satisfaction. The chapter concludes by outlining the overall structure and organization of the research study, providing a roadmap for the subsequent chapters.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The adoption of digital payment systems has gained significant momentum worldwide, including in developing countries like Zimbabwe. This chapter aims to explore the impact of digital payment adoption on the performance of the Zimbabwe Electricity Supply Authority (ZESA) in Murewa. By examining relevant studies on the subject, this review will provide insights into the potential benefits and challenges associated with electronic transactions for ZESA and its customers (Umar, 2019). The researcher will review literature on the definition of terms, types.

2.2 Theoretical Literature

2.2.1 Technology Acceptance Model

Fred Davies introduced the Technology Acceptance Model (TAM) in 1989. The model is usable in anticipating the adoption of technology by users in an organizational context. Davies (1989) state that most companies adopt modern technology to face changes in the external environment to meet the changing needs of customers. The importance of adapting to a changing environment by responding to internal and external changes is highlighted by Davis et al, (2023) when discussing the technology acceptance model. This model utilizes perceptions as the foundation for determining how and where users should use technology, with an emphasis on their attitudes and perception of what is and is not actually used.

Britton & McGonegal (2007) indicate that perception is the degree to which a person believes that using a particular system will improve performance. Most users' perceptions of technology are characterized by ease of use, which is explained by the extent to which a person believes that using a certain system would improve efficiency and effectiveness.

According to Davies (1989), the Technology Acceptance Model (TAM), suggests that attitude is a key component in the use of technology or service. The importance of this theory is to explain how the user adopts information technology and its use in the organizational context. Acceptance is the first process of using technology and has a double meaning. First, acceptance is a precedent of adoption, and therefore this theory completes previous theories. Second, acceptance dictates user attitudes and perceptions, which ultimately affect usage performance and thus effectiveness.

Strategic implementation and efficiency of operations, and thus productivity of systems, is a function of technology acceptance. Thus, it is plausible to conclude that without acceptance, other theories would be redundant and invalid. Although acceptance is an initial stage, it is also an attitudinal aspect that affects adoption and effectiveness of use (Liang and Lu, 2010).

2.2.2 Diffusion of innovation theory

Rodgers (1962) proposed that the diffusion of invention is a theory that endeavors to clarify the mechanisms and rates by which new ideas and technology can be transmitted between cultures. Comparative advantage, compatibility, complexity, testability, and traceability are the key factors that determine innovation adoption general level, as noted by (Rodgers, 1962).

The degree to which an innovation is perceived as more advantageous than its predecessor is referred to as relative advantage. Lee (2021) asserts that it elevates efficiency, financial gain, and social standing. Research conducted previously has consistently demonstrated a positive correlation between the relative advantages of innovations and their adoption rates. When a user sees a relative advantage or utility of a new technology compared to an old one, he tends to adopt it. Immediate, convenient, and customers have observed low-cost benefits in the adoption of ICT. Thus, it is hypothesized that when customers see clear benefits offered by ICT, they are more likely to adopt it (Roberts & Amit, 2003). Comparability is defined as the degree to which a given service aligns with the user's existing values, beliefs, habits, and experiences (Vargo et al, 2020). Compatibility is an important characteristic of innovation because responding to the user's lifestyle can promote rapid adoption. According to Vargo et al (2020), the visibility of innovations is

determined by their ability or unwillingness to be disregarded by the social system and the ease of public recognition. Moore & Benbasat (2005) simplified the original construct by redefining observation into two constructs visibility of results and demonstrability. Ram & Sheth (1989) initially defined trialability as the ability to test a new technology before implementing it. Potential adopters who can try the innovation will feel more comfortable and more likely to adopt it.

2.2.3 Financial Inclusion theory

The World Bank, (2014) defined financial inclusion as a state where all individuals and businesses have access to useful and affordable financial products and services that meet their needs, delivered in a responsible and sustainable way. The World Bank has argued that financial inclusion is an important goal for reducing poverty and increasing economic opportunity. It has also argued that financial inclusion can have a number of other benefits, such as reducing corruption and improving financial literacy. In addition, the World Bank has worked to develop financial inclusion initiatives in a number of countries around the world.

One of the key aspects of the World Bank's definition of financial inclusion is the idea that financial services should be useful and affordable for all people. This means that financial services should not only be accessible, but also provide value to the people who use them. Additionally, the World Bank's definition emphasizes financial services should be delivered in a responsible and sustainable way. This means that financial institutions should operate in a way that is ethical and does not cause harm to consumers or the environment. The financial inclusion can lead to improved social outcomes (Duflo et al, 2006). In particular, Duflo et al (2006) have argued that financial inclusion can lead to improved health outcomes, as people who have access to financial services are better able to pay for medical treatment. Ozili (2020) has also argued that financial inclusion can lead to improved education outcomes, as it allows people to pay for school fees and other educational expenses.

2.3 Empirical Literature

A study Meru (2011) investigated the challenges faced in the implementation of a mobilebased transaction system strategy by Kenya Power Company Limited. This study used a case study design, which was selected based on the nature of the participants. The study revealed some key findings, which included barriers such as delays in the implementation of the plans, carrier disruptions, and delays in transaction completion, network problems, customer burden, low customer purchase, last minute payment speed, and high volume of transactions. Costs, damage to the Kenya Power Company Limited brand, change management problems, decentralized decision-making processes, poor service implementation and ineffective customer communication methods.

Bildey (2013) investigated the impact of electronic transaction technologies on the performance of German service companies in a ten-year study. The results showed a positive relationship indicating that the adoption of e-commerce technologies led to better performance among German service companies. Scott (2008) further investigated the role of e-commerce as a means of increasing efficiency in American manufacturing companies. The study used a cross-sectional survey method, where data were collected using a semistructured questionnaire. According to the findings, manufacturing companies experience a reduction in their operating costs due to electronic transactions.

In a study conducted by Juma (2013), it was found that the role of electronic transaction services in customer service delivery in the Bungoma District banking sector had been examined. Using a descriptive research design, primary data were collected through semistructured questionnaires. The sample size was 174 respondents. The analysis used content analysis techniques and concluded that the introduction of electronic banking led to improved services and reduced costs.

In research carried out by Sikandar et al (2019) examined the effects of the use of the digital payment system on SME's performance in developing countries, more specifically, in Ghana. The findings of the work proposed that the use of a digital payment system has a significant effect on SME's performance with a 0.676 coefficient. This scholarship

recommended that use of digital payment system enable SME's operating in countries to compete globally, satisfy customers, and make stronger the relationship between suppliers, customers, trade partners, and government. Moreover, this article assists the SME's owners and executive to increase the use of digital payment systems in the future in order to further improve the relationship with stakeholders. Besides, the proposed model allows the executive and managers to comprehend the importance of the use of the digital payment system in the country.

2.4 Conceptual Framework

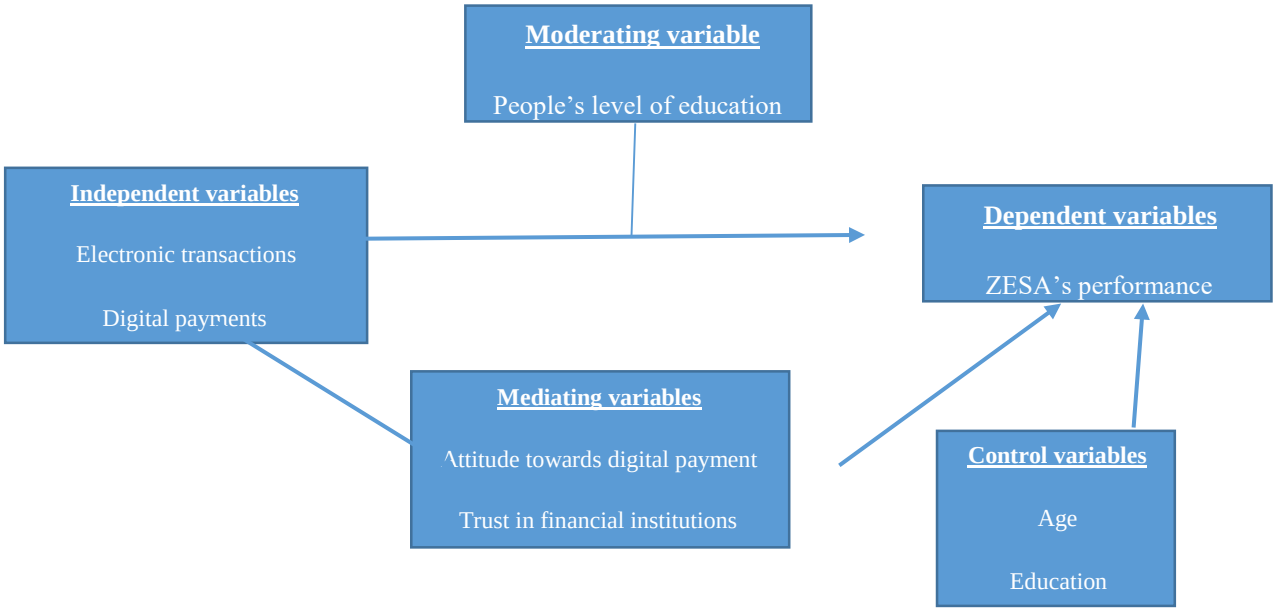

Figure 1:Conceptual framework

2.4.1 DFS Model

Digital financial services (DFS) are financial services, which rely on digital technologies for their delivery and use by consumers. Devoto & Loboguerrero (2017) argue that DFS models need to take into account three key elements: financial capability, agent networks, and consumer protection. They argue that financial capability is important because it allows people to use digital payments in a way that is safe, secure, and beneficial to them. Agent networks are important because they can help to reach a large number of people, especially those who may not have access to traditional financial services and consumer protection is

important to ensure that people are not taken advantage of or harmed when using digital payments. According to Rahman & Rahman (2023), financial capability is a key element of DFS models because it allows people to make informed decisions about using digital payments. It involves having the necessary knowledge, skills, and confidence to make decisions about financial products and services. For example, people need to know how to use digital payment platforms safely and securely, how to make payments, and how to avoid scams and fraud. Financial capability can also help people to manage their money more effectively and to plan for the future.

Financial capability is important because it can empower people to use digital payments in a way that improves their lives. It can also help to address the issue of financial exclusion, which is when people are unable to access traditional financial services such as banks. By increasing financial capability, DFS models can help to make sure that everyone has access to the financial services they need.

Agent networks part of DFS Model. Agent networks are important because they can reach people who might not have access to traditional financial services. Agents are often people who live in the same communities as the people they serve, and they can provide support and guidance in using digital payments. They can also help to build trust and confidence in the system (Florencia Devoto, 2017). One way to strengthen the role of agents in DFS models is by ensuring that they are adequately trained and supported. Agents need to have a good understanding of the digital payment system and the products and services that are available. They also need to be able to communicate effectively with their customers and to provide them with the information they need. In addition, agents should be remunerated fairly for their work and should have access to ongoing support and training.

Devoto & Loboguerrero (2017) point out that consumer protection is particularly important in developing countries, where many people may be using digital payments for the first time. They suggest that consumer protection should be integrated into the design of the DFS system from the start, rather than being added on as an afterthought. This means considering how to make the system accessible, safe, and fair for all users. There is a clear

link between consumer protection and digital payment adoption. If consumers feel that their rights are being protected, they are more likely to trust the system and to use it regularly. This is particularly important in developing countries, where trust is often a key factor in determining whether or not people will use digital payments. In addition, a strong consumer protection framework can help to prevent fraud and other risks that could deter people from using digital payments (Pazarbasioglu et al, 2020).

Tapscott (2016) argues that the DFS model needs to be built on a foundation of trust. He suggests that blockchain technology can play a key role in this, by providing a transparent, tamper-proof record of transactions. This can help to increase trust in the system and encourage people to use it. In addition, he argues that the DFS model should be designed with a focus on the user experience, to make it easy and intuitive to use. Don J. Tapscott (2016) also argues that the DFS model should be designed with the goal of financial inclusion. Financial inclusion refers to the idea that everyone should have access to basic financial services, regardless of their income level or location. This is important because it can help to reduce poverty and inequality. In order to achieve financial inclusion, the DFS model should be accessible to people with low incomes, people in rural areas, and other groups that have traditionally been excluded from the formal financial system.

2.4.2 Impact of DFS Model on Digital payment and electronic transactions

Interoperability highlights the importance of this aspect of the DFS model. The report argues that interoperability is essential for achieving financial inclusion, as it allows people to use different payment systems without having to switch from one system to another. It also suggests that interoperability can increase competition in the market, leading to lower fees and better services for users. The report provides a number of case studies of countries that have successfully implemented interoperable DFS models (Rajesh Dalmia and Tim Williams, 2018). The DFS model is closely linked to electronic transactions and digital payment adoption. In fact, the DFS model is designed to facilitate electronic transactions and encourage the adoption of digital payments. It does this by providing a framework for the development of financial products and services that are accessible, easy to use, and

secure. This makes it more likely that people will choose to use digital payments instead of cash or other traditional payment methods.

2.5 Research Gap

The key research gap that this study aims to address is the lack of empirical evidence on the impact of electronic transactions on the performance of utility companies, particularly in semi-rural regions with unique infrastructure and customer demographic challenges. The study focuses specifically on the Mrewa region, which is described as a semi-rural area with unique challenges in terms of digital infrastructure and customer demographics. This suggests that the impact of electronic transactions in this particular context may differ from more urban or well-connected regions. The study also aims to identify the key barriers and challenges hindering the wider adoption of electronic transactions among ZESA customers in Mrewa. This suggests that the factors influencing the uptake of digital payment methods in this region may differ from other contexts, warranting dedicated research attention. By addressing this research gap, the study can provide valuable insights and recommendations that can guide ZESA and other utility companies in effectively leveraging electronic transactions to improve their performance, especially in semi-rural or underserved areas with unique infrastructure and customer characteristics.

2.6 Chapter Summary

This chapter discussed academic literature related to the research topic. It examined the findings of studies across the globe establishing a comprehensive understanding of the role and impact of electronic transactions in the utility sector, drawing insights from relevant academic literature and industry research. The review examines the potential benefits of digital payment platforms. It also explores the key barriers and challenges inhibiting the wider adoption of electronic transactions. By synthesizing the existing knowledge, the literature review provides a theoretical foundation to contextualize the empirical investigation of electronic transactions in the specific setting of ZESA's operations in the Mrewa region. The following chapter presents the research methodology and the characteristics of the target population.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the methods of research used to achieve these goals. It encompasses research design, topic, research instruments, and data collection procedures.

3.1 Research Design

The researcher used a mixed-methods research design combining quantitative and qualitative methods to examine the adoption digital payment and electronic transactions on ZESA's performance. The quantitative part of the research consists of survey questionnaires that focus on evaluating the adoption of digital payment and usage patterns and the perception of their usefulness. The qualitative part of the study included interviews with ZESA staff to ascertain the impact of electronic transactions on ZESA's performance. By using a mixed method design, this study can provide a comprehensive and holistic assessment of digital payment adoption. Quantitative data can provide a broad overview and provide statistical analysis. In contrast, qualitative data can provide nuanced insights and a deeper understanding of the impact of electronic transactions on ZESA amid adoption of digital payments.

3.2.1 Population

Primary data was collected from ZESA employees in Murewa. Interviews with residents of both rural and urban customers of ZESA were done. This helped to get an insight on the influence of electronic transactions on ZESA's performance. The table below indicates the target population.

Table 3.1 population

CATEGORY	TARGET POPULATION
Rural Consumers	75
Urban Consumers	175
Totals	**250**

3.2.2 Sampling

Creswell (2014) suggests purposefully identifying participants that might provide insight into your research question. Purposive sampling involves selecting participants because you believe that they might contribute something to your analysis. The research issued out questionnaire to customers at ZESA in Murewa so that they issue out their responses as it was helpful to see whether there was payment adoption in Murewa.

Purposive sampling required 10 – 15 members of the homogenous group of customers for the research survey. The researcher targeted niche demographics to obtain specific data points. Purposive sampling saved time and helped the research to get accurate information about electronic transactions and digital payment adoption. This sampling method is often used in case studies as it allows the researcher to select participants who can provide the most relevant information for his or her study.

To add to that the researcher used snowball sampling also known as chain sampling which is a technique whereby an initial group of research participants are asked to identify others who they think are suitable to take part in the research. Neale (2006) notes that that this technique can be useful for identifying participants who might be difficult to reach through other methods such as random sampling.

However also highlighted some of the challenges associated with snowball sampling such as bias and the lack of representativeness of the sample

3.3 Research instruments

The researcher used a combination of questionnaire, surveys and document analysis.

3.3.1 Document analysis

Bowen & Coombs (2014) opines that document analysis is a process of exploring the content and meaning of documents and using the analysis to inform research and practice. It was explained that documents can be analyzed for both their content and their context. Additionally, Bowen & Coombs (2014), noted that documents can be analyzed using a variety of methods including coding, classification and thematic analysis.

The researcher faced initial challenges on document analysis as head of departments could not disclose some of the documents since that will be confidential information. The researcher managed to analyze financial statements.

3.4 Data collection procedure

Scarpa (2020) says that primary data is collected first-hand and raw data obtained from the environment. Primitive data is advantageous because it focuses on particular research topics. Research tools, such as questionnaire guides, are utilized to answer open-ended questions asked by the researcher

The researcher analyzed newspaper published and available income statements for 2022-2023 and managed to see the revenue for that period since there was increased use of electronic transactions. The researcher also managed to go through the balance sheet for that period.

The researcher managed to interact with the revenue officer. Managed to see the bank statements from ECOBANK, CBZ and BANCABC. The researcher managed to see if there was digital payment adoption in Murewa by looking at the transactions done through these banks. These were banks that the researcher managed to look at as samples to represent electronic transactions.

3.5 Data Analysis

The influence of electronic transactions on ZESA's financial performance was examined in this study, with a focus on revenue, expenses, and profitability. SPSS was used to analyze the data, including descriptive statistics, correlation analysis, and regression analysis. The

results indicated that there was a significant relationship between electronic transactions and financial performance, with a positive correlation between the two variables. In addition, the results showed that electronic transactions had a significant positive effect on financial performance.

3.6 Summary

The researcher used mixed-method research design to get information necessary to answer the research question. She managed to do interviews and surveys so as document analysis. There was also collection of firsthand information and second-hand information from document analysis. It was a bit challenging since some staff members fail to give information since it was confidential. The next chapter presents discussion on the implication of the findings obtained in the data analysis.

CHAPTER FOUR
FINDINGS AND ANALYSIS

4.0 Introduction

In this chapter, we present the findings and analysis of the data collected on the impact of the adoption of digital payment platforms by ZESA in Murewa. The data analysis aimed to uncover insights related to adoption rates, transaction volumes, changes in electricity consumption, revenue growth, customer satisfaction levels, and cost and efficiency. The research findings presented in this chapter contribute to a comprehensive understanding of the impact of digital payment adoption on ZESA and its customers.

4.1 Response rate

The table below shows the distribution of the respondents who participated in the survey. Out of a target population of ZESA customers 250 only 136 respondents participated in the survey. This is attributed to the influence of factors like target audience's unwillingness and reluctance, lack of incentivization and the mode of survey administration (Singer & Bossarte, 2006).

Table 4.2 Response rate

CATEGORY	TARGET POPULATION	ACTUAL PARTICIPANTS	RESPONSE RATE
Rural Consumers	75	22	29.3%
Urban Consumers	175	114	65.1%
Totals	**250**	**136**	**54.4%**

4.2 Demographic characteristics of the respondents

4.2.1. Age

Participants spanned across various age groups, including young adults (aged 18-25), working professionals (aged 26-40), middle-aged individuals (aged 41-60), and senior

citizens (above 60). Shams et al.(2020), asserts that this age diversity allowed for an exploration of the impact of digital payment adoption across different generation cohorts. Table 4.2 shows the age distribution of the consumers.

Table 4.3 Age

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 25 yrs	23	16.9	16.9	16.9
	25 - 40 yrs	54	39.7	39.7	56.6
	41 - 60 yrs	50	36.8	36.8	93.4
	over 60 yrs	9	6.6	6.6	100.0
Total		136	100.0		

The sample included participants across different age groups. Approximately 15.2% of the participants were young adults (aged 18-25), 40% were working professionals (aged 2640), 36.7% were middle-aged individuals (aged 41-60), and 6.7% were senior citizens (above 60). This age distribution ensured representation across generational cohorts.

4.2.2. Gender

Both male and female participants were included in the study to ensure gender balance and to capture any potential differences or similarities in the adoption of digital payment platforms. This allowed for a comprehensive understanding of gender-related factors influencing adoption and usage patterns as postulated by Acilar & Sæbø (2023). To ensure adequate gender representation, the sample included an equal representation of both males and females. Approximately 55% of the participants were male, and the remaining 45% were female.

Table 4.4 Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	61	45.0	45.0	45.0
	Female	75	55.0	55.0	100.0
	Total	136	100.0	100.0	

4.2.3. Income Level

Participants were recruited from various income brackets, including low-income, middleincome, and high-income households. The purpose was to explore whether income disparities or financial constraints played a role in the adoption and usage of digital payment platforms by ZESA customers (Malufu & Brown, 2021).

Table 4.5: Income level

Income Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	under US$200	50	37.0	37.0	37.0
	Medium Income= US$201 - US$600	58	43.0	43.0	80.0
	High Income = over US$600	28	20.0	20.0	100.0
	Total	136	100.0	100.0	

The sample included participants from various income brackets. Approximately 37% of the participants belonged to low-income households, 42% belonged to middle-income households, and 21% belonged to high-income households. This provided a diverse representation of income levels within the sample.

4.2.4. Old Manual Payment Method Experiences

Participants included individuals who had previously used traditional payment methods, such as cash or manual transactions, as well as those who had already adopted digital payment platforms. This allowed for comparisons between the two groups and an understanding of the drivers and barriers to adoption. Table 4.6

Experience with Manual Bill Payments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	82	60.0	60.0	60.0
	No	54	40.0	40.0	100.0
	Total	136	100.0	100.0	

4.3 Adoption Rates

Table 4.7 adoption rates

To what degree does the perceived complexity and difficulty of using digital payment platforms hinder ZESA customers in Murewa from adopting them?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	59	43.3	43.3	43.3
	Minor	36	26.4	26.4	69.7
	Moderate	36	26.4	26.4	96.1
	Significant	5	3.9	3.9	100.0
	Total	136	100.0	100.0	

The analysis revealed that the adoption rate of digital payment platforms among ZESA customers in Murewa has covered all commercial and residential household with the exception of state entities (Mazikana, 2023). The data indicated a consistent upward trend,

with an average adoption rate of 92% by December 2023 as reported in the annual ZETDC report of November 2023. When asked of their perspective of the complexity and difficulty of using digital payment platform hinderance, 96.1% of the Murewa Zesa consumers indicated moderate to no difficulties and complexities with the adoption of the digital payment platforms. This suggests a growing acceptance and preference for digital payment methods among ZESA customers.

4.4 Presentation of findings

4.4.1 The Impact of electronic transactions on the performance of ZESA in relation to revenue collection, timeous bill payments and customer satisfaction.

Table 4.8 Usage of the Electronic payment platform

Prepaid Electronic Platform Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	under 3 years	54	40.0	40.0	40.0
	3 – 5 years	36	26.5	26.5	66.5
	over 5 years	46	33.5	33.5	100.0
	Total	136.	100	100.0	

New users with under 3 years of using the electronic payment system accounted for 40% (54) of the participants The data analysis indicated a significant increase in transaction volumes associated with the adoption of digital payment platforms. Over the past year, digital transactions accounted for approximately 35% of all payments made to ZESA in Murewa (ZETDC Annual Report,2023). This surge in transaction volumes reflects the

convenience and efficiency offered by digital payment methods. Table 4.6 shown earlier above is also indicative of this assertion.

Consumer feedback from the survey indicate that the majority are fully utilizing the digital payment platforms and they have allocated applicable budgets to cater for paying for their lighting. The data obtained from ZESA consumer payments imply a surge in transactions towards each end of the month as well as the first week of the month.

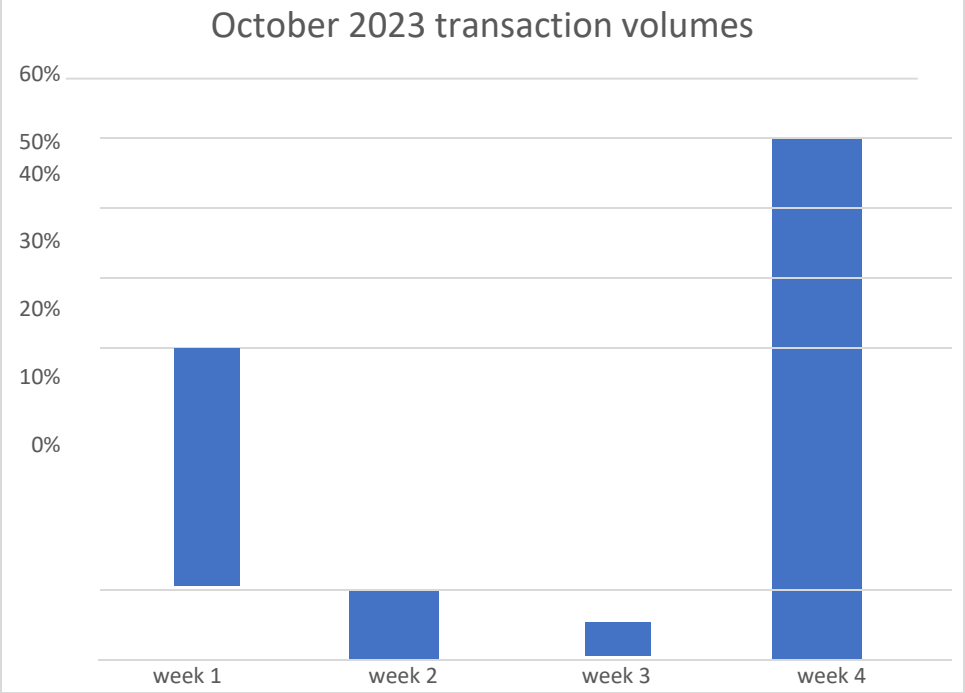

Figure 4.2:October 2023 transactions volume

Volumes of purchases of electricity tokens per week in the month of October 2023 (Source: ZESA Self Service Admin Portal 2023)

Table 4.9 Descriptive statistics of the Impact of digital payment platforms on ZESA's performance

Descriptive Statistics

		To what extent have electronic transactions improved ZESA's revenue collection in the Murewa area?	How would you rate the impact of electronic transactions on the timeliness of ZESA bill payments by customers in Murewa?	In your opinion, to what degree have electronic transactions enhanced ZESA's customer satisfaction levels in the Murewa region?	How would you assess the impact of electronic transactions on ZESA's operational efficiency and cost savings in the Murewa area?	Overall, how would you evaluate the net impact of electronic transactions on ZESA's performance and service delivery in the Murewa region?
N	Valid	136	136	136	136	136
Mean		4.0333	4.1667	4.1667	3.3000	3.7667
Median		4.0000	4.0000	4.0000	3.0000	4.0000
Mode		4.00	4.00	4.00	3.00	4.00

The mode of 4.00 was obtained on 4 of the questions which seek insights on the impact of the digital payment platforms on ZESA's revenue collection, payment of bills and customer satisfaction. However, a mode of 3.00 was obtained on the impact of digital payments platform on cost savings implying mixed feelings by the participants. A participant (number

37) praised the electronic payment system saying, "this *new system is very convenient for me, I can easily monitor my expenditure on electricity*." Overall, service delivery, revenue collection, customer satisfaction and timely bill payments were positively influenced by the use oof digital payment platform.

4.4.2 Changes in Electricity Consumption

An examination of electricity consumption patterns before and after the adoption of digital payment platforms showcased interesting findings. While the initial notion suggested a possible link between digital payment adoption and changes in consumption behavior, the data analysis indicated no statistically significant difference in electricity consumption patterns. This suggests that the adoption of digital payment platforms by ZESA customers in Murewa does not have a direct impact on electricity consumption. The consumers' responses in the survey indicated that the load shedding is not reflective of their credit in ZESA tokens. One respondent wrote in the questionnaire,

"*ZESA should stop switching off our lights as we have paid for our electricity.*"
This implies that the consumer would want to use his / her prepaid electricity credit until it is exhausted without power cuts.

4.4.3 Revenue Growth

The analysis demonstrated a positive correlation between the adoption of digital payment platforms and revenue growth for ZESA. A Section Manager interviewed in the billing office proffered that an average increase in revenue of 12% annually is being realized since the introduction of digital payment options. This suggests that the convenience and ease of digital payments have contributed to improved revenue generation for ZESA in Murewa. Consumers who participated in the survey showed through a larger percentage response that this innovation has enhanced revenue collection. Half of the participants, 50% indicated that they perceive the electronic payment system as slightly improving the revenue collection while 26.7% admitted that electronic payment platforms have significantly improved revenue collection.

Table 4.10 Impact of Electronic transactions on revenue collection

To what extent have electronic transactions improved ZESA's revenue collection in the Murewa area?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No impact on revenue collection	32	23.3	23.3	23.3
	Slightly improved revenue collection	68	50.0	50.0	73.3
	Significantly improved revenue collection	36	26.7	26.7	100.0
Total		136	100.0		

4.4.4 Customer Satisfaction Levels

Customer satisfaction levels were assessed through feedback surveys and ratings. The analysis showed high overall satisfaction levels among ZESA customers who had adopted digital payment platforms. Customers appreciated the convenience, speed, and transparency of digital payment methods. However, some concerns were raised regarding occasional technical glitches and the need for improved customer support in troubleshooting payment-related issues. The fig 4.3 is a graph indicating the prepaid token issues that were and were not successfully resolved during the month of April 2024. As indicated in table 4.8, the descriptive statistics of the impact of digital payment platforms on ZESA's performance specifically on customer satisfaction indicated a median of 4.00 which implies that the participants were satisfied with the service delivery of ZESA through the usage of the electronic platform.

Table 4.11 Frequencies on customer satisfaction levels

In your opinion, to what degree have electronic transactions enhanced ZESA's customer satisfaction levels in the Murewa region?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No impact on customer satisfaction	27	20.0	20.0	20.0
	Slightly increased customer satisfaction	59	43.3	43.3	63.3
	Significantly increased customer satisfaction	50	36.7	36.7	100.0
Total		136	100.0		

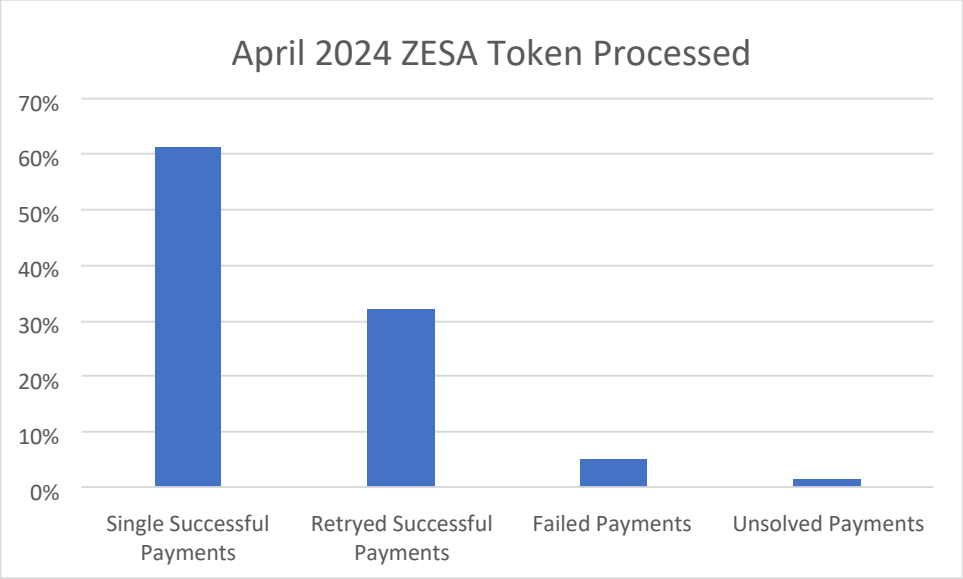

Figure 4.3:April 2023 ZESA tokens processed

Source: ZESA prepaid electricity token issues schedules for the month of April 2024

4.4.5 Cost and Efficiency Analysis

Table 4.12 Analysis of the cost efficiency of the ZESA digital payments platform

How would you assess the impact of electronic transactions on ZESA's operational efficiency and cost savings in the Murewa area?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly decreased efficiency and increased costs	18	13.3	13.3	13.3
	No impact on efficiency or costs	64	46.7	46.7	60.0
	Slightly improved efficiency and reduced costs	50	36.7	36.7	96.7
	Significantly improved efficiency and reduced costs	4	3.3	3.3	100.0
	Total	136	100.0	100.0	

The analysis revealed a marginal improvement in cost and efficiency associated with digital payment platforms. Transaction costs were minimally lower compared to traditional payment methods, resulting in small cost savings for both ZESA and customers. Moreover, the processing times for digital payments were found to be much faster, reducing administrative burdens and improving overall operational efficiency. Interviewee 39 had this to say, *"imagine I save transport costs by just using my mobile phone to top-up my ZESA credit while using EcoCash to buy my electricity token."* These savings are also translatable to the ZESA office, they also save on consumables, time and personnel who are supposed to be serving these consumers in the banking hall. The banking hall at the site had already been transformed into 2 more offices owing to the digital and innovation brought by the payment's platform.

4.4.6 barriers hindering adoption of ZESA digital payments platform

The key barriers to the adoption of digital payment platforms by ZESA customers in Murewa appear to be the lack of access to digital devices, unreliable internet connectivity, perceived complexity of digital payment interfaces, security and privacy concerns, and the overall lack of digital literacy in the region. Addressing these multifaceted challenges will be crucial for ZESA to successfully promote the use of electronic payment methods among its customers.

Table 4.13 Descriptive statistics on the barriers to adoption of the electronic transaction platforms

Statistics

		To what extent is the lack of access to smartphones or other digital devices a barrier to ZESA customers in Murewa adopting electronic payments	How problematic is the unreliable internet connectivity and network coverage in Murewa for ZESA customers trying to use digital payment options?	To what degree does the perceived complexity and difficulty of using digital payment platforms hinder ZESA customers in Murewa from adopting them?	How concerned are ZESA customers in Murewa about the security and privacy risks associated with digital payments?	Overall, how would you rate the impact of the lack of digital literacy and familiarity with electronic payment methods on ZESA customers' adoption in the Murewa region?
N	Valid	136	136	136	136	136
Mean		4.2333	2.7667	1.9000	1.6667	3.1667
Median		4.0000	3.0000	2.0000	1.0000	3.0000
Mode		4.00	2.00	1.00	1.00	3.00

Lack of Access to Digital Devices

Table 4.14 Frequencies of the impediment of lack of digital devices' impact on adoption of ZESA electronic transactions platforms

To what extent is the lack of access to smartphones or other digital devices a barrier to ZESA customers in Murewa adopting electronic payments

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Moderate	18	13.3	13.3	13.3
	Significant	68	50.0	50.0	63.3
	Major	50	36.7	36.7	100.0
	Total	136	100.0	100.0	

The questionnaire results indicate that the lack of access to smartphones, computers, or other digital devices is a significant barrier for ZESA customers in Murewa when it comes to adopting electronic payment methods. A large majority of respondents (over 60%) rated this as a "major" or "significant" barrier, highlighting the need to improve digital inclusion and accessibility in the region.

Unreliable Internet Connectivity

Table 4.15

How problematic is the unreliable internet connectivity and network coverage in Murewa for ZESA customers trying to use digital payment options?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly	64	46.7	46.7	46.7
	Moderately	41	30.0	30.0	76.7
	Very	31	23.3	23.3	100.0
Total		136	100.0		

Poor internet connectivity and network coverage in the Murewa area emerged as a major hindrance to the use of digital payment options for ZESA bills. Around 53.3% of respondents rated the unreliable connectivity as "very" or "moderately" problematic, while 46.7% believed it was slightly problematic, underscoring the critical importance of improving telecommunication infrastructure in the region.

Perceived Complexity of Digital Payments

Table 4.16

To what degree does the perceived complexity and difficulty of using digital payment platforms hinder ZESA customers in Murewa from adopting them?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	59	43.3	43.3	43.3
	Minor	36	26.7	26.7	70.0
	Moderate	36	26.7	26.7	96.7
	Significant	5	3.3	3.3	100.0
	Total	136	100.0	100.0	

The questionnaire responses suggest that the complexity and perceived difficulty of using digital payment platforms is a not barrier for many ZESA customers in Murewa. Close to 30% of respondents indicated that the complexity of these platforms is a "moderate" or "significant" hindrance to their adoption. This points to the need for more user-friendly and intuitive digital payment interfaces tailored to the local context.

Security and Privacy Concerns

Table 4.17

How concerned are ZESA customers in Murewa about the security and privacy risks associated with digital payments?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	72	53.3	53.3	53.3
	Slightly	36	26.7	26.7	80.0
	Moderately	28	20.0	20.0	100.0
	Total	136	100.0	100.0	

ZESA customers in Murewa expressed satisfactory concerns about the security and privacy risks associated with digital payments. Over 46.7% of respondents reported being "slightly" or "moderately" concerned about these issues, highlighting the importance of addressing cybersecurity vulnerabilities and building trust in the digital payment ecosystem.

Lack of Digital Literacy

Table 4.18

Overall, how would you rate the impact of the lack of digital literacy and familiarity with electronic payment methods on ZESA customers' adoption in the Murewa region?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Minor	23	16.7	16.7	16.7
	Moderate	68	50.0	50.0	66.7
	Significant	45	33.3	33.3	100.0
	Total	136	100.0	100.0	

The questionnaire findings suggest that the lack of digital literacy and familiarity with electronic payment methods is a major barrier to the adoption of digital payments among ZESA customers in the Murewa region. Approximately 83.3% of respondents rated the impact of this factor as "moderate" or "significant", indicating the need for comprehensive digital skills training and awareness campaigns.

4.5 Chapter Summary

The findings of the data analysis highlighted the positive impact of digital payment platform adoption by ZESA customers in Murewa. The adoption rates and transaction volumes have shown steady growth, leading to increased revenue for ZESA. Customer satisfaction levels were high, although some improvements in technical support were identified. The cost and efficiency analysis revealed significant benefits in terms of reduced transaction costs and faster processing times. Implementing the recommendations outlined will further enhance the impact and effectiveness of digital payment platforms for ZESA in Murewa.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0. Introduction

The Chapter 4 focused on data presentation, data analysis, and discussion of findings. Chapter 5 primarily contains a summary of the study's findings, conclusions, and recommendations on the influence of electronic transactions on ZESA's performance metrics, including revenue collection, bill payment timeliness, and customer satisfaction, in the Murewa region. This final chapter discusses the study's contribution to the body of knowledge as well as recommendations for future research.

5.1. Summary of findings

The findings indicate that the adoption of digital payment platforms has had a generally positive impact on ZESA's performance in the region. Respondents reported improvements in revenue collection, with more customers making timely bill payments. Additionally, the survey results suggest an increase in overall customer satisfaction levels associated with ZESA's service delivery. However, the study also identified several significant barriers that are hindering the wider adoption of electronic transactions among ZESA customers in Murewa. The study comprised 250 ZESA clients from Murewa urban and rural communities. 136 people completed the survey, yielding an overall response rate of 54.4%. The study used a varied sample, as evidenced by the distribution of respondents based on gender, age and education level.

5.1.1 The influence of electronic transactions on ZESA's performance amid digital payment adoption

The study's findings indicate that there is a statistically significant correlation between mean scores above 3.0000 and median scores that are mostly higher than 4.0000. The average marks for every question were 3.0000 and 4.0000. Respondents overwhelmingly agreed, as seen by all frequency indicators, that electronic transactions influenced ZESA's performance amid digital payment adoption. The findings suggest that while electronic transactions hold immense potential to improve ZESA's performance, concerted efforts are needed to address the underlying barriers and create an enabling environment for the widespread adoption of digital payment methods in the Murewa region. The barriers include:

- Lack of access to digital devices, such as smartphones and computers, limiting the ability of customers to utilize digital payment methods.
- Unreliable internet connectivity and poor network coverage in the region, making it challenging for customers to access and use electronic payment platforms.
- Perceived complexity of the digital payment interfaces, deterring customers from adopting these platforms due to the perceived difficulty of use.
- Security and privacy concerns among ZESA customers, who are apprehensive about the risks associated with electronic transactions and the protection of their personal and financial data.
- Lack of digital literacy and familiarity with electronic payment methods, as many customers in the Murewa area lack the necessary knowledge and skills to engage with digital platforms.

5.1.2. The Impact of electronic transactions on the performance of ZESA in relation to revenue collection, timeous bill payments and customer satisfaction.

The mode of 4.00 was obtained on 4 of the questions which seek insights on the impact of the digital payment platforms on ZESA’s revenue collection, payment of bills and customer satisfaction. However, a mode of 3.00 was obtained on the impact of digital payments

platform on cost savings implying mixed feelings by the participants. Overall, service delivery, revenue collection, customer satisfaction and timely bill payments were positively influenced by the use oof digital payment platform.

- Changes in Electricity Consumption

This suggests that the adoption of digital payment platforms by ZESA customers in Murewa does not have a direct impact on electricity consumption. The consumers' responses in the survey indicated that the load shedding is not reflective of their credit in ZESA tokens.

- Revenue Growth

The convenience and ease of digital payments have contributed to improved revenue generation for ZESA in Murewa. Consumers who participated in the survey showed through a larger percentage response that this innovation has enhanced revenue collection. Half of the participants, 50% indicated that they perceive the electronic payment system as slightly improving the revenue collection while 26.7% admitted that electronic payment platforms have significantly improved revenue collection.

- Customer Satisfaction Levels

The descriptive statistics of the impact of digital payment platforms on ZESA's performance specifically on customer satisfaction indicated a median of 4.00 which implies that the participants were satisfied with the service delivery of ZESA through the usage of the electronic platform.

5.1.3 Consumer Perceptions of the Impact of Electronic Transactions on ZESA's Performance

When the relationship between consumer perceptions and their impact on electronic transactions was tested, all mean scores were 3.4000 or higher; the median scores ranged from 3.000 for the various factors; and the mode scores were 5.000 for the various factors. The data analysis revealed that the implementation of electronic transactions had a mixed impact on ZESA's Performance. While some customers welcomed the digital platforms for making payments and few were wary of the security of the platforms, they felt hesitant to

use the digital platform services, resulting in limited perceived impact on customer satisfaction.

5.1.4 The Effectiveness of Existing Initiatives to Improve the Use of Electronic Transactions

The data analysis mixed results showed that the existing initiatives improved the usage electronic transactions and had a largely positive impact on overall performance of the company. However, the factors like barriers of accessibility to the tools and low rates of digital literacy had a negative impact on the usage of these initiatives. Customers reported that they found the platforms difficult to understand as they predominantly used English for instructions, leading to negative perceptions from the less educated consumers who in turn try to find third party help. Therefore, they perceived the platforms as unsecure as they would ask for help from other persons and share with them some Personal Identification Numbers to their electronic accounts.

5.2. Conclusions

This study set out to evaluate the impact of electronic transactions on ZESA's performance in the Murewa region, including factors such as revenue collection, bill payment timeliness, and customer satisfaction. The findings from the Likert-scale questionnaire survey conducted with ZESA customers in the Murewa area provide valuable insights into the key outcomes and barriers associated with the adoption of digital payment platforms.

The results indicate that electronic transactions have had a generally positive impact on ZESA's performance in Murewa. Respondents reported improvements in revenue collection, bill payment timeliness, and overall customer satisfaction levels. However, the study also identified several significant barriers that are hindering the wider adoption of digital payment methods among ZESA customers in the region.

Chief among these barriers is the lack of access to digital devices, unreliable internet connectivity, perceived complexity of digital payment platforms, security and privacy concerns, and the overall lack of digital literacy. These multifaceted challenges have

limited the extent to which electronic transactions can be leveraged to enhance ZESA's operational efficiency and service delivery.

In line with the sub-research objectives, the following conclusions were drawn:

- The digital payment platforms had a positive impact on overall ZESA's performance. Electronic transactions positively influenced revenue collection, timeous bill payments and customer satisfaction.
- Consumers have mixed perceptions on the efficiency of the electronic transaction
- platforms
- The existing initiatives have barriers negatively affecting the usage of electronic transaction

5.3. Recommendations

The recommendations for this study are formulated on the basis of the summary of findings and drawn from the conclusions in the previous section. Based on the research findings, the following recommendations are proposed to help ZESA leverage the benefits of electronic transactions and enhance its overall performance in the Murewa region:

Improve Digital Inclusion and Accessibility

Improve digital inclusion and accessibility by expanding internet infrastructure and providing affordable digital devices to customers. Collaborate with local authorities and telecommunications providers to expand the coverage and quality of internet infrastructure in the Murewa area. Implement programs to subsidize or provide affordable digital devices (smartphones, tablets, etc.) to low-income ZESA customers, ensuring equitable access to digital payment platforms.

Enhance the User-Friendliness of Digital Payment Platforms:

Conduct user-centered design workshops to better understand the needs and pain points of ZESA customers in Murewa, and use these insights to develop more intuitive and simplified digital payment interfaces. Provide comprehensive, multilingual user guides and tutorials to help customers navigate the digital payment platforms with ease.

Strengthen Cybersecurity and Data Privacy Measures:

Strengthen cybersecurity and data privacy measures to build customer trust in the digital payment ecosystem. Invest in robust cybersecurity infrastructure and protocols to safeguard customer data and transactions, addressing the security and privacy concerns of ZESA customers. Implement transparent data governance policies and educate customers on the measures taken to protect their personal and financial information.

Deliver Comprehensive Digital Literacy Programs:

Organize digital skills training workshops and awareness campaigns to equip ZESA customers in Murewa with the necessary knowledge and confidence to use electronic payment methods.

Collaborate with local educational institutions and community centers to integrate digital literacy modules into their curriculum and outreach programs.

Continuously Monitor and Evaluate Performance:

Establish a robust monitoring and evaluation framework to track the ongoing impact of electronic transactions on ZESA's performance in Murewa, including regular customer feedback and satisfaction surveys. Use the insights gained to continuously refine and optimize ZESA's digital payment strategies and address emerging challenges.

By implementing these recommendations, ZESA can harness the full potential of electronic transactions to drive improvements in revenue collection, bill payment timeliness, customer satisfaction, and overall operational efficiency in the Murewa region. Addressing the identified barriers and creating a more inclusive and user-friendly digital payment ecosystem will be crucial for ZESA to enhance its service delivery and meet the evolving needs of its customers.

5.4. Contributions of the study to body of knowledge

This case examination of ZESA’s digital payment platforms adoption and its impact on overall performance presents several meaningful additions to the body of academic knowledge. Contextually grounded in the economic realities of an African nation, it

enriches understandings of strategy effectiveness beyond developed energy markets often featured. Through a mixed-methods approach, both quantitative usage metrics and qualitative customer perspectives generate well-rounded insights. Not only does the research validate implementation as a primary efficiency driver, but also emphasizes the importance of accessibility, security, digital literacy and convenience in customers' holistic evaluations. This moves beyond isolated revenue collection models to present a more consumer-centered view of adoption decision-making. Moreover, the findings carry implications for policy makers. They suggest dynamic user training to diverse demographic segments which can optimize customer satisfaction. Continual monitoring and evaluation framework to track the ongoing impact of electronic transactions on ZESA's performance, by establishing regular customer feedback and satisfaction surveys opens doors to insights gained to continuously refine and optimize ZESA's digital payment strategies and address emerging challenges. Significantly, the recommendations point to various emerging research avenues incorporating online channels, loyalty programs, sentiment analysis and predictive algorithms - all increasingly vital considerations for modern performance benchmarking globally. Overall, this study presents a welcome African exemplar with relevance for both developed and developing digital transactions platforms adoption in the services industry theory and practice. It contributes contextually specific mixed insights while also stimulating ideas for further collaborative knowledge building across borders. In so doing, it enhances the body of scholarship in meaningful ways.

5.5. Suggestions for further research

More research is needed to build on the momentum generated by previous published studies chosen from the literature and the incremental knowledge added by this study. More research on comparative study of the impact of the adoption of digital payment platforms by energy services industry in Zimbabwe and their counterparts in neighboring South Africa. This could provide insights on regional digital payments platforms adoption strategies. Examining the relationship between pricing and customer loyalty programs over time. Assessing the demographic profiles and electricity consumer behaviors of older customer base younger generation. This will help optimize an omnichannel pricing

approach. Evaluating the impact of macroeconomic factors like inflation and disposable income levels on usage pattern and strategies and customer sensitivity levels.

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Appendix 1: Introduction letter

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

Dear respondent

I am a final year undergraduate at Bindura University of Science Education, conducting a research in partial fulfilment of the Bachelor of Commerce Honors Degree in Banking and Finance .I am therefore asking for your assistance in carrying out this research by the way of completing the following questionnaire. Please note that your response will be used purely for academic purposes only and will be treated with the strictest of confidentiality. I would appreciate it very much if the questionnaire could be returned at a suitable time. Counting on you kind cooperation.

Thank you very much for taking your time to participate in the study.
Yours sincerely

Appendix 2: Questionnaire

Demographics (tick *appropriate box only*)

Age: ☐(*aged 18-25*) ☐(*aged 26-40*) ☐(*aged 41-60*) ☐(*above 60*) **Gender:**

Female☐ *Male* ☐

Income Level (*per month***):** Low income (*under US$200)*☐ *Middle income ($200 – $600)*☐*High income (over $600)* ☐

Location: ☐Urban ☐Rural

Prepaid Electronic Platform Experience: *under 3 years*☐ *3 – 5 years*☐ *over 5 years*☐ **I have used the Old/ Manual Bill Payment before:** *Yes*☐ *No*☐

(A) The influence of electronic transactions on ZESA's performance amid digital payment adoption	**SCALE**				
	1	**2**	**3**	**4**	**5**
1. To what extent is the lack of access to smartphones or other digital devices a barrier to ZESA customers in Mrewa adopting electronic payments? (*1 - Not at all, 2 - Minor, 3 - Moderate, 4 – Significant, 5 – Major*)					
2. How problematic is the unreliable internet connectivity and network coverage in Mrewa for ZESA customers trying to use digital payment options? *(1 - Not at all, 2 - Slightly, 3 – Moderately, 4 – Very, 5 - Extremely)*					
3. To what degree does the perceived complexity and difficulty of using digital payment platforms hinder ZESA customers in Mrewa from adopting them? (*1 - Not at all, 2 – Minor, 3 – Moderate, 4 – Significant, 5 - Major*)					
4. How concerned are ZESA customers in Mrewa about the security and privacy risks associated with digital payments? *(1 - Not at all, 2 – Slightly, 3 – Moderately, 4 – Very, 5 - Extremely)*					

5. Overall, how would you rate the impact of the lack of digital literacy and familiarity with electronic payment methods on ZESA customers' adoption in the Mrewa region? *(1 – No, 2 – Minor, 3 – Moderate,4 – Significant, 5 - Major impact)*					
(B) The impact of electronic transactions on ZESA's performance, including factors such as revenue collection, bill payment timeliness, and customer satisfaction					
1. To what extent have electronic transactions improved ZESA's revenue collection in the Mrewa area? *1 - Significantly decreased revenue collection* *2 - Slightly decreased revenue collection* *3 - No impact on revenue collection* *4 - Slightly improved revenue collection* *5 - Significantly improved revenue collection*					
2. How would you rate the impact of electronic transactions on the timeliness of ZESA bill payments by customers in Mrewa? *1 - Significantly delayed payments* *2 - Slightly delayed payments* *3 - No change in payment timeliness* *4 - Slightly faster payments* *5 - Significantly faster payments*					
3. In your opinion, to what degree have electronic transactions enhanced ZESA's customer satisfaction levels in the Mrewa region? *1 - Significantly decreased customer satisfaction 2* *- Slightly decreased customer satisfaction* *3 - No impact on customer satisfaction* *4 - Slightly increased customer satisfaction* *5 - Significantly increased customer satisfaction*					
4. How would you assess the impact of electronic transactions on ZESA's operational efficiency and cost savings in the Mrewa area? *1 - Significantly decreased efficiency and increased costs* *2 - Slightly decreased efficiency and increased costs*					

3 - No impact on efficiency or costs *4 - Slightly improved efficiency and reduced costs* *5 - Significantly improved efficiency and reduced costs*					
5. Overall, how would you evaluate the net impact of electronic transactions on ZESA's performance and service delivery in the Mrewa region? *1 - Significantly negative impact* *2 - Slightly negative impact* *3 - No significant impact* *4 - Slightly positive impact* *5 - Significantly positive impact*					
(C) Consumer Perceptions of the Impact of Electronic Transactions on ZESA's Performance					
1. To what extent have electronic transactions reduced the time and effort required for ZESA customers in Mrewa to make payments? *1 - Significantly increased time and effort 2* *- Slightly increased time and effort* *3 - No change* *4 - Slightly reduced time and effort* *5 - Significantly reduced time and effort*					
2. Digital payment options are very convenient for ZESA customers How would you rate the reliability and dependability of ZESA's electronic payment systems in the Mrewa region? *1 - Highly unreliable* *2 - Somewhat unreliable* *3 - Neither reliable nor unreliable* *4 - Somewhat reliable* *5 - Highly reliable*					
3. In your opinion, to what degree have electronic transactions improved the transparency and traceability of ZESA's billing and payment processes in Mrewa? *1 - No improvement*					

2 - Slight improvement *3 - Moderate improvement* *4 - Substantial improvement* *5 - Dramatic improvement*					
4. How would you assess the level of security and protection against fraud provided by ZESA's electronic payment options in the Mrewa area? *1 - Highly insecure* *2 - Somewhat insecure* *3 - Neither secure nor insecure* *4 - Somewhat secure* *5 - Highly secure*					
5. Overall, what is your perception of the advantages of using electronic transactions for ZESA customers in Mrewa compared to traditional payment methods? *1 - Significantly more disadvantages than advantages 2* *- Slightly more disadvantages than advantages* *3 - Equal advantages and disadvantages* *4 - Slightly more advantages than disadvantages* *5 - Significantly more advantages than disadvantages*					
(D) The Effectiveness of Existing Initiatives to Improve the Use of Electronic Transactions					
1. To what extent has the adoption of electronic transactions improved ZESA's operational efficiency in Mrewa? *1 - Not at all* *2 - Slightly* *3 - Moderately* *4 - Considerably* *5 - Greatly*					

2. How would you rate the impact of electronic transactions on reducing ZESA's administrative costs in the Mrewa region? *1 - Significant increase in costs* *2 - Slight increase in costs*					
3 - No change *4 - Slight decrease in costs* *5 - Significant decrease in costs*					
3. In your opinion, to what degree have electronic transactions improved ZESA's customer service and responsiveness in Mrewa? *1 - No improvement* *2 - Slight improvement* *3 - Moderate improvement* *4 - Substantial improvement* *5 - Dramatic improvement*					
4. How would you assess the level of customer satisfaction with ZESA's electronic payment and billing systems in Mrewa? *1 - Very dissatisfied* *2 - Somewhat dissatisfied* *3 - Neither satisfied nor dissatisfied 4 - Somewhat satisfied* *5 - Very satisfied*					
5. Overall, how has the adoption of electronic transactions affected ZESA's performance and service delivery in the Mrewa region? 1 - *Significantly worsened* *2 - Slightly worsened* *3 - No change* *4 - Slightly improved* *5 - Significantly improved*					

******The end ******