FACTORS INFLUENCING THE ADOPTION OF E-SERVICES BY THE INFORMAL SECTOR: A CASE OF ECIS UNDER NAPSA

BY

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A Dissertation submitted to the University of Zambia in partial fulfilment of the requirements for the award of the Degree of Masters' Management Strategy

THE UNIVERSITY OF ZAMBIA

LUSAKA

2024

DECLARATION

I, Mubanga Musenga, do hereby declare that this work is my original work achieved through personal reading and research. This work has never been submitted to the University of Zambia or any other Universities. All sources of data used and literature on related works previously done by others, used in the production of this Dissertation have been duly acknowledged. If any omission has been made, it is not by choice but by error.

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APPROVAL

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ABSTRACT

The study was conducted to investigate the factors influencing the adoption of e-services by the informal sector under the Extension of Coverage to the Informal Sector (ECIS) under NAPSA. The study adopted the UTAUT framework model from which five variables were examined which are: performance expectancy, effort expectancy, social influence, facilitating conditions and behavioural intention to determine the factors influencing the actual use of eService systems. The researcher adopted a mixed methodology approach which applied both quantitative and qualitative techniques of data collection and analysis. A sample size of 301 marketeers was randomly selected and determined using the Moazzam formula, from which data was using questionnaires and analysed using SPSS. The demographic data shows that most of the respondents from the marketeers where female with a frequency of 211 out of 301 respondents which accounted for 70.1% of the total respondents with males having a frequency of 90 out of 301 accounting 29.9%. The results from SPSS outputs indicate: the correlation coefficient of -0.329 with P value of 0.061 indicates a negative relationship between performance expectancy and the use of ENAPSA services by the marketers. Effort expectancy is not significant with the Pearson correlation of 0.096 with a p value of 0.072. Social influence is not significant as indicated in the table above with the Pearson correlation of 0.042 with a p value of 0.001. The correlation coefficient of 0.312 with p value of 0.002 indicates a positive relationship between facilitating conditions and the use of ENAPSA services by the marketeers. The correlation coefficient of –0.181 with a p value 0.052 indicates a negative relationship between behaviour intention and the use of ENAPSA services by the marketeers. From the five variables, social influence and facilitating conditions which are driving the adoption of ENAPSA services. This means that the marketers believe that the usage of e-NAPSA services platforms would yield positive results and the conflicting results from the actual usage of e-NAPSA services with lowest mean of 1.4485 indicating that the adoption of system usage would not benefit the marketeers.

Keywords: Adoption, UTAUT, NAPSA, ECIS, Performance expectancy, Effort Expectancy, Social influence, Facilitating conditions, Behavioral intentions, Actual usage.

ACKNOWLEDGEMENTS

This research would not have been possible without considerable information and facts gotten from other researchers and sources that have researched extensively on communication and to this the researcher duly acknowledges their input to the study.

My deepest appreciation goes to my supervisor, Dr Jackson Phiri for taking the patience of reading through my work and making constructive criticisms and useful suggestions that helped me to stay focused from the beginning of this work till the end. I am highly indebted to my late parents, for their constant financial, material, and moral support without which this research would not have been made possible; and to my family and my brothers and sisters for their love, encouragement and prayers which gave me the strength to go on at every stage.

Secondly, I wish to extend a heartfelt thank you to all my incredibly special friends whose discussions and ideas in one way or another enlightened me while carrying out this research. Finally, I would like to say special thanks to God Almighty for giving me his grace throughout this period and providing me with both the intellectual and physical capacities and the opportunity to live up to the completion of this research. To all those whose names have not been mentioned here, know that am grateful to you.

DEDICATION

To my parents, Col G Musenga and Col C. C. Sikalumbi, both posthumous for their financial, emotional and academic support throughout this season of my education and life, to my family i.e. my spouse and children and my siblings for holding my hand through this journey.

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LIST OF ABBREVIATIONS

ICT--	Information and Communication Technology
NAPSA -	National Pension Scheme Authority
ECIS -	Extension of Coverage to the Informal Sector
UTAUT-	Unified Theory of Acceptance and Use of Technology
TRA-	Theory of Reasoned Action
TBP-	Theory of Planned Behaviour
TAM-	Technology Adoption Model
GSB-	Graduate School of Business
APP-	Application
MNO-	Mobile Network Operator
SME-	Small to Medium Enterprises
DTPB -	Decomposed Theory of Planned Behaviour
IB-	Intention Behaviour
PCI-	Perceived Characteristics of Innovation
TPR-	Theory of Perceived Risk
TIR-	Theory of Innovation Resistance
PACRA-	Patents and Companies Registration Agency
GSB-	Government Service Bus
MP-	Member of Parliament
JRIM-	Journal of Research Innovation and Management

CHAPTER 1

INTRODUCTION AND BACKGROUND

This chapter introduces the dissertation and information on the background of the study, including the informal sector, its growth and representation in the Pensions industry under NAPSA and online services on eNAPSA. The statement of the problem is given regarding the factors that influence the adoption of eservices by the informal sector, followed by the aim and objectives. The research questions, significance of the study and scope are also covered in this chapter. The end looks at the organisation of the dissertation paper.

1.1 Introduction

ICTs play an important role in business as it has revolutionized operations and service delivery in all sectors across the globe. Information and Communication Technologies (ICT) have influenced all sectors including personal life and organizational management. Their prevalence has resulted in powerful and transformative products which affect our daily life (Kiyeng Philip Chumo, 2015). E-services refer to internet-based applications that fulfil service needs by seamlessly bringing together distributed, specialized resources to enable complex and often real time transactions (Ada Scupola, 2009). These days we can observe a rapid growth in the development of e-services. An important trend in contemporary global economy in particular countries and in the international perspective is as a result of the fact that a new type of services is provided and consumed using internet based or electronic system is of great importance to the marketing strategy services (Pawel Brzustewicz, 2016). Adoption of ICT by businesses facilitates operational efficiency, internal and external communication, reduction in operational cost, knowledge management, decision making and improved service delivery. ICTs have brought about a new dimension in institutions, that of enhancing the touchpoints the public institutions have with their customers, with an aim of a differentiated customer service and customer experience. The business ICT system provides abundant advantages to customers, however, there is still an absence of trust among some customers. Absence of face-to-face interaction makes it very impersonal (Vernon Mukuwa, 2020). Thus, customers are more comfortable dealing with people in a physical office setting that provides personalized services

as opposed to mechanical interaction. Many customers still do not trust the online mode of service especially for money related transactions. Users who are not familiar with e-services feel very uncomfortable as they have doubts regarding the accuracy of the transactions done online (Lufwendo Lishomwa, 2020).

1.2 Background

In recent years, the National Pension Scheme Authority (NAPSA) has become aware of incorporating service delivery in its strategy, including initiatives like extension of coverage to the informal sector, decentralization of benefits processing, introduction of use of technology in funds management, enhancing communication links in the authority and external agencies among other initiatives (NAPSA, 2018).

E-NAPSA was introduced in January 2017 which is a web-based service portal through which employers and employees transact with the authority. This was done to decongest the offices particularly when deadline for monthly statutory payments was approaching. Employers can register employees and file monthly returns, members can also register on the portal and keep track of their details, contributions, and benefits information online (NAPSA, 2018). NAPSA has several ICT platforms that can be used to access its services, including E-NAPSA website, NAPSA mobile, NAPSA on Facebook and NAPSA APP platforms.

1.2.1 The informal sector

The informal sector/ economy may be broadly defined as part of the economy not covered or sufficiently covered by formal arrangements. These arrangements may include government regulations for business registration, the payment of social contributions on behalf of employees, and the payment of taxes related to business transactions. The informal economy is of interest to policy makers owing to its impact on economic growth and productivity, with informal workers and firms associated with lower productivity. The informal economy is hard to measure because people and businesses engaged in informal economic activity usually operate on a small scale or seek to avoid regulation. Such small-scale endeavours may be below the threshold required to register a business or pay taxes. Yet, some informal economic activities may be purposefully hidden, associated with tax and social security evasion not only

in micro firms but also in larger firms. Since informal economy activities are generally small and not registered, statistical agencies face difficulties in measuring economic activities associated with informality (Fund, 2021)

According to (Sarbajit Chaudhuri, 2010)The formal-informal sector dichotomy was first used in a study if urban Ghana. The provided distinction between formal and informal sectors are organisational characteristics of exchange relationships and the position of economic activities vis-à-vis the state. It was also suggested that the activities could be sorted out on the basis of mode of production, organisation, scale of operation, technology, productivity, and labour markets. The following are suggested characteristics of the informal sector:

1. Easy entry for the new enterprises
2. Reliance on indigenous resources
3. Family ownership or enterprises
4. Small scale operations and low productivity
5. Labour-intensive and adapted technology
6. Reliance of workers on informal sources of education and skills
7. Unregulated and competitive markets
8. Lack of government support

According to (Gerxhani, 1999), Keith Hart (1971, 1973) -a social anthropologist- was the first person to bring the term informal sector (in a Third World context) into the academic literature. He introduced the concept of the informal sector to describe a part of the urban labour force, which works outside the formal labour market. Hart considered the informal sector as almost synonymous for all categories of (small) self-employed individuals. This was thereafter typically used to refer to ways of making a living outside the formal wage economy, either as an alternative to it, or as a means of supplementing income earned within it. Even though Hart's original notion of the informal sector is limited to the self-employed, the introduction of the concept made it possible to incorporate activities that were previously ignored in theoretical models of development and in national economic accounts. This was an important characteristic of the subsequent use of the term.

1.2.2 Growth of the informal sector

The segmented labour market models postulate the informal sector as a temporary phenomenon, motivated by the objective employment generation rather than profit

maximisation and viewed it as holding ground for workers awaiting entry into the modern sector. It was therefore assumed that the informal sector comprising of petty traders, small producers and a range of causal workers would eventually be absorbed into the formal economy and disappear. The evidence of increased proportions of informal activities in developing countries coupled with economic progress has led economists to emphasise informal sector as the focal point of development. The ILO study in 2002 noted that out of 42 countries, 17 had more than half of their total employment in the informal sector and only 4 countries had less than 10% of total employment in the informal sector. Among the regions covered, sub-Saharan African countries have the highest proportion of informal to total employment (Sarbajit Chaudhuri, 2010).

In Zambia like in many developing countries, quality and up-to-date information on the size and characteristics of informal workers are scarce, which constitutes a major challenge to the formulation of appropriate policies targeting this group, and the extension of social protection coverage in general. Despite its importance to employment and contribution to the economy, the definition and measurement of the informal economy pose a challenge. The analysis on informality and poverty in Zambia presents useful and critical information to support comprehensive policy dialogue on suitable interventions for extension of coverage (Caroline Tassot, 2018).

Zambia's labour force comprises of about 5 million workers. Where are these people employed? How many businesses does Zambia have? What are the characteristics of these businesses? These questions can be addressed using data from the Zambia Business Survey (ZBS). This survey, conducted in 2008, was the first nationally representative survey of MSMEs in Zambia. It included all provinces within Zambia, and defined businesses to include household enterprises and those in agriculture. By sample design, this survey is representative of the MSME sector in Zambia, including informal enterprises. MSMEs in the survey are defined as firms with less than 50 employees, including the owner. Employees include unpaid workers and those paid in kind (Shah, 2012).

According to (Agency, 2022), The employed are people who have a paid job; running a business (i.e., farm or non-farm) or are contributing family workers within a specified short reference period (i.e., last 7 days). Informal employment rate was 76.3 percent. The informal employment rate for males and females was 72.5 percent and 81.9 percent, respectively. Rural areas had an informal employment rate of 86.3 percent while urban areas had a rate of 71.0 percent. The labour market has three sectors of employment namely the formal, informal and

household sectors. Formal sector employment relates to all jobs in establishments or enterprises that are registered with a licensing authority. Informal sector employment relates to all jobs in unregistered enterprises. Employment in households refers to all jobs carried out for households.

1.2.3 ICTs in Pensions Administration

In general terms, the use of ICT to provide eservices impacts social security delivery, as it facilitates targeting by identifying beneficiaries more effectively, improves payment mechanisms, allows savings on operational cost and on benefits provided. ICTs increase accountability, transforms, and extends the reach of service delivery to the underserved in an innovative, fast, and cost-effective manner. ICTs increase accessibility, inclusivity and flexibility in service delivery and allow more citizens to interact with government with the flexibility of choice offered by multiple delivery channels and in more convenient time frames (Gianiuca Misuraca, 2017). There is still more room to exploit the benefits that the digital technologies can provide to further reduce costs and widen the reach of the formal financial sector (2017-2022 National Financial Inclusion Strategy). To achieve this, it is inevitable to understand the fundamental factors that drive the adoption of digital / eservices (Gladys Daka, 2019)

1.3 Statement of the Problem

The problem statement of this study revolves around the limited adoption and utilization of e-services among informal sector workers in Zambia, despite the growing availability and accessibility of digital financial services. Despite the potential benefits of e-services in enhancing financial inclusion, improving efficiency, and fostering economic empowerment, there remains a significant gap in understanding the factors that influence their adoption and usage among this demographic.

Informal sector workers constitute a substantial portion of the workforce in Zambia, yet they often face unique challenges that hinder their engagement with formal financial systems and digital platforms. These challenges range from limited awareness and knowledge about e-services to practical barriers such as technical difficulties, financial constraints, and trust-

related issues. Additionally, the specific interactions and experiences of informal sector workers with programs like NAPSA's ECIS (Electronic Contributions and Information System) remain underexplored, leaving a gap in knowledge about how to optimize these services to better serve this demographic (NAPSA, 2018).

The problem is further exacerbated by the lack of tailored support mechanisms, comprehensive training programs, and accessible customer service channels designed to address the specific needs and preferences of informal sector workers. Without adequate support and guidance, many informal sector workers struggle to navigate the complexities of digital financial services, leading to low adoption rates and missed opportunities for financial inclusion and empowerment (Office, 2018).

Furthermore, the existing literature on e-service adoption often focuses on urban populations or formal sector workers, neglecting the unique challenges and opportunities faced by informal sector workers in peri-urban and rural areas. This lack of targeted research limits the development of effective strategies and interventions to promote e-service adoption among informal sector workers and optimize the impact of programs like NAPSA's ECIS (Lufwendo Lishomwa, 2020).

1.4 Aim of the Study

The aim of this study is multifaceted. Firstly, it seeks to assess the awareness and knowledge levels of informal sector workers concerning e-services and NAPSA's ECIS program. This involves understanding where these workers obtain information about digital financial services and gauging their familiarity with NAPSA's offerings.

Secondly, the study aims to delve into the usage patterns and interactions of informal sector workers with e-services. This includes examining how frequently they use e-services, which types of services they prefer, and the depth of their engagement with NAPSA's ECIS program. Understanding these usage patterns is crucial to identifying areas for improvement and optimization of digital financial services for this demographic.

Thirdly, the study aims to explore the perceptions, attitudes, and beliefs of informal sector workers towards e-services. By uncovering their perceived benefits, barriers, and concerns, the study aims to gain insights into the factors influencing their decision-making processes

regarding e-service adoption. This understanding can inform strategies to address misconceptions and promote the benefits of digital financial services more effectively.

1.5 Research Objectives

i. To assess the awareness and knowledge levels of informal sector workers in Zambia regarding e-services and NAPSA's ECIS program.
ii. To adapt a model that will help improve adoption of e-services for ECIS under NAPSA
iii. To identify the specific barriers, challenges, and obstacles that hinder the adoption and utilization of e-services among informal sector workers.

1.6 Research Questions

i. How can existing models for e-service adoption be adapted or customized to enhance the adoption and utilization of ECIS under NAPSA among informal sector workers in Zambia?
ii. Where do informal sector workers typically obtain information about digital financial services and NAPSA's offerings?
iii. What are the main barriers and challenges faced by informal sector workers in Zambia when considering the adoption of e-services?

1.7 Significance of the Study

The significance of this study is multi-dimensional, with implications that extend to policy development, economic empowerment, and academic research. Firstly, the findings have the potential to inform policymakers and stakeholders about the unique needs and challenges faced by informal sector workers in Zambia when adopting e-services. This understanding can guide the formulation of targeted policies and strategies aimed at promoting digital financial inclusion and enhancing the effectiveness of initiatives such as NAPSA's ECIS program.

Secondly, the study contributes to the advancement of digital financial literacy by identifying knowledge gaps and awareness levels among informal sector workers. By shedding light on these areas, the study can inform the design and implementation of educational and awareness campaigns tailored to enhance digital financial literacy among this demographic, empowering them with the necessary skills to navigate digital financial platforms effectively.

Furthermore, the study holds significant potential for fostering economic empowerment among informal sector workers. By promoting the adoption and utilization of e-services, the study can contribute to improving financial management practices, enhancing business operations, and fostering economic resilience. This can ultimately lead to improved livelihoods and increased economic opportunities for informal sector workers in Zambia.

Additionally, the study's insights can help optimize the effectiveness of NAPSA's ECIS program by providing actionable recommendations for tailoring the program to better meet the needs of its target audience. Understanding the specific barriers and support needs of informal sector workers can help enhance the program's impact and reach, ensuring that it effectively serves its intended purpose of facilitating digital financial contributions and information dissemination.

Moreover, from an academic perspective, the study contributes to the existing body of knowledge on e-service adoption, digital financial inclusion, and economic empowerment, particularly within the context of informal sector workers in Zambia. It serves as a valuable reference point for future research endeavors, contributing to the advancement of academic discourse and understanding in these fields.

1.8 Scope of the study

The scope of the study will be restricted to Kabuma market in Kanyama, one of the pilot projects for the Extension of Coverage to the Informal Sector, to understand factors that influence adoption of eservices by the informal sector to understand the Information and Communication Technology processes and platforms provided by NAPSA.

The study will specifically target informal sector workers, including street vendors, artisans, small-scale traders, and other self-employed individuals who may not have regular access to formal financial services. The focus will be on adults aged 18 and above who are actively engaged in informal economic activities. The study will primarily focus on e-services relevant to financial contributions and information dissemination under NAPSA's ECIS program. This includes exploring the adoption and utilization of digital platforms for making contributions, accessing information, and engaging with NAPSA's services. While the study aims to provide comprehensive insights into the adoption and utilization of e-services among informal sector workers in Zambia, it may have certain limitations. These could include sample size

constraints, potential biases in participant selection, and limitations inherent to the research methods employed.

1.9 Organization of the Dissertation

The dissertation is divided into five chapters as follows.

Chapter Two outlines the various literature done by different scholars on the subject matter, identifying findings and gaps. Chapter Three highlights the methodology that was employed to carry out the study, discussing the design, population, data collection methods, techniques, and analysis. The proposed research method, hypothesis and ethical considerations are also covered. Chapter Four presents the analysis of the collected data. The chapter also tests and presents the results of the hypothesis stated in Chapter three. It will interpret, discuss, and conclude the results the research results. Chapter Five answers the study questions discussed in the first chapter. Conclusions and recommendations are given based on the findings of the study.

1.10 Chapter Summary

This chapter has given a background and problem statement regarding the factors that influence the adoption of eservices by the informal sector. The aim of the study was highlighted followed the objectives were used to answer the research questions and lastly the significance of the study was given to define the beneficiaries of the study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter explores the factors influencing the adoption of e-services by informal sector workers in Zambia, focusing on marketeers enrolled in NAPSA's ECIS program. The UTAUT model serves as the primary framework for analyzing these factors. This review will discuss existing research on each UTAUT construct (performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral intention) in the context of e-service adoption within the informal sector. We will identify key findings, gaps in knowledge, and how this study aims to contribute to the existing body of research.

2.2 UTAUT and ICT Adoption

The UTAUT model, developed by Venkatesh et al. (2003), is a widely recognized framework for understanding technology adoption behavior. It proposes that individuals' intention to use a technology is influenced by four key factors:

a. Performance Expectancy: The belief that using e-services will result in positive outcomes is a crucial driver of adoption. In the context of marketeers, performance expectancy may be linked to benefits such as:
b. Increased Efficiency: E-services can streamline a wide range of tasks associated with running a market stall. For instance, e-services can automate record-keeping for inventory, sales, and expenses. This frees up valuable time for marketeers to focus on core business activities such as customer interaction, sales strategies, and product sourcing (Mwinga, 2022). Additionally, e-services can facilitate cashless transactions, reducing the time and security risks associated with handling cash.
c. Improved Decision-Making: Access to real-time data and market information through e-services can empower marketeers to make informed decisions across a range of business aspects. For instance, e-services can provide data on market trends, competitor pricing, and customer preferences. By leveraging this data, marketeers can optimize their product selection, pricing strategies, and marketing efforts to better align with customer demand. E-services can also connect marketeers to online marketplaces or facilitate communication with wholesalers and suppliers, enabling them to source

products more efficiently and potentially negotiate better deals. This can lead to increased profitability and improved business sustainability.

d. Enhanced Customer Service: E-services can facilitate communication with customers in a variety of ways. Marketeers can leverage e-services to create and manage customer databases, allowing them to send targeted promotions and updates on product availability. E-services can also enable online customer support channels, such as chatbots or email ticketing systems, providing a more convenient and efficient way for customers to address inquiries or voice concerns. By enhancing communication and responsiveness, marketeers can build stronger customer relationships and foster loyalty, potentially leading to increased sales and customer retention.
e. Greater Access to Government Services: E-services can simplify interactions with government agencies in a multitude of ways that can benefit marketeers. For instance, e-services can streamline the process of registering businesses, which can be a time-consuming and bureaucratic hurdle for informal sector workers. E-services can also provide access to government grants, subsidies, or other financial assistance programs that can support marketeers in growing their businesses. Additionally, e-services can facilitate communication with government agencies responsible for market regulation or consumer protection, ensuring that marketeers are operating in compliance with relevant laws and regulations. This can provide peace of mind and reduce the risk of penalties or disruptions to their businesses.

However, cultural factors and economic realities can significantly influence how marketeers perceive these benefits. For instance, research suggests that digital literacy levels can impact the perceived usefulness of e-services (Nkandu, 2022). Marketeers with limited experience using technology may be skeptical about the ability of e-services to address their specific needs. Additionally, cultural norms and traditional business practices within communities may influence how readily marketeers embrace new technologies. Concerns about data security or privacy may also arise, particularly if there is a lack of awareness or trust in how e-services handle personal information (Chibuye, 2022). Furthermore, economic realities must be considered. If a significant portion of marketeers operate in cash-based economies or lack access to reliable internet connectivity, the perceived benefits of e-services may be diminished. Even if marketeers acknowledge the potential advantages of e-services, they may be hesitant to adopt them if the upfront costs of obtaining devices or internet access are seen as outweighing the perceived benefits. This highlights the importance of considering affordability

and ensuring that e-services are designed in a way that is accessible and relevant to the specific context and constraints faced by informal sector workers.

2.2.1 Performance Expectancy

Studies by Daka (2019) investigating e-banking adoption in Zambia revealed that users perceive convenience and time-saving benefits as significant motivators. This aligns with the potential for e-services to streamline record-keeping and financial transactions for marketeers. However, research by Nguni (2019) on mobile application usage in Zambia highlights the importance of considering cultural factors. Marketeers may not perceive a strong need for e-services if traditional business practices are well-established and trusted within their communities. Additionally, economic realities must be considered. If a significant portion of marketeers operate in cash-based economies or lack access to reliable internet connectivity, the perceived benefits of e-services may be diminished. This review aims to bridge this gap by specifically exploring how marketeers enrolled in NAPSA's ECIS program perceive the performance expectancy of e-services (Lute Sakala, 2019). Do these services align with their specific needs and business practices? Are there concerns about the applicability or relevance of e-services in their day-to-day operations?

2.2.2 Effort Expectancy

Effort expectancy refers to the perceived ease of use of a technology. Research by Mwinga (2022) examining e-PACRA services in Zambia highlights that users perceive a complex system or lack of user-friendly interfaces as barriers to adoption. This concern is particularly relevant for informal sector workers who may have limited experience with technology. Studies by Vijayabasker (2005) on ICT adoption in developing countries suggest that a lack of digital literacy skills can be a significant barrier. Furthermore, even if marketeers possess basic digital literacy skills, navigating unfamiliar e-service platforms can be challenging. If e-services are not designed with user-friendliness in mind, even seemingly simple tasks can become frustrating and deter potential users.

Several studies explore strategies to address these challenges and improve effort expectancy. Nguni (2019) emphasizes the importance of user-centered design principles in developing mobile applications. E-services designed with clear interfaces, intuitive navigation, and features tailored to the specific needs of marketeers are more likely to be perceived as easy to

use. Additionally, training programs and user support systems can play a crucial role in boosting effort expectancy. Research by Kozo (2022) suggests that providing training materials and technical support can empower users to overcome initial hurdles and navigate e-services effectively.

2.2.3 E-Government Initiatives and Adoption Challenges

Studies by Kademaunga (2019) and Munafumpa (2023) explore the Zambian government's push for e-procurement (ZPA) and e-licensing (ZRA) using the UTAUT model. These initiatives highlight the potential benefits of e-services, including efficiency, transparency, reduced corruption, and improved record-keeping (Munafumpa, 2023). For instance, the Zambia Revenue Authority's (ZRA) Customs Electronic Licensing System (CELS) offers convenient online application submission, eliminates time constraints, and facilitates faster license processing (Munafumpa, 2023). However, both studies reveal adoption challenges related to user skills, internet access, and system usability. Ibid (2023) identifies a lack of ICT skills, electronic devices, and internet access as significant barriers for clearing and forwarding agents using CELS. Similarly, Kademaunga (2019) suggests that a complex ZPPA e-procurement system might deter potential users, hindering the realization of anticipated benefits such as reduced bureaucracy and improved monitoring of bids and contracts (Kademaunga, 2019).

2.2.4 E-Learning Platforms and Usage Discrepancies

Himoonga (2020) explores e-learning platform adoption in Zambian tertiary institutions. While internet and mobile phone use are widespread, only a small percentage leverage them for educational activities (Himoonga, 2020). This highlights a need for further research on user perceptions and the applicability of e-learning platforms for practical programs. Understanding the factors influencing perceived ease of use and enjoyment (Himoonga, 2020) can be crucial for promoting e-learning adoption among lecturers and students.

Himoonga's (2020) study suggests several areas for further investigation. One key question is why, despite having access to technology, a significant portion of the population does not engage in e-learning activities. Are there concerns about the quality or effectiveness of online

learning compared to traditional classroom instruction? Do students lack the motivation or self-discipline required for independent study in an e-learning environment? Additionally, the study highlights the potential challenges of adapting e-learning platforms for practical programs that require hands-on experience or specialized equipment. Further research is needed to explore how e-learning platforms can be designed to effectively support a wider range of educational disciplines and learning objectives.

2.2.5 E-Government Services and the Importance of User Trust

Undi-Phiri (2022) emphasizes the potential of e-government services to improve citizen engagement, service access, and government transparency. However, the study emphasizes the need to address user concerns about security and data privacy. Building trust is essential for successful e-government service adoption. This can be achieved through multiple strategies. User education campaigns can raise awareness of data protection measures implemented by government agencies. Additionally, collaborating with institutions like ZICTA, the Zambia Information and Communications Technology Authority, can foster public confidence in the government's commitment to secure online transactions and data privacy. Furthermore, ensuring a user-friendly design and transparent service delivery processes can contribute to a sense of trust and encourage wider adoption of e-government services.

2.2.6 Company Registration and Compliance Issues

Mweetwa's (2019) study on PACRA registrations using the TPB model suggests a correlation between ease of registration and company formation, but not necessarily with compliance. The study highlights the importance of trust in government agencies and targeted education for younger business owners. Understanding the factors influencing compliance intentions can be crucial for improving business practices and economic growth.

2.2.7 FinTech and the Transformation of Financial Services

Iluba (2021) examines the rise of FinTech and its impact on traditional banking using Diffusion of Innovation Theory. The study emphasizes the competitive advantage FinTech companies hold due to their ability to leverage technology for delivering financial services. Understanding user perceptions of relative advantage, compatibility, and trialability can inform strategies for traditional banks to adapt and compete in the evolving financial landscape.

Njuka's (2021) study explores social media's role in managing the reputation of Christian organizations. The lack of a well-defined social media strategy and limited online engagement create vulnerability to reputational damage. This study, while not directly related to e-service adoption, highlights the importance of user engagement and strategic communication in building trust within online communities.

2.2.8 Improved Efficiency

E-services can streamline business processes, saving time and resources across the entire value chain. For instance, online procurement platforms can simplify vendor selection and ordering, while e-marketing tools can automate repetitive tasks associated with customer outreach and promotion (Mweetwa, 2019). Inventory management systems can provide real-time stock visibility, enabling marketeers to optimize ordering and reduce the risk of stockouts. E-services can also streamline communication and collaboration with suppliers or distributors. Electronic communication platforms allow for faster and more efficient exchange of information, quotes, or invoices, expediting business transactions.

2.2.9 Enhanced Transparency

E-services can increase transparency in transactions and interactions with government agencies or business partners. Electronic record-keeping and online receipts create an auditable trail that can reduce the risk of errors and fraud (Munafumpa, 2023). This can be particularly beneficial for marketeers who may be concerned about unfair treatment or corruption when dealing with government bureaucracies. E-services can also promote accountability by providing a clear record of interactions and transactions. For example, if a marketeer applies for a business permit online, they can track the application status electronically and receive updates on any required documentation or fees. This transparency can foster trust between marketeers and government agencies, encouraging them to engage in formal economic activity.

2.2.10 Increased Convenience

E-services offer greater convenience by allowing anytime, anywhere access. This is particularly beneficial for busy marketeers who may have variable work schedules or operate in remote locations. Mobile e-services can facilitate tasks like checking inventory, processing payments, or scheduling deliveries while on the go. For instance, a marketeer selling vegetables

at a local market can use a mobile app to accept electronic payments from customers, eliminating the need to carry cash or handle change. E-services can also streamline communication with suppliers or customers, allowing marketeers to send and receive messages or updates at their convenience.

2.2.11 Technology Acceptance Models

Several studies have successfully employed the UTAUT model and TAM to understand user perceptions of e-services in Zambia. Mooya (2021) applied the UTAUT model to investigate the adoption of an e-marketing system (Zamefa E-Commerce) by cable manufacturing companies. The study found that performance expectancy, particularly the belief that the system would enhance their competitive advantage and reach new markets, significantly influenced adoption. Lute Sakala (2019) and Soneka & Phiri (2019) utilized the TAM model to explore factors affecting mobile banking adoption and e-tax system adoption, respectively. Both studies highlighted the importance of perceived ease of use (effort expectancy) for encouraging user acceptance. These findings suggest that e-services that are user-friendly and demonstrate clear value propositions have a greater chance of being adopted by Zambian users.

2.2.12 Expanded Reach

E-services can help marketeers reach a wider customer base beyond their immediate geographic location. Online marketplaces and social media platforms connect them with potential customers across the country and even internationally. This can be particularly beneficial for marketeers selling niche products or targeting a specific customer segment. For example, a marketeer specializing in handcrafted souvenirs can leverage online platforms to showcase their products to tourists or people interested in Zambian crafts. Social media marketing can also help marketeers build brand awareness and establish relationships with potential customers, fostering a sense of community and loyalty.

2.3. Gaps and Areas for Further Research

The reviewed studies highlight the potential of e-services to transform various sectors in Zambia. However, significant challenges related to user skills, internet access, system usability, and trust persist. Further research is needed to explore how these challenges can be addressed within the context of marketeers enrolled in NAPSA's ECIS program. How do these marketeers perceive the performance expectancy, effort expectancy, and social influence of e-services?

What are the facilitating conditions that can enhance their adoption of e-services? By addressing these questions, this study aims to contribute to a more comprehensive understanding of e-service adoption within the informal sector in Zambia.

However, challenges persist regarding user skills, internet access, system usability, and trust in government agencies (Kademaunga, 2019; Munafumpa, 2023; Undi-Phiri, 2022). These challenges can hinder the adoption of e-services by marketeers in the ECIS program. For instance, a lack of digital literacy or experience with computers could make it difficult for them to navigate e-service platforms. Additionally, limited or unreliable internet connectivity in certain areas can restrict access to e-services. Furthermore, concerns about data security or privacy may discourage some marketeers from using e-services provided by government agencies.

2.3.1 Limited Research on Informal Sector

The existing research landscape offers valuable insights into e-service adoption across various sectors in Zambia (Himoonga, 2020; Iluba, 2021). However, a significant gap exists regarding the informal sector, particularly marketeers enrolled in the National Pension Scheme Authority's (NAPSA) Employment Creation through Self-employment Initiative (ECIS) program.

2.3.2 Digital Literacy and Skills Gap

Limited formal education and prior technology experience can create a significant barrier to understanding and efficiently using e-services (Mooya, 2021). Research is needed to explore the specific digital literacy needs of marketeers, considering their educational background, age, and any prior exposure to technology. Training programs should be designed to be targeted, relevant, and delivered in a user-friendly manner that caters to different learning styles and paces. This could involve incorporating visual aids, hands-on exercises, and bite-sized learning modules that can be easily absorbed within the busy schedules of marketeers.

The training should go beyond basic computer literacy and delve into practical skills directly applicable to their daily business operations. For example, training could cover topics such as navigating e-commerce platforms to find better deals on wholesale goods, using social media for targeted marketing campaigns to specific customer segments, and managing mobile money transactions securely and efficiently to track sales and manage finances. Gamification

techniques can also be explored to make the learning process more engaging and interactive, potentially increasing knowledge retention and motivation among participants.

2.3.3 Focus on Formal Sectors

The bulk of existing research on e-service adoption investigates established sectors with standardized operational environments, well-defined roles, and often salaried employees. These sectors include banking (Mwiya, 2017; Worku, 2020), education (Makumba, 2023; Sthapit, 2019), and corporate environments (Lufwendo & Phiri, 2020). In contrast, the informal sector presents a unique case with distinct characteristics that are not well-reflected in the current research landscape. Informal marketeers, for example, typically operate mobile businesses, have varying levels of formal education and digital literacy, and face financial constraints that limit access to technology and reliable internet connections. These unique characteristics necessitate a more nuanced understanding of how e-services can be adopted and effectively integrated into their daily work routines.

2.3.4 Limited Generalizability

The focus on specific user groups or geographic locations in existing research limits the generalizability of findings to the broader Zambian context. For instance, a study on corporate customers of a single bank branch in Lusaka (Lufwendo & Phiri, 2020) may not reflect the experiences and challenges faced by small-scale farmers in rural areas. Similarly, a study on university students in Taiwan (Chao, 2019) may not provide insights applicable to informal marketeers with limited formal education. To gain a comprehensive understanding of e-service adoption within the Zambian informal sector, research efforts need to encompass a wider range of participants and geographical locations. This could involve studies that include marketeers from various regions of Zambia, representing different market sizes, product categories, and levels of digital literacy.

2.3.5 Cross-Sectional Designs

Existing research heavily relies on cross-sectional designs, which capture user perceptions and intentions at a single point in time (Mwiya, 2017). This approach offers a snapshot of user attitudes but fails to capture the dynamic nature of e-service adoption. Longitudinal studies, on the other hand, track user behavior over time, allowing researchers to assess how initial perceptions and intentions translate into actual use over an extended period. For example, a

longitudinal study could track a group of marketeers enrolled in an e-service training program. The study could measure their initial attitudes towards e-services, track their progress in learning e-service skills, and then assess their actual e-service adoption behavior several months after the training program. This approach would provide valuable insights into the factors that influence the transition from e-service awareness and intention to sustained use.

2.3.6 Mobile Work Environment

Existing studies often focus on e-services designed for office-based environments, with reliable internet connectivity and access to desktop computers. Marketeers in the ECIS program, however, operate in a mobile and dynamic work environment. Their workday may involve moving between different locations, setting up stalls in marketplaces, or visiting suppliers. This necessitates e-services that are adaptable and accessible on the go. Research is needed to explore how e-services can be tailored to this mobile work style:

Offline functionality: Some e-service features could be designed to function even without an internet connection. For instance, a mobile app for inventory management could allow marketeers to update stock levels offline and synchronize the data with the cloud-based system whenever an internet connection becomes available. This would ensure that even when operating in remote locations with unreliable internet, marketeers can maintain accurate inventory records and make informed decisions about restocking.

Data-efficient apps: Limited data plans can be a significant constraint for marketeers. Research can explore the development of lightweight mobile applications that minimize data consumption. This could involve optimizing image and video content for faster loading times and minimizing background data usage. Additionally, features could be prioritized based on their criticality, allowing marketeers to choose functionalities that best suit their needs and data limitations.

2.4. Lessons Learned from the Literature Review

Existing models like TAM and UTAUT offer a valuable springboard for understanding e-service adoption within the informal sector. These models highlight general user behavior patterns, emphasizing the importance of factors like perceived usefulness, ease of use, trust, and performance expectancy in influencing adoption. However, it's crucial to acknowledge that

these models were developed in contexts quite different from the informal sector. For instance, TAM and UTAUT were primarily tested with salaried employees in office environments with access to reliable technology and technical support. Marketeers in the informal sector, on the other hand, typically face challenges like limited formal education, a mobile work environment with constantly changing locations, and financial constraints that restrict access to smartphones, tablets, and reliable internet connections. To effectively apply these models to the informal sector, researchers need to tailor them by incorporating factors specific to this user group. This may involve adding constructs related to digital literacy skills, mobile data affordability, and the importance of user-friendly interfaces designed for offline functionality in areas with limited internet connectivity.

Marketeers in the informal sector operate under distinct circumstances compared to established businesses. Unlike their counterparts in formal office settings, informal marketeers rarely have access to dedicated workstations or desktop computers. Their workday is characterized by mobility, as they set up stalls in marketplaces, visit suppliers, and negotiate with customers across various locations. This necessitates e-service solutions that are adaptable and accessible on mobile devices. Furthermore, formal education levels within the informal sector can vary significantly. Some marketeers may possess basic literacy and numeracy skills, while others may have limited or no formal education. This highlights the need for e-services that are user-friendly and require minimal technical expertise. Additionally, financial constraints are a major hurdle for marketeers in the informal sector. Investing in smartphones, tablets, and reliable data plans can be a significant burden. Therefore, promoting e-service adoption within this sector requires cost-effective solutions, such as partnerships with mobile network operators to offer subsidized data bundles or exploring USSD (Unstructured Supplementary Service Data) technology, which allows access to basic e-services through feature phones with minimal data requirements.

Existing research often focuses on specific user segments or locations, limiting the applicability of findings to the broader Zambian context. For instance, a study on corporate customers of a single bank branch in Lusaka (Lufwendo & Phiri, 2020) may not reflect the challenges faced by small-scale farmers operating in rural areas with limited access to technology and internet connectivity. Similarly, a study on university students in Taiwan (Chao, 2019) may provide little insight into the needs and preferences of marketeers in Zambia's informal sector, who typically have lower levels of formal education and different business priorities. To gain a

comprehensive understanding of e-service adoption within the Zambian informal sector, future research efforts need to encompass a wider range of participants and geographical locations. This could involve studies that include marketeers from various regions of Zambia, representing different market sizes, product categories, and levels of digital literacy. By capturing a more diverse sample, researchers can develop a more nuanced understanding of the factors that influence e-service adoption within this sector and identify potential gaps or areas where targeted interventions might be most beneficial.

2.5 Chapter Summary

This chapter reviewed the literature by the other scholars and researchers on the subject matter of factors influencing adoption of ICTs offered by organisations to the public. From the discussions, most studies have focused on the importance of adoption of ICTs and some influences on its adoption. A few models that speak to the adoption of ICTs exist as can be seen in the table contained in this chapter as different frameworks speak to different circumstances that can be used to effectively determine the adoption of ICTs and what influences the adoption. This study therefore seeks to fill this research gap in the informal sector using UTAUT model.

CHAPTER 3

THEORETICAL AND CONCEPTUAL MODEL/FRAMEWORKS

3.1 Introduction

This chapter discusses the Theoretical background, and the conceptual frameworks and models related to this study. The chapter includes the theories that underpin this study. Based on these theories, the Chapter then looks at the conceptual Frameworks / Models. Finally, a conceptual framework/ model is developed based on the theoretical and conceptual background above. The hypotheses are then developed from the proposed model / framework. and concludes the ethical considerations.

3.2 Technology Acceptance Theoretical Frameworks

Adoption theory examines the individual and the choices an individual makes to accept or reject a particular innovation. The Technology Acceptance Model predicts that intentions lead to behaviour; however, intentions do not always guarantee behaviour. According to (Addo, 2014), Several technology acceptance theories and models have been applied to different phenomena and varying cultural settings in many studies, yielding varying results. Some of the results from these studies are consistent with the original postulations while others contradict them.

3.3 Technology Adoption Theories

This section shaded some light on various theories that were developed by different scholars regarding adoption and use of technology.

3.3.1 The Theory of Diffusion of Innovations

Proposed by Everett Rodgers explains how technology innovations are accepted and adopted by users. This model explains how an innovation is communicated through certain channels over time by a process known as diffusion.

3.3.2 Theory of Reasoned Action (TRA)

Was developed by Fishbein and Ajzen in 1975. It explains the relationship between attitude and behaviour in human actions. Attitudes are defined as the individual's evaluation of an object, belief as a link between an object and some attribute, whereas behaviour was looked at as being a result or intention. (Lufwendo Lishomwa, 2020). The theory introduces another factor in predicting user behaviour that of a person's subjective norm. See figure 3 below.

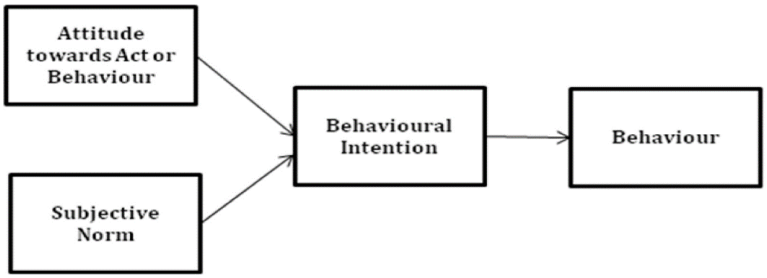

Figure 1 Theory of Reasoned Action (Fishbien & Ajzen,1975)

3.3.3 Theory of planned behavior (TPB)

Developments were made on the TRA as theorized by Fishbien and Ajzen in 1975. He proposed TPB which developed on the relationship between attitude and behaviour in human actions by introducing a new factor: perceived behavioural control which can be used to predict behaviour. Perceived behavioural control is explained as the behaviour that influences intention. It is a factor that is present in the theory of planned behaviour and not in the theory of reasoned action; this is the point of contrast for the two theories (Chimuka Mweetwa, 2019)

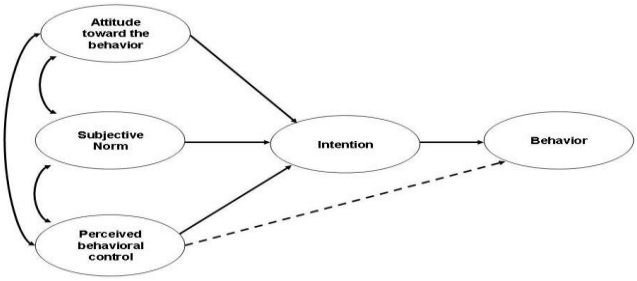

Figure 2 Theory of Planned Behaviour (Azjen, 1991)

3.3.4 TAM model (Davis 1989)

The theory can be used to explain user's behaviour towards the adoption and use of Technology. It was developed from the theory of reasoned action and so adapted some of its principles to the context of user acceptance of a system (Patience Njina Soneka, 2019)

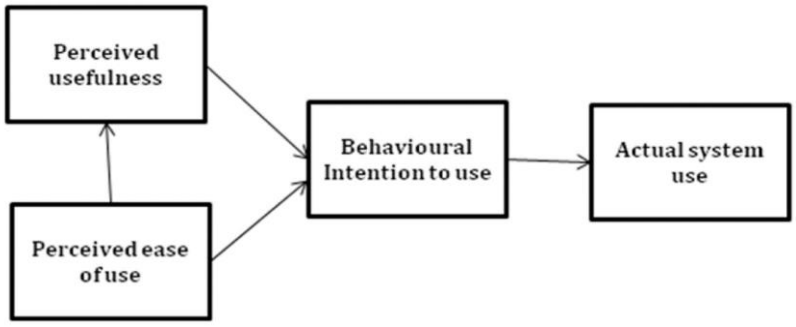

Figure 3: Technology Acceptance Model (TAM) (Davis, 1989)

3.3.5 Decomposed TPB

Another theory that can be used to explain user's adoption and use of new technologies is (Decomposed TPB) as theorized by Taylor and Todd in 1995. The theory contains three main factors that can be used to explain what influences behaviour intention and actual behaviour adoption. These factors include attitude, subjective norms, and perceived behaviour control. Other theories are an extensively used model in IB adoption studies, Perceived Characteristics of Innovation (PCI), Decomposed Theory of Planned Behaviour (DTPB), Theory of Perceived Risk (TPR), Theory of Innovation Resistance (TIR) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Phiri G. C., 2019).

3.3.6 UTAUT Model

The theoretical framework for the model, developed by Venkatesh et al. in 2003 has four independent variables and two dependent variables, has four main constructs. The framework

is suitable in this study because examines the acceptance of technology through behavioral intention.

a. ***Performance Expectancy:*** The degree to which a user believes that using the e-service will improve their performance and achieve desired outcomes (Mooya, 2021). This can encompass factors like increased sales, reduced costs, or improved efficiency.
b. ***Effort Expectancy:*** The perceived ease of use and learning associated with the e-service. Users are more likely to adopt e-services that they believe are user-friendly and require minimal technical expertise.
c. ***Social Influence:*** The extent to which a user's social circle (e.g., family, friends, colleagues) influences their decision to adopt an e-service (Njuka, 2021). Positive encouragement from peers or mentors can significantly increase adoption rates.
d. ***Facilitating Conditions:*** The availability of resources and infrastructure that support e-service use (Chumo, 2015). This includes factors like reliable internet access, compatible devices, and technical support.

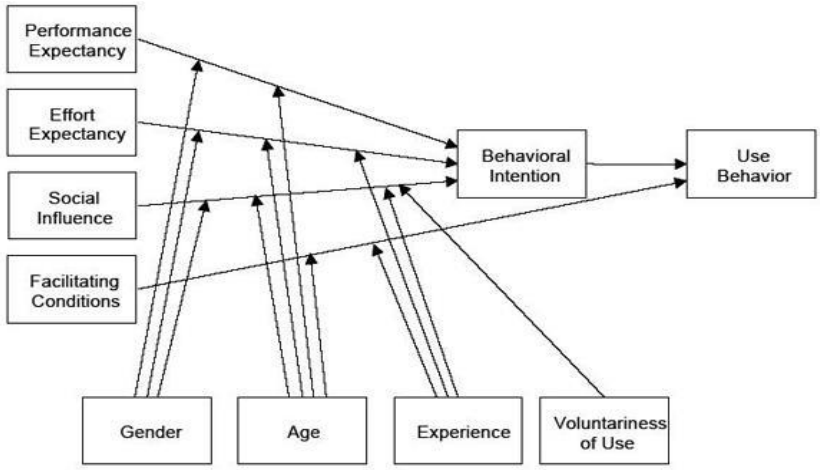

Figure 4: Conceptual Framework

1.1.7 Variables and their justification

Dependent Variable:

User's Behavior

Understanding a user's intention to adopt an e-service is crucial. This intention reflects their willingness to try and potentially integrate the service into their routine. In the case of informal marketeers, this could translate to signing up for a mobile banking app, registering for an online marketplace platform, or utilizing a mobile money transfer service. By focusing on intention, researchers can gauge the potential for e-service adoption within the informal sector and identify areas where interventions or awareness campaigns might be most effective.

Independent Variables:

Performance Expectancy

Informal marketeers are driven by the desire to improve their business performance. Performance expectancy in the UTAUT model captures this motivation. Marketeers might believe that e-services can help them achieve goals like: * Increased sales by reaching a wider customer base through online marketplaces. * Reduced costs through more efficient inventory management or bulk purchasing facilitated by e-commerce platforms. * Improved decision-making through access to real-time data on market trends and competitor pricing.

Effort Expectancy

Informal marketeers often face limited time and resources. The UTAUT model's effort expectancy variable acknowledges this constraint. If e-services are perceived as complex, time-consuming to learn, or requiring significant technical expertise, marketeers might be discouraged from adoption. However, e-services designed with a user-friendly interface, minimal technical requirements, and readily available training or support resources are more likely to be adopted by this user group.

Social Influence

Marketeers often operate within social networks, interacting with colleagues, suppliers, and customers. The UTAUT model's social influence variable recognizes the potential impact of these social circles. Positive experiences and recommendations from peers can significantly increase the likelihood of e-service adoption within the informal sector. Conversely, negative experiences or a lack of awareness among their social circle might deter marketeers from trying new e-services.

Facilitating Conditions

The availability of resources and infrastructure directly impacts e-service adoption. In the context of informal marketeers, facilitating conditions include: *Access to reliable and affordable internet connectivity:* Without consistent internet access, many e-services become unusable. *Ownership of compatible devices*: Smartphones or tablets with sufficient data storage and processing power are necessary for running e-service applications.

3.4 Conceptual Framework / Models

A conceptual framework is a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Bogdan Biklen, 2003). In conducting the study, a conceptual framework developed shows the relationship between the independent variables and dependent variable. In the Extension of Coverage to the Informal Sector, the UTAUT Model has variables that will be adopted with identifying factors that influence technology adoption by the informal sector in contributing to the Authority meeting its objectives.

3.5 Operationalization of Variables

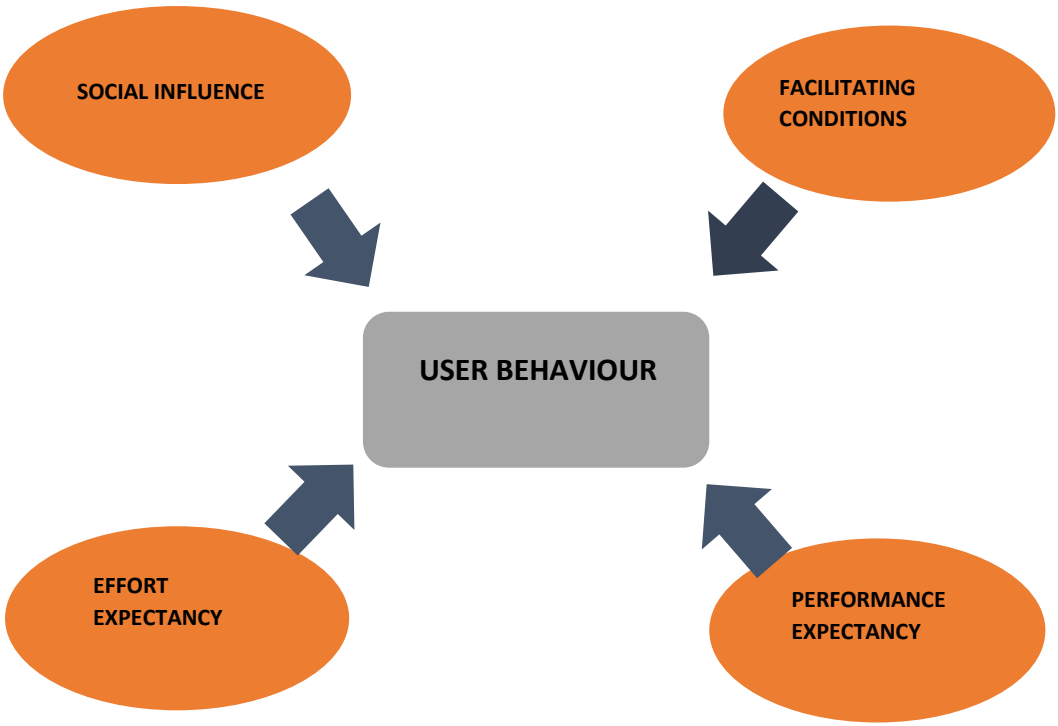

Figure 5: Proposed Conceptual Framework

According to the conceptual framework above, the adoption of ICTs is influenced by independent variables i.e. perceived usefulness, perceived ease of use, system trustworthiness and facilitating condition and dependent variables i.e. gender, age, level of education and their exposure and use of IT. Thereafter, these variable feed into and determine the behaviour intention of the affected party which then determines the adoption into the use of ICTs to access services provided by organisations.

3.6 Research Hypotheses

The following hypotheses were formulated based on the UTAUT model to guide the study.

1. H0 There is no relationship between performance expectancy and the use of e- NAPSA services through the NAPSA online portal

H1 There is a positive relationship between performance expectancy and the use of e-NAPSA services through the NAPSA online portal.

2. H0 There is no relationship between effort expectancy adoption and the use of e- NAPSA services through the NAPSA online portal

H1 There is a positive relationship between effort expectancy adoption and the use of e-NAPSA services through the NAPSA online portal.

3. H0 There is no relationship between social influence adoption and the use of e- NAPSA services through the NAPSA online portal

H1 There is a positive relationship between social influence adoption and the use of e-NAPSA services through the NAPSA online portal.

4. H0 There is no relationship between facilitating conditions and the use of e- NAPSA services through the NAPSA online portal

H1 There is a positive relationship between facilitating conditions and the use of e- NAPSA services through the NAPSA online portal.

5. H0 There is no relationship between behavioral intention and the use of e- NAPSA services through the NAPSA online portal

H1 There is a positive relationship between behavioral intention and the use of e- NAPSA services through the NAPSA online portal.

The hypotheses above were generated based on the UTAUT Model (Venkatesh et al. 2003), taking the PE, EE, SI, FC, and BI as independent variables and the adoption and actual use of e-tax services as the dependent variable. The five above hypotheses outlined were generated based on the UTAUT model and used in the study going forward.

3.7Chapter Summary

This chapter explained the theoretical framework from which the conceptual framework was construed. The theoretical framework explored other technology adoption models like the TRA, TAM, TPB, DTPB and TPR. The UTAUT model is a hybrid of TAM, TRA and other models, hence, its adoption in this study. UTAUT was used to develop hypothesis which were tested using correlational analysis to observe the extent of the relationship among the variables in the conceptual framework.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

The research adopts a mixed-methods approach, combining both qualitative and quantitative research methods. This approach allows for a comprehensive understanding of the factors influencing the adoption of e-services among informal sector workers and the effectiveness of NAPSA's ECIS program. A mixed-methods approach combines qualitative and quantitative research methods to provide a more comprehensive understanding of the research problem. In the context of your study, this approach will enable you to capture both the depth and breadth of factors influencing e-services adoption among informal sector workers, as well as assess the effectiveness of NAPSA's ECIS program quantitatively.

4.2 Philosophical approach of the study

The philosophical perspective of this study leans towards social constructivism, which posits that reality is socially constructed through human interactions and interpretations. In the context of e-services adoption by informal sector workers in Zambia, this perspective acknowledges that individuals' perceptions, beliefs, and experiences shape their understanding and acceptance of e-services. By adopting a social constructivist ontological stance, the study recognizes the diverse realities and contexts within which informal sector workers operate, allowing for an exploration of how these realities influence their adoption of e-services and interactions with NAPSA's ECIS program.

4.3 Application of Social Constructivism in the Study

Influence on Research Design

The social constructivist ontological perspective profoundly influences the research design by emphasizing the importance of understanding reality as socially constructed through human interactions and interpretations. In the context of this study, focusing on the adoption of e-

services by informal sector workers in Zambia, social constructivism guides the exploration of the diverse realities, perceptions, and experiences of these workers. The research design, therefore, prioritizes capturing the multifaceted and context-dependent nature of e-services adoption, acknowledging that individuals' interpretations and interactions shape their adoption decisions and experiences with NAPSA's ECIS program.

Data Collection and Analysis

Social constructivism also informs the data collection and analysis methods by highlighting the significance of qualitative approaches that allow for in-depth exploration and interpretation of participants' experiences and perceptions. Qualitative methods such as interviews and focus group discussions are particularly well-suited to uncovering the socially constructed meanings, beliefs, and attitudes that influence e-services adoption among informal sector workers. Through these qualitative methods, the study aims to capture the complex interplay of social, cultural, and economic factors that shape informal sector workers' interactions with e-services and NAPSA's ECIS program.

Interpretation of Findings

The social constructivist perspective further guides the interpretation of findings by encouraging a nuanced understanding of the socially constructed realities and contexts within which e-services adoption occurs. Instead of seeking universal truths or generalizable patterns, the study embraces the diversity and variability of participants' experiences and perspectives. The findings are interpreted in light of the socially constructed meanings and interpretations that participants ascribe to e-services, allowing for a richer and more contextually grounded understanding of the factors influencing adoption and the effectiveness of NAPSA's ECIS program.

Implications for Policy and Practice

Finally, the social constructivist philosophy has implications for policy and practice by highlighting the need to consider the socially constructed realities and perceptions of informal sector workers when designing and implementing e-services programs such as NAPSA's ECIS. Recognizing that individuals' interpretations and experiences shape their adoption decisions can inform the development of more inclusive, user-centered, and culturally sensitive e-services initiatives. By acknowledging and addressing the socially constructed barriers and

facilitators to e-services adoption, policymakers, organizations, and stakeholders can enhance the effectiveness and accessibility of e-services for informal sector workers in Zambia

4.4 Mixed-Methods Approach

i. Complementarity of Methods

The mixed-methods approach adopted in this study leverages the strengths of both qualitative and quantitative methods to provide a comprehensive understanding of the adoption of e-services by informal sector workers in Zambia. The qualitative methods, aligned with social constructivism, offer insights into the subjective experiences, perceptions, and social contexts that influence e-services adoption. On the other hand, quantitative methods enable the collection and analysis of numerical data to assess the extent and patterns of e-services adoption among a larger sample of informal sector workers, as well as the effectiveness of NAPSA's ECIS program.

ii. Sequential Exploratory Design

The sequential exploratory design of the mixed-methods approach involves collecting and analyzing qualitative data first, followed by quantitative data collection and analysis. This design allows for an initial exploration of the complex factors influencing e-services adoption through qualitative methods, which then informs the development of the quantitative instrument (survey). The qualitative findings guide the formulation of hypotheses and the selection of variables for the quantitative phase, ensuring that the survey questions are relevant, comprehensive, and grounded in the lived experiences of informal sector workers.

iii. Triangulation of Findings

One of the key strengths of the mixed-methods approach is triangulation, which involves comparing the qualitative and quantitative findings to validate and enrich the research findings. Triangulation enhances the credibility and reliability of the study by corroborating results from different data sources. For instance, qualitative insights into the barriers and facilitators of e-services adoption can be further explored and confirmed through quantitative analysis, providing a more robust and nuanced understanding of the factors influencing adoption and the effectiveness of NAPSA's ECIS program.

iv. Flexibility and Adaptability

The mixed methods approach also offers flexibility and adaptability, allowing for iterative refinement of research questions, methods, and interpretations based on preliminary findings. This flexibility is particularly beneficial when studying complex and multifaceted phenomena such as e-services adoption among informal sector workers, where a rigid or predetermined approach may not capture the dynamic interplay of factors at play. By adapting and refining the research methods and questions throughout the study, the mixed-methods approach ensures that the research remains responsive to the evolving complexities and nuances of the research context.

4.5 Research Design

The research design for this study employs a sequential exploratory mixed-methods approach, which combines qualitative and quantitative research methods. This design begins with qualitative data collection and analysis, followed by quantitative data collection and analysis. The sequential nature of this design allows for an initial in-depth exploration of the research problem through qualitative methods, which then informs the development and refinement of quantitative instruments and analysis.

A. Qualitative Phase

Qualitative Data Collection

Semi-Structured Interviews: Conducting semi-structured interviews with key stakeholders, including NAPSA officials, informal sector workers, and experts in e-services adoption.

Focus Group Discussions: Organizing focus group discussions with informal sector workers to gather collective insights and opinions on e-services adoption and NAPSA's ECIS program.

Thematic Analysis*:* Coding and analyzing interview transcripts and focus group discussions to identify themes, patterns, and insights related to e-services adoption, barriers, facilitators, and experiences with NAPSA's ECIS program.

Content Analysis: Analyzing qualitative data to understand the context, social dynamics, and complexities influencing e-services adoption among informal sector workers.

B. Quantitative Phase

Surveys: Distributing structured questionnaires to a sample of informal sector workers to collect quantitative data on their awareness, usage, and perceptions of e-services, as well as their experiences with NAPSA's ECIS program.

Descriptive Statistics: Calculating frequencies, percentages, means, and standard deviations to describe the quantitative data collected from the surveys.

Inferential Statistics: Conducting chi-square tests, t-tests, and regression analysis to examine relationships, associations, and predictors related to e-services adoption among informal sector workers.

Integration of Qualitative and Quantitative Phases

C. Triangulation

Comparing and Contrasting Findings: Triangulating qualitative and quantitative findings to validate, enrich, and corroborate the research findings.

Informing Quantitative Analysis: Using qualitative insights to inform and guide the quantitative analysis, ensuring that the survey questions and statistical tests are relevant, comprehensive, and grounded in the qualitative findings.

D. Ethical Considerations

Informed Consent: Ensuring that all participants provide informed consent before participating in the study.

Anonymity and Confidentiality: Protecting participants' identities and ensuring the confidentiality of their responses.

Data Protection: Adhering to data protection regulations and guidelines to safeguard participants' personal information and data.

Pilot Testing and Refinement

Pilot Testing: Conducting pilot tests of the interview guides, focus group discussion protocols, and survey instruments to ensure clarity, relevance, and reliability.

Refinement: Iteratively refining the research questions, methods, and instruments based on pilot testing and preliminary findings to enhance the validity and reliability of the study.

4.6 Target Population

The target population for this study comprises informal sector workers in Zambia who are potential users or current users of e-services, particularly focusing on those who interact with NAPSA's ECIS program. The informal sector in Zambia encompasses a diverse range of occupations, including street vendors, artisans, small-scale traders, and domestic workers, among others. These individuals often operate outside formal employment arrangements and may have limited access to traditional financial and social security services. Therefore, understanding their perspectives, experiences, and challenges related to e-services adoption is crucial for this study.

Given the diverse nature of the informal sector, a stratified random sampling technique will be employed to ensure representation across different sectors and regions in Zambia. The target population will be stratified based on occupation (e.g., street vendors, artisans, traders) and geographic location (e.g., urban, peri-urban, rural). Within each stratum, random sampling methods will be used to select participants, ensuring that the sample is both representative and diverse.

For the qualitative phase, purposive sampling will be used to select key stakeholders, including NAPSA officials, experts in e-services adoption, and informal sector workers with varying levels of experience and interaction with NAPSA's ECIS program. The purposive sampling approach allows for the selection of participants who can provide rich, in-depth insights into the research topic based on their roles, expertise, or experiences.

4.7 Sample Size and Sampling Technique

According to (Kasonde-Ngandu, 2014), sampling techniques or procedure is that part of the research plan that indicates how cases are to be selected for the study. The sample for the study included 301 marketeers from Kabuma market of Kanyama compound drawn from the target population 1409. These marketeers were selected using purposive sampling because they are the ones who on the platform for ECIS hence their experience was of value to this study since

they are the target. The factors affecting and how to improve e-service adoption cab be better understood from their engagement. The sample size was arrived at using (Kothari, 2004) as strategy for collecting, measuring, and analyzing data.

$n = z2\ pq\ d\ 2$

n: the desired sample size

z : the standard normal deviate usually set at 1.96 (which corresponds to the 95% confidence level)

p: the proportion in the target population to have a specific characteristic. If no estimate available set at 50% (or 0.50)

q: 1 − p

d: absolute precision or accuracy, normally set at 0.05.

The sample size in this study was.

$X = 1.962 \times 0.5 \times 0.5\ 0.052 = 384$

$n = 1409 \times 384\ (384 + 1409 - 1) = 541056\ 1792 = 301$

Therefore, a sample of 301 will be selected from the market.

4.8 Sampling Validation

Sampling validation is a critical aspect of research design to ensure that the chosen sampling method effectively represents the target population and provides reliable and valid results. In this study, several steps will be taken to validate the sampling approach:

Sample Size Calculation:

Conducting a sample size calculation to determine the appropriate number of participants needed to detect significant differences and associations in the quantitative phase.

Ensuring the sample size is sufficient for the qualitative phase to achieve data saturation, where no new insights or themes emerge from additional interviews or focus group discussions.

Stratification Check:

Verifying that the stratified random sampling adequately represents the diversity within the target population in terms of occupation and geographic location.

Adjusting the sampling approach if certain strata are underrepresented or overrepresented to ensure a balanced sample.

Random Sampling Verification:

Confirming that the random sampling method within each stratum is effectively implemented to avoid selection bias and ensure each member of the target population has an equal chance of being selected.

Checking the randomness of the sample by examining the distribution of key demographic and occupational characteristics among the selected participants.

Purposive Sampling Justification:

Providing clear justification for the purposive sampling of key stakeholders, ensuring that their expertise, roles, or experiences are relevant and contribute to the richness and depth of qualitative data.

Verifying that the purposive sampling aligns with the research objectives and enhances the comprehensiveness and relevance of the qualitative findings.

Sampling Representativeness:

Assessing the representativeness of the sample by comparing the demographic, occupational, and geographic characteristics of the sample with those of the target population.

Ensuring that the sample adequately captures the diversity and variability within the target population, enhancing the generalizability of the research findings.

Pilot Testing Feedback:

Incorporating feedback from pilot testing of the sampling methods and research instruments to identify and address any issues or challenges related to sampling.

Refining the sampling approach based on pilot testing results to enhance its validity and reliability.

4.9 Data Collection Instruments and Procedure

Qualitative Phase

Instruments:

Semi-Structured Interview Guide: A set of open-ended questions will be designed to explore participants' perceptions, experiences, and challenges related to e-services adoption and NAPSA's ECIS program. The interview guide will cover topics such as awareness, usage, benefits, barriers, and suggestions for improvement.

Focus Group Discussion Guide: A structured outline will be developed to facilitate group discussions among informal sector workers. The guide will include key questions and prompts to encourage participants to share their collective insights, opinions, and experiences regarding e-services adoption and NAPSA's ECIS program.

Procedure:

Participant Recruitment: Participants will be recruited through purposive sampling for key stakeholders and stratified random sampling for informal sector workers. Informed consent will be obtained from all participants prior to data collection.

Data Collection:

Interviews: Conducting face-to-face or virtual interviews with individual participants, audio-recording with permission, and taking detailed notes during the interviews.

Focus Group Discussions: Organizing group discussions either in-person or virtually, audio-recording the sessions with consent, and taking notes to capture the collective insights.

Data Management:

Transcribing the audio-recorded interviews and focus group discussions.

Organizing and storing the transcriptions and notes securely to ensure confidentiality and data protection.

Quantitative Phase

Instruments:

Structured Questionnaire*:* A questionnaire will be developed to collect quantitative data on participants' awareness, usage, perceptions, and experiences with e-services, as well as their interactions with NAPSA's ECIS program. The questionnaire will include closed-ended questions with options for multiple-choice, Likert scale, and demographic information.

Procedure:

Participant Recruitment: Participants will be selected through stratified random sampling to ensure representation across different sectors and regions. Informed consent will be obtained from all participants before administering the questionnaire.

Data Collection:

Questionnaire Administration: Distributing the structured questionnaire either online or in-person, depending on participants' preferences and accessibility.

Data Entry: Entering the collected data into a secure electronic database or statistical software for analysis.

Data Management:

Cleaning and coding the quantitative data to prepare it for analysis.

Storing the data securely and ensuring data protection in compliance with ethical guidelines and regulations.

Validation and Pilot Testing

Pilot Testing: Conducting pilot testing of the data collection instruments and procedures with a small group of participants to identify any issues, ambiguities, or challenges.

Feedback and Refinement: Incorporating feedback from pilot testing to refine and finalize the data collection instruments and procedures, ensuring clarity, relevance, and reliability.

4.10 Chapter Summary

This chapter covered the research methodology employed for this research. The chapter highlights research design, population of the study sampling and sample size, data collection methods and instruments used and finally data analysis.

CHAPTER 5

RESULTS

5.1 Introduction

This chapter describes and analyses the information generated from the data that was obtained from the administration of the questionnaires. The results will be presented using determined and suitable data analysis instruments and in this regard the study has made use of correlation statistics which determines the relationship between variables is presented in frequency distribution tables, charts and SPSS output for correlational values for the five independent variables against the dependent variable which is the usage of e-NAPSA services by the marketeers and pie charts showing absolute and relative values. Following the 301 survey questionnaires administered to participants who are marketeers at Kabuma market, the questionnaires distributed yielded a 100% percent turnout. Tables, charts, and graphs were used to present the results. SPSS and excel were used to analyse the data which was collected.

5.2 Quantitative Phase

5.2.1 Descriptive Statistics

The results for descriptive statistics show the mean score rating for the five variables which are performance expectancy, effort expectancy, social influence, facilitating conditions and behavioural intentions. According to Creswell, (2014), Descriptive statistics are used to summarize data in an organized manner by describing the relationship between variables in a sample or population. Calculating descriptive statistics represents a vital first step when conducting research and should always occur before making inferential statistical comparisons. Descriptive statistics include types of variables (nominal, ordinal, interval, and ratio) as well as measures of frequency, central tendency, dispersion/variation, and position. Since descriptive statistics condense data into a simpler summary.

5.2.1.1 Demographic Data

The presentation of the data from the questionnaire administered to respondents began with the identification of the respondents in terms of their gender, educational background, and age.

5.2.1.2 Gender

The demographic data shows that many of the respondents from the marketeers where female with a frequency of 211 out of 301 respondents which accounted for 70.1% of the total respondents with males having a frequency of 90 out of 301 accounting 29.9%.

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	90	29.9	29.9	29.9
	Female	211	70.1	70.1	100.0
	Total	301	100.0	100.0	

Table 1: Gender distribution

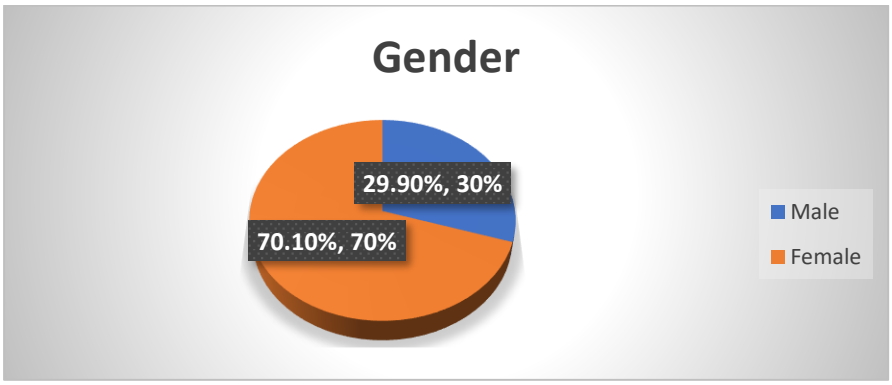

Figure 6: Gender

5.2.1.3 Age

The most frequent age group of the respondents was below or equal to the age of 20 represent a 49.2 percent with the frequency 148 respondents and the lowest age group is 60 and above representing the frequency of 5 and a percentage of 1.7 percent as indicated in the table below.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 20	148	49.2	49.2	49.2
	21 – 30	75	24.9	24.9	74.1
	31 – 40	56	18.6	18.6	92.7
	41 – 50	11	3.7	3.7	96.3
	51 – 60	6	2.0	2.0	98.3
	61 +	5	1.7	1.7	100.0
	Total	301	100.0	100.0	

Table 2: Age Distribution

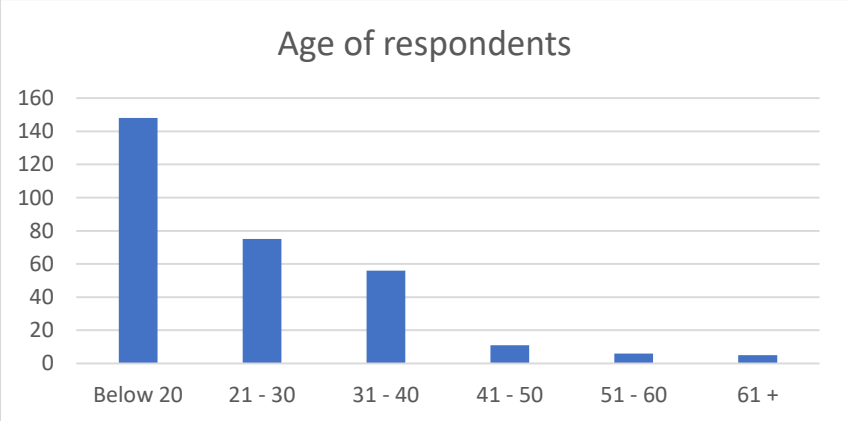

Figure 7: Age

5.2.1.4 Education level

The marketeers at Kabuma were subdivided into three major categories in terms of education leaving a gap for certificate holders. The most frequent traders is Secondary and High School (SHS) with the frequency of 246 representing 81.7%, this was followed by degree holders with a frequency 45 representing 15% and the least are degree holders with only 10 participants accounting for 3.3%.

Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SHS	246	81.7	81.7	81.7
	Diploma	45	15.0	15.0	96.7
	Degree	10	3.3	3.3	100.0
	Total	301	100.0	100.0	

Table 3: Level of Education Distribution

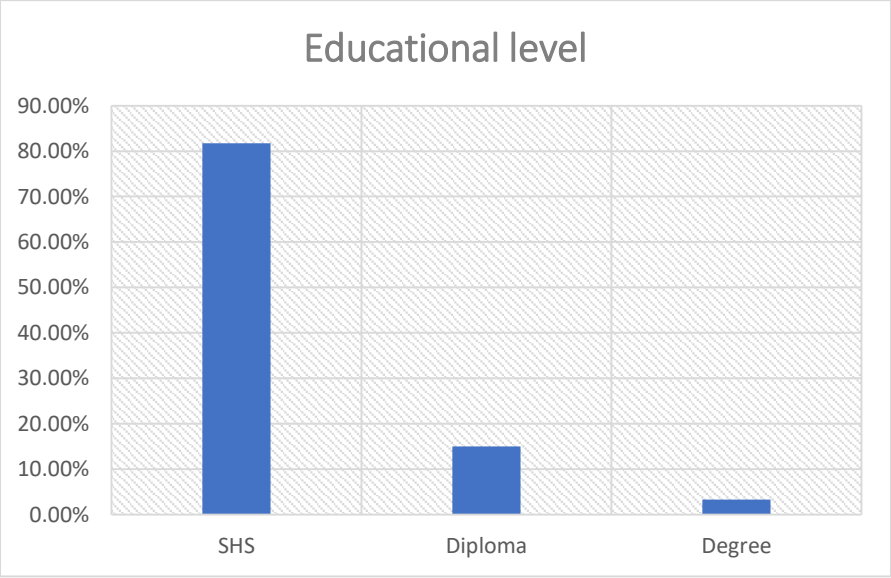

Figure 8: Education Level

5.3 Descriptive Statistics Results

According to Creswell, (2014), Descriptive statistics are used to summarize data in an organized manner by describing the relationship between variables in a sample or population. Calculating descriptive statistics represents a vital first step when conducting research and should always occur before making inferential statistical comparisons. Descriptive statistics include types of variables (nominal, ordinal, interval, and ratio) as well as measures of frequency, central tendency, dispersion/variation, and position. Since descriptive statistics condense data into a simpler summary.

The results for descriptive statistics show the mean score rating for the five variables which are performance expectancy, effort expectancy, social influence, facilitating conditions and behavioural intentions. The rating ranges from 1 to 5 with the highest number indicating excellent results. The highest mean is 4.1462 for performance expectancy and the lowest being the usage of e-services for NAPSA by marketeers. This means that the marketers believe that the usage of e-NAPSA services platforms would yield positive results and the conflicting results from the actual usage of e-NAPSA services with lowest mean of 1.4485 indicating that the adoption of system usage would not benefit the marketeers as shown in the table below:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Performance Expectancy	301	2.00	5.00	4.1462	1.20495
Social Influence	301	1.00	5.00	1.8837	1.51320
Effort Expectancy	301	1.00	5.00	3.4850	1.26119
Facilitating Conditions	301	1.00	5.00	3.6578	1.06732
Behavioral Intention	301	1.00	4.00	2.1362	.57566
The Usage of NAPSA E-services By Marketeers	301	1.00	4.00	1.4485	.97374
Valid N (listwise)	301				

Table 4: Descriptive Statistics

5.4 Hypothesis Testing (Inference Statistics)

Correlation is used to establish if there is a mutual relationship between two or more things especially when one causes or influences the other. In this study the researcher used Pearsons's correlation. According to Creswell, (2004), inferential statistics is a branch of statistics that makes the use of various analytical tools to draw inferences about the population data from sample data. Apart from inferential statistics, descriptive statistics forms another branch of statistics. Inferential statistics help to draw conclusions about the population while descriptive statistics summarizes the features of the data set. There are two main types of inferential statistics - hypothesis testing and regression analysis. The samples chosen in inferential statistics need to be representative of the entire population.

The basis of inferential statistics from which hypothesis were drawn is based on the theoretical model of UTAUT suggests that the actual use of technology is determined by behavioural intention. The perceived likelihood of adopting the technology is dependent on the direct effect of four key constructs, namely performance expectancy, effort expectancy, social influence, and facilitating conditions. The effect of predictors is moderated by age, gender, experience, and voluntariness of use (Venkatesh et al., 2003).

5.4.1 Hypothesis 1 (H1)

The results for inferential statistics indicate the relationship between the five variables which are performance expectancy, effort expectancy, social influence, facilitating conditions, behavioural intentions, and actual usage.

5.4.2 Correlational results for PE, EE, SI, FC and BI against Actual usage

Performance expectant and actual usage

Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance (Venkatesh et al., 2003). Performance expectancy is based on the constructs from Technology Acceptance Model (TAM), TAM2, Combined TAM and the Theory of Planned Behaviour (CTAMTPB), Motivational Model (MM), the model of PC utilization (MPCU), Innovation Diffusion Theory (IDT) and Social Cognitive Theory (SCT) (i.e., perceived usefulness, extrinsic motivation, job-fit, relative advantage, and outcome expectations). It is the strongest predictor of use intention and is significant in both voluntary and mandatory settings (Zhou, Lu & Wang, 2010; Venkatesh, Thong & Xu, 2016).

Correlations

		Performance Expectancy	The Usage of NAPSA E service By Marketeers
Performance Expectancy	Pearson Correlation	1	-.329**
	Sig. (2-tailed)		.000
	N	301	301
The Usage of NAPSA E-services by Marketeers	Pearson Correlation	-.329**	1
	Sig. (2-tailed)	.000	
	N	301	301

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5: Performance Expectancy Correlation

The results from SPSS output indicate that the relationship between performance expectancy and the use of e-NAPSA services by the marketeers. The correlation coefficient of -0.329 indicates a negative relationship between performance expectancy and the use of e-NAPSA services by the marketeers. This suggests that marketeers are of the view that the adoption of the system based on how it is going to perform might not yield better results for them.

The results above are consistent with the findings in the study conducted by Gift and Jackson which indicated that, there is a very weak and positive relationship between performance expectancy and adoption/use of e-PACRA services through the Government Services Bus (R Square =0.06, n=132, p>.05). This means that only 6 percent of the adoption/use of the e-PACRA services through the GSB is determined by performance expectancy but this cannot be taken literally because the relationship is not significant.

Effort Expectant and actual usage

Effort expectancy is defined as the degree of ease associated with the use of the

system; (Venkatesh et al., 2003). Effort Expectancy is constructed from perceived ease of use and complexity driven from TAM, MPCU, IDT, which share a similarity in definitions and scales. The effect of the construct becomes nonsignificant after extended usage of technology (Gupta, Dasgupta & Gupta, 2008; Chauhan & Jaiswal, 2016).

Correlations

		The Usage of NAPSA E-services by Marketeers	Effort Expectancy
The usage of NAPSA E-services by Marketeers	Pearson Correlation	1	-.096
	Sig. (2-tailed)		.095
	N	301	301
Effort Expectancy	Pearson Correlation	-.096	1
	Sig. (2-tailed)	.095	
	N	301	301

Table 6: Effort Expectancy Correlation

Effort expectance is not significant as indicated in the table above with the Pearson correlation of -0.096. From this it can be deduced that the marketeer's effort expectant does not influence the usage of e-NAPSA services. The P-Value of 0.095 ; 0.05 and 0.01 this suggests that there is no significant relationship between Effort expectancy and the adoption of E-NAPSA services by the marketeers. Therefore, the degree of ease associated with the use of the system is weak in relations to effort expectancy.

Social influence and actual usage

Correlations

		The usage of NAPSA E services by Marketeers	Social Influence
The usage of NAPSA E services by Marketeers	Pearson Correlation	1	.042
	Sig. (2-tailed)		.465
	N	301	301
Social Influence	Pearson Correlation	.042	1
	Sig. (2-tailed)	.465	
	N	301	301

Table 7: Social Influence Correlation

Social influence is not significant as indicated in the table above with the Pearson correlation of 0.042. From this it can be deduced that the marketeers are not influenced by society's perception on the usage of e-NAPSA service.

According to Venkatesh et al., (2003) Social Influence is defined as the degree to which an individual perceives that important others believe he or she should use the new systems. Social influence is similar to the subjective norms, social factors and image constructs used in TRA, TAM2, TPB, CTAMTPB, MPCU, IDT in the way that they denote that the behaviour of people is adjusted to the perception of others about them. The effect of social influence is significant when the use of technology is mandated (Venkatesh et al., 2003).

The P-Value obtained of 0.456 is far much greater than the levels of significance of 0.05 suggesting that there is no significant influence exerted on the adoption of E-NAPSA services by the marketers. This can be evidenced by the resistance NAPSA is facing in implementing its new technologies with the quest to capture the informal sector.

Facilitating conditions and the usage of e-NAPSA services

Correlations

		The Usage of NAPSA E-service by Marketeers	Facilitating Conditions
The usage of NAPSA E-services by Marketeers	Pearson Correlation	1	.312**
	Sig. (2-tailed)		.000
	N	301	301
Facilitating Conditions	Pearson Correlation	.312**	1
	Sig. (2-tailed)	.000	
	N	301	301

**. Correlation is significant at the 0.01 level (2-tailed).

Table 8: Facilitating Condition Correlation

The results from SPSS output indicate that the relationship between Facilitating conditions and the use of e-NAPSA services by the marketeers. The correlation coefficient of 0.312 indicates a positive relationship between facilitating conditions and the use of e-NAPSA services by the marketeers. This suggests that marketeers are of the view that the adoption of the e-NAPSA system based on the facilitating conditions might yield better results for them.

The P-Value of 0.000 is below the level of significance of 0.01 which suggests that, there is a significant relationship between the adoption and use of E-NAPSA services and the facilitating conditions. According to Venkatesh et al., 2003), facilitating conditions is defined as the degree to which an individual believes that an organization's and technical infrastructure exists to support the use of the system. The facilitating conditions construct is formed from compatibility, perceived behavioural control and facilitating conditions constructs drawn from TPB, CTAMTPB, MPCU and IDT. Facilitating conditions have a direct positive effect on intention to use, but after initial use, the effect becomes nonsignificant. Therefore, the model proposes that facilitating conditions have a direct significant effect on use behaviour (Venkatesh et al., 2003).

Behavioural intentions and the usage of e-NAPSA services

Correlations

		The Usage of NAPSA E-services by Marketeers	Behavioral Intention
The Usage of NAPSA E-services by Marketeers	Pearson Correlation	1	-.181**
	Sig. (2-tailed)		.002
	N	301	301
Behavioural Intention	Pearson Correlation	-.181**	1
	Sig. (2-tailed)	.002	
	N	301	301

**. Correlation is significant at the 0.01 level (2-tailed).

Table 9: Behavioural Intention Correlation

The results from SPSS output indicate that the relationship between Behavioural Intentions and the use of e-NAPSA services by the marketeers. The correlation coefficient of -0.181 indicates a negative relationship between Behavioural Intentions and the use of e-NAPSA services by the marketeers. This suggests that marketeers are of the view that the adoption of the system based on the behaviour of the marketeers towards the usage e-NAPSA services might not yield better results for them. With the P-value of 0.002 from SPSS results which is below the significance value of 0.01 and this suggests behavioural intention has a negative significant influence on the adoption of E-NAPSA services by marketeers.

SUMMARY OF CORRELATIONAL RESULTS

Correlations

		Perfomance_ Expectancy	Effort_ Expectancy	Social_ Influence	Facilitating_ Conditions	Behavioral_ Intention	The_Usage_ Of_NAPSA_ E_services_ By_ Marketeers
Perfomance_Expectancy	Pearson Correlation	1	.076	.210**	-.399**	.216**	-.329**
	Sig. (2-tailed)		.188	.000	.000	.000	.000
	N	301	301	301	301	301	301
Effort_Expectancy	Pearson Correlation	.076	1	-.252**	.012	.184**	-.096
	Sig. (2-tailed)	.188		.000	.832	.001	.095
	N	301	301	301	301	301	301
Social_Influence	Pearson Correlation	.210**	-.252**	1	.157**	-.039	.042
	Sig. (2-tailed)	.000	.000		.006	.499	.465
	N	301	301	301	301	301	301
Facilitating_Conditions	Pearson Correlation	-.399**	.012	.157**	1	-.423**	.312**
	Sig. (2-tailed)	.000	.832	.006		.000	.000
	N	301	301	301	301	301	301
Behavioral_Intention	Pearson Correlation	.216**	.184**	-.039	-.423**	1	-.181**
	Sig. (2-tailed)	.000	.001	.499	.000		.002
	N	301	301	301	301	301	301
The_Usage_Of_NAPSA_ E_services_By_ Marketeers	Pearson Correlation	-.329**	-.096	.042	.312**	-.181**	1
	Sig. (2-tailed)	.000	.095	.465	.000	.002	
	N	301	301	301	301	301	301

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10: Correlation Summary

5.5 Qualitative Phase

How the themes and codes were generated

The generation of themes and codes for the qualitative phase of this study was a systematic and iterative process, grounded in the research objectives and the data collected from the semi-structured interviews and focus group discussions. The themes and codes were developed through a careful reading and re-reading of the qualitative data to identify patterns, recurring ideas, and key insights related to e-services adoption and NAPSA's ECIS program.

Initially, an open-coding approach was employed, where the data from the interviews and focus group discussions were analyzed line-by-line to identify initial codes that represented the participants' responses and perspectives. This process involved assigning descriptive labels or codes to specific phrases, sentences, or paragraphs that captured the essence of the participants' experiences, perceptions, and attitudes towards e-services adoption and their interactions with NAPSA's ECIS program.

Following the open-coding phase, the identified codes were grouped into broader categories or themes based on their similarities and relationships. This axial coding approach allowed for the organization and structuring of the codes into meaningful clusters that represented overarching topics or areas of interest. For instance, codes related to participants' awareness and knowledge of e-services were grouped under the theme "Awareness and Knowledge," while codes related to perceived benefits and barriers were categorized under the theme "Perceptions and Attitudes."

The generation of themes and codes was further refined through constant comparison and revisiting of the data to ensure that they accurately reflected the depth and richness of the qualitative findings. This iterative process involved moving back and forth between the data and the emerging themes and codes to validate and refine their relevance and coherence.

Additionally, the themes and codes were reviewed and discussed among the research team to ensure consensus and agreement on their interpretation and representation of the qualitative data. Any discrepancies or disagreements were resolved through discussion and consensus-building to ensure the consistency and reliability of the generated themes and codes.

Themes	Codes
Awareness and Knowledge	- Awareness of e-services - Knowledge of NAPSA’s ECIS program - Sources of information
Usage and Interaction	- Frequency of e-services usage - Types of e-services used - Interactions with NAPSA’s ECIS program
Impact and Benefits	- Economic benefits - Social benefits - Impact on business operations
Perceptions and Attitudes	- Perceived benefits of e-services - Perceived barriers to e-services adoption - Attitudes towards NAPSA’s ECIS program
Challenges and Barriers	- Technical challenges - Financial constraints

	- Trust and security concerns
Recommendations and Suggestions	- Suggestions for improving e-services - Recommendations for NAPSA's ECIS program
Support and Assistance	- Need for training and support - Availability of assistance - Satisfaction with support services

Awareness and Knowledge

Awareness of e-services: This code refers to participants' awareness of the existence and availability of e-services in Zambia. It captures whether participants know about the various e-services offered and how to access them.

Knowledge of NAPSA's ECIS program: This code focuses on participants' knowledge specifically about NAPSA's ECIS program. It explores whether participants are aware of the program, its objectives, benefits, and how it operates.

Sources of information: This code pertains to the channels or sources from which participants obtain information about e-services and NAPSA's ECIS program. It could include sources like television, radio, social media, word of mouth, or official communications from NAPSA.

Usage and Interaction

Frequency of e-services usage: This code captures how often participants use e-services. It helps to understand the level of engagement and reliance on e-services among informal sector workers.

Types of e-services used*:* This code identifies the specific types or categories of e-services that participants use, such as online payments, mobile banking, online registration, etc.

Interactions with NAPSA's ECIS program: This code explores participants' interactions and experiences with NAPSA's ECIS program. It includes their engagement with the program, utilization of its services, and overall satisfaction with their interactions.

Perceptions and Attitudes

Perceived benefits of e-services: This code focuses on participants' perceptions of the benefits or advantages of using e-services. It could include convenience, time-saving, cost-effectiveness, etc.

Perceived barriers to e-services adoption: This code identifies the perceived obstacles or challenges that hinder participants from adopting e-services. It could encompass factors like lack of awareness, technical challenges, trust issues, etc.

Attitudes towards NAPSA's ECIS program: This code captures participants' attitudes and feelings towards NAPSA's ECIS program. It explores whether participants view the program positively, negatively, or neutrally and the reasons behind their attitudes.

Challenges and Barriers

Technical challenges: This code refers to the technical issues or difficulties participants encounter when using e-services, such as website glitches, app malfunctions, or connectivity issues.

Financial constraints: This code captures the financial barriers that hinder participants from accessing or utilizing e-services. It could include factors like transaction fees, costs of digital devices, or internet charges.

Trust and security concerns: This code identifies participants' concerns related to the security and privacy of their information when using e-services. It explores whether participants trust the platforms and believe that their data is secure.

Support and Assistance

Need for training and support: This code focuses on participants' need for training or assistance in using e-services. It captures whether participants feel adequately equipped to use e-services independently or require additional support.

Availability of assistance: This code pertains to the availability and accessibility of support or assistance when participants encounter issues or difficulties with e-services.

Satisfaction with support services: This code measures participants' satisfaction levels with the support or assistance they receive when using e-services. It explores whether participants are satisfied with the quality, responsiveness, and effectiveness of the support services.

Recommendations and Suggestions

Suggestions for improving e-services: This code captures participants' suggestions or ideas for enhancing the usability, accessibility, and effectiveness of e-services.

Recommendations for NAPSA's ECIS program: This code focuses on participants' recommendations or suggestions for improving NAPSA's ECIS program. It could include ideas for new features, better communication, or broader outreach.

Impact and Benefits

Economic benefits: This code identifies the economic advantages or benefits that participants perceive or experience as a result of using e-services. It could include cost savings, increased income, or improved business efficiency.

Social benefits: This code captures the social benefits or impacts of e-services adoption, such as increased social connectivity, improved access to information, or enhanced quality of life.

Impact on business operations: This code focuses on the effects of e-services adoption on participants' business operations or activities. It explores whether e-services have a positive, negative, or neutral impact on their business efficiency, customer satisfaction, and overall success.

5.6 Chapter Summary

Research results chapter overview gives us descriptive and correlation statistics for the research. Descriptive data using dependent variables gave gender, age and education level statistics while correlation statistics from the Hypothesis analysis spoke to independent variables found in the UTAUT model used in the research.

CHAPTER 6

DISCUSSION AND CONCLUSIONS

6.1 Introduction

This chapter presents answers to the study questions in the first chapter. The conclusions and answers to the study questions are founded on descriptive and correlation analysis results. The chapter also recommends how factors that influence the adoption of eservices can be enhanced to improve organisational performance.

6.2 Educational Levels and Usage of e-NAPSA

The presented data on education levels reveals some interesting insights about the marketeers at Kabuma market:

Dominance of Secondary/High School Education

The overwhelming majority (81.7%) of marketeers possess a secondary or high school education (SHS). This suggests a relatively high level of basic education within this group. It's important to consider the specific curriculum and skillsets emphasized within Zambian secondary/high schools. Do these programs equip students with the foundational digital literacy skills necessary to navigate e-services effectively? Understanding the educational background of the marketeers can inform the development of training programs tailored to their specific needs. For instance, if the curriculum focused heavily on traditional subjects like mathematics and sciences with less emphasis on computer skills and digital literacy, then training programs for e-NAPSA services might need to incorporate basic digital literacy components alongside specific instructions on using the platform.

Limited Representation of Higher Education

Only a small percentage of marketeers hold diplomas (15.0%) or degrees (3.3%). This highlights a gap in representation from individuals with higher education backgrounds. While formal education can play a role in technology adoption, it's not the only factor. Individuals with higher education might possess stronger research skills and be more comfortable seeking

out information and learning new technologies on their own. However, it's important to acknowledge that digital literacy can be acquired through various means, not just formal education. Marketeers with lower levels of formal education might have gained significant digital literacy skills through personal use of technology in their daily lives or prior exposure to similar e-services. Further research is needed to explore the role of digital literacy as a mediating factor between education level and e-NAPSA service adoption.

6.2.1 Implications of this

Technology Adoption

The level of education could be indirectly linked to the adoption of e-services like e-NAPSA. Marketeers with higher education backgrounds might be more comfortable with technology in general and possess stronger digital literacy skills. This could make them quicker to adapt to new systems like e-NAPSA, navigate user interfaces, and grasp the technical aspects of the service. However, it's important to note that digital literacy can be acquired through various means, not just formal education. For instance, some marketeers with lower levels of formal education might have gained significant digital literacy skills through personal use of technology in their daily lives or prior exposure to similar e-services. Further research is needed to confirm this connection and explore the role of digital literacy as a mediating factor between education level and e-NAPSA service adoption.

Training Needs

Understanding the education levels can help tailor training programs for e-NAPSA services. If a significant portion of marketeers have limited formal education, training materials and user guides might need to be designed with clear, concise language and visuals to ensure comprehension. Additionally, instructors should be prepared to explain technical concepts in a way that is easy to understand for users with varying levels of digital literacy. This may involve incorporating step-by-step demonstrations, allowing ample time for hands-on practice, and providing ongoing support to address any user questions or challenges that arise.

6.3 Gender and e-NAPSA Usage

The table you provided reveals a significant gender disparity among the marketeers at Kabuma market. Here's a breakdown of the key points and some areas for further exploration:

Predominantly Female: The data shows a clear dominance of female marketeers, with females accounting for 70.1% of the respondents compared to 29.9% males. This finding is worth investigating further to understand the underlying reasons behind this gender imbalance in the market. There could be several factors at play, including: Cultural norms in some societies might influence the types of businesses women are more likely to participate in. Exploring the types of goods sold by male versus female marketeers could shed light on potential cultural factors at play. For instance, if females are traditionally associated with selling certain goods (e.g., textiles, foodstuffs), this could explain their higher representation in the market. There might be gender-specific barriers to entry for certain businesses within the market. Research could delve into any challenges faced by male marketeers, such as access to capital, licensing requirements, or societal expectations regarding male participation in informal markets. For example, if men are expected to pursue careers in formal sectors, this could limit their participation in informal markets like Kabuma.

6.3.1 Implications for e-NAPSA Adoption:

Tailored Outreach: Understanding the gender makeup of the market is crucial for developing targeted outreach strategies for e-NAPSA service adoption. Training programs, user guides, or informational materials could be designed with specific considerations for female learning styles and preferences. For instance, incorporating visuals and practical demonstrations might be more effective than text-heavy materials. Additionally, female role models who have successfully adopted e-NAPSA services could be featured in promotional campaigns to inspire others.

6.4 On Correlation between Behaviour and e-NAPSA services usage

The presented table reveals an unexpected finding: a statistically significant negative correlation (-0.181) between behavioral intention and the usage of e-NAPSA services among marketeers. This suggests that even if marketeers initially express a positive intention to use

the e-NAPSA services, their actual usage might be lower than expected. There could be several reasons for this gap between intention and behavior.

Marketeers might have good intentions to utilize the e-NAPSA services, but their enthusiasm could be dampened by encountering a complex user interface. An overly technical interface can be daunting for users with limited experience or digital literacy. Additionally, a lack of proper training or user guides could leave them feeling unsure of how to navigate the system and extract its full benefits. Furthermore, compatibility issues between the e-NAPSA platform and the devices commonly used by marketeers (e.g., older smartphones or feature phones with limited functionality) could also create a barrier to usage.

Even with the best intentions, marketeers might not see a clear advantage in using the e-NAPSA services. If the services don't address their specific needs or offer significant time-saving benefits compared to traditional methods, their motivation to adopt the new system will wane. For instance, if the e-NAPSA services primarily focus on functionalities that are not relevant to a marketeer's daily tasks, they might be less inclined to invest time in learning and using the platform.

Factors beyond intention, such as unreliable internet connectivity or lack of access to necessary devices, could also hinder actual usage. Even if marketeers have a positive attitude towards e-NAPSA services, their ability to use them might be limited by inconsistent internet access in their workplaces or remote locations. Similarly, if they lack access to smartphones or tablets that meet the minimum technical requirements for the e-NAPSA platform, their good intentions to use the service will be unrealized.

6.5 On Correlation between Efficiency Expectancy and Usage

The correlation table suggests a weak negative relationship (-0.096) between effort expectancy and the usage of e-NAPSA services by marketeers. While statistically insignificant (p-value = 0.095), this finding offers some insights.

Effort expectancy refers to the perceived ease of use associated with a system. Here, it likely reflects how easy marketeers believe the e-NAPSA services are to learn and navigate. The weak correlation suggests that perceived ease of use might not be a major factor influencing actual usage in this context.

Several reasons could explain this weak connection, research suggests that effort expectancy's influence weakens with extended technology use. Marketeers who initially perceived the

system as complex might have gained some level of comfort and fluency over time. With increased experience, even if the system wasn't initially intuitive, they may have developed workarounds or become accustomed to the interface. This could lead to a less significant impact of perceived ease of use on actual usage in the long run.

Other factors beyond perceived ease of use might play a more significant role in determining actual usage. As discussed previously, factors like perceived benefits and external barriers (connectivity, device access) could be more influential than initial ease of use. For instance, if marketeers find the e-NAPSA services don't offer significant time-saving advantages compared to traditional methods, or if they lack the necessary devices or reliable internet access to use the platform effectively, their initial perception of ease of use might become irrelevant to their ultimate decision to use the system.

6.5.1 Awareness and Knowledge

Varying Levels of Awareness

The findings indicated a spectrum of awareness levels among participants. Some participants displayed a robust understanding of the various e-services available in Zambia, ranging from mobile banking and online payments to digital registration services. These participants often accessed these services for their business operations or personal transactions, reflecting a proactive approach towards digital adoption.

Conversely, a significant portion of participants exhibited limited awareness, with some even unaware of the existence of e-services or NAPSA's ECIS program. These participants primarily relied on word of mouth, informal networks, or occasional encounters with digital platforms for their limited knowledge. This disparity in awareness underscores the uneven distribution of information and the existence of information silos within the informal sector.

Information Sources and Channels

The sources of information varied widely among participants, with some relying on traditional media like television and radio for occasional updates, while others depended on informal networks, peers, or family members for insights and recommendations. Few participants

mentioned official communications from NAPSA or other institutions as a source of information, indicating a potential gap in targeted communication strategies.

Need for Targeted Awareness Campaigns and Educational Initiatives

The findings highlight the pressing need for targeted awareness campaigns and educational initiatives tailored to the needs and preferences of informal sector workers. Given the diverse information sources and varying levels of awareness, a multi-channel approach incorporating traditional media, digital platforms, community engagement, and peer networks can be effective in reaching a broader audience.

6.6 Usage and Interaction

In the realm of usage and interaction with e-services, the qualitative findings revealed a nuanced picture of informal sector workers' engagement levels and preferences. While there was a noticeable trend towards the adoption of basic e-services such as mobile payments and online banking for daily transactions, the utilization of NAPSA's ECIS program was relatively subdued. This disparity suggests a potential mismatch between the services offered by the ECIS program and the specific needs or priorities of informal sector workers.

One plausible explanation for this discrepancy could be the perceived relevance and accessibility of NAPSA's ECIS program to this demographic. It is possible that the ECIS program's offerings may not align closely enough with the immediate concerns or challenges faced by informal sector workers, leading to lower engagement levels. To address this, there is a pressing need to reevaluate and potentially redesign the ECIS program's services to be more responsive to the unique needs and preferences of this demographic.

Additionally, the qualitative data hinted at the importance of user experience and interface design in influencing usage patterns. Participants expressed a preference for simple, intuitive, and easily navigable platforms, highlighting the role of user-centric design principles in fostering greater engagement. Therefore, investing in user experience research and design could prove beneficial in enhancing the accessibility and usability of the ECIS program, thereby encouraging more frequent and meaningful interactions among informal sector workers.

Furthermore, the qualitative insights also shed light on the role of awareness and education in shaping usage patterns. Participants who demonstrated a higher level of engagement with e-services often cited awareness campaigns or educational initiatives as catalysts for their adoption. This underscores the potential impact of targeted awareness and educational programs in driving usage and interaction with e-services. Collaborative efforts involving government agencies, financial institutions, and community organizations could be instrumental in promoting the ECIS program's services effectively and expanding its reach among informal sector workers.

6.6.1 Perceptions and Attitudes

The theme of perceptions and attitudes towards e-services among informal sector workers emerged as a pivotal aspect influencing adoption and engagement. The qualitative data revealed a complex interplay of optimism, caution, and skepticism that shapes how this demographic interacts with digital financial services, including NAPSA's ECIS program.

Many participants exhibited a positive outlook towards e-services, recognizing the potential benefits such as convenience, time-saving, and cost-effectiveness. These positive perceptions often stemmed from personal experiences or anecdotes shared within their social networks, underscoring the role of peer influence and experiential learning in shaping attitudes towards e-services. However, it is worth noting that these positive sentiments were sometimes tempered by underlying concerns and reservations, particularly related to trust, security, and data privacy.

The issue of trust emerged as a significant factor influencing attitudes towards e-services. Participants expressed apprehensions about the safety and security of their personal and financial information when using digital platforms. These concerns were not merely abstract fears but were often rooted in real or perceived risks associated with cybercrime, identity theft, or unauthorized access to sensitive data. Addressing these trust-related concerns is crucial for building confidence and fostering a more favorable environment for e-services adoption among informal sector workers.

In addition to trust issues, technical challenges and barriers also played a role in shaping attitudes towards e-services. Participants who had encountered difficulties navigating complex interfaces or dealing with frequent system glitches expressed frustration and disillusionment, which in turn impacted their overall perceptions of e-services. This highlights the importance

of user experience and interface design in influencing attitudes and underscores the need for platforms that are not only secure but also user-friendly and intuitive.

Financial considerations also influenced attitudes towards e-services adoption, with some participants expressing reservations about hidden fees, transaction costs, or the perceived affordability of digital financial services. These financial concerns, coupled with trust and usability issues, contribute to a more nuanced understanding of the factors shaping attitudes towards e-services among informal sector workers.

Lastly, the role of social and cultural factors should not be underestimated in shaping perceptions and attitudes towards e-services. Cultural norms, societal expectations, and collective beliefs about technology and financial services can all influence how e-services are perceived and received within a community. Understanding these socio-cultural dynamics is essential for tailoring communication strategies and educational initiatives that resonate with the target audience and foster positive attitudes towards e-services.

6.7 Challenges and Barriers

The theme of challenges and barriers offers critical insights into the impediments that informal sector workers face when considering the adoption of e-services, particularly NAPSA's ECIS program. The qualitative data revealed a range of obstacles that hinder the seamless integration of digital financial services into the daily lives of this demographic, painting a complex picture of the digital divide that exists despite growing interest in e-services.

Technical Challenges

One of the most pervasive barriers identified was the array of technical challenges that participants encountered. These challenges ranged from connectivity issues in remote areas to difficulties navigating complex digital platforms. Poor internet connectivity was a recurring concern, especially among participants residing in peri-urban or rural areas where access to reliable internet infrastructure is limited. Additionally, some participants reported struggling with the usability of e-service platforms, citing confusing interfaces, lack of clear instructions, and limited customer support as significant pain points.

Addressing these technical challenges requires a multi-faceted approach that includes infrastructure development, user experience design, and capacity building. Investing in

expanding broadband infrastructure, particularly in underserved areas, can improve internet connectivity and accessibility. Simultaneously, designing user-friendly platforms with intuitive interfaces and providing comprehensive training and support can enhance the user experience and mitigate some of the technical barriers faced by informal sector workers.

Financial Constraints

Financial constraints emerged as another significant barrier to e-services adoption. Participants expressed concerns about transaction fees, hidden charges, and the overall affordability of digital financial services. For many informal sector workers who operate on tight budgets and irregular income streams, these financial considerations can be a deterrent to adopting e-services, even if they recognize the potential benefits.

To address financial barriers, it is essential to develop affordable and transparent pricing models that cater to the financial realities of informal sector workers. Offering low-cost or zero-fee services, providing incentives for digital transactions, and ensuring transparent pricing structures can help make e-services more accessible and appealing to this demographic.

Trust and Security Concerns

Trust and security emerged as significant concerns influencing the adoption of e-services among informal sector workers. Participants expressed apprehensions about the safety and security of their personal and financial information when using digital platforms. These concerns were often fueled by stories of fraud, identity theft, or unauthorized access to sensitive data, either from personal experiences or from their social networks.

Building trust and enhancing security are paramount for fostering a conducive environment for e-services adoption. Implementing robust cybersecurity measures, adopting data protection protocols, and educating users about online safety can help alleviate some of these trust and security concerns. Furthermore, transparent communication about privacy policies, data handling practices, and security measures can help build confidence and reassure users about the safety of using e-services.

Awareness and Education Gaps

Despite the growing interest in e-services, awareness and education gaps were evident among participants. Many were unaware of the range of services offered by NAPSA's ECIS program or lacked knowledge about how to access and utilize these services effectively. This lack of awareness and understanding can act as a significant barrier to adoption, as it limits the ability of informal sector workers to fully leverage the benefits of e-services.

To bridge these awareness and education gaps, targeted awareness campaigns, and educational initiatives are needed. Collaborative efforts involving government agencies, financial institutions, and community organizations can play a pivotal role in disseminating information, raising awareness, and educating informal sector workers about the benefits and functionalities of e-services.

6.8 Support and Assistance

The theme of support and assistance emerged as a crucial aspect influencing the adoption and utilization of e-services among informal sector workers in Zambia. The qualitative findings highlighted a pronounced need for tailored support mechanisms, comprehensive training programs, and accessible customer service channels to facilitate smoother and more effective engagement with digital financial services, including NAPSA's ECIS program.

A significant number of participants expressed a desire for more structured training and capacity-building programs to enhance their digital literacy and equip them with the skills needed to navigate e-services effectively. Many felt that their lack of familiarity with digital technologies and financial platforms was a significant barrier to adoption, leading to feelings of frustration and inadequacy.

To address this need, it is essential to develop and implement targeted training programs that cater to the specific needs and challenges faced by informal sector workers. These programs should be designed to build foundational digital literacy skills, provide hands-on training on using e-service platforms, and offer practical tips and guidance on managing finances digitally. Collaborative efforts involving government agencies, financial institutions, and community organizations can help facilitate the development and delivery of these training programs, ensuring they are accessible, relevant, and impactful.

The availability and accessibility of support services emerged as another critical factor influencing e-services adoption. While some participants reported having access to adequate

support and assistance when needed, others felt that support services were either insufficient or inaccessible, particularly in rural or peri-urban areas.

To enhance the availability and accessibility of support services, it is crucial to establish multiple channels for customer support, including helplines, chatbots, and in-person assistance centers. These support channels should be easily accessible, user-friendly, and available in local languages to cater to the diverse needs and preferences of informal sector workers. Additionally, proactive outreach and engagement strategies can help raise awareness about available support services and encourage more individuals to seek assistance when needed.

Participants' satisfaction levels with existing support services varied widely, with some expressing appreciation for the assistance received and others voicing dissatisfaction with the quality and responsiveness of support. Those who had positive experiences highlighted the importance of timely, personalized, and effective support in enhancing their confidence and facilitating their engagement with e-services.

To improve satisfaction levels and ensure that support services meet the needs and expectations of informal sector workers, it is essential to continuously monitor, evaluate, and refine support mechanisms based on user feedback and insights. Implementing feedback loops, conducting regular surveys, and engaging with users through focus group discussions can provide valuable insights into areas for improvement and help tailor support services to better meet the needs and preferences of the target audience.

The role of community and peer support emerged as a significant factor influencing the adoption and utilization of e-services. Participants who had received support and guidance from their peers or community leaders reported higher levels of confidence and engagement with e-services. This highlights the potential of leveraging existing social networks and community structures to provide informal sector workers with the support and assistance they need to navigate digital financial services successfully.

6.9 How the Objectives were achieved

i. **Assessing the awareness and knowledge levels of informal sector workers in Zambia regarding e-services and NAPSA's ECIS program.**

The first objective aims to assess the current state of awareness and knowledge. This likely involved surveying or interviewing informal workers to gauge their familiarity with e-services in general and specifically with the National Pension Scheme Authority's (NAPSA) Electronic Contribution Information System (ECIS) program. By understanding their existing knowledge base, researchers can develop targeted strategies to bridge the digital literacy gap. For instance, if the surveys reveal that a significant portion of informal workers have limited experience with using technology, the research team could recommend creating awareness campaigns through radio broadcasts or community workshops delivered in local languages. Additionally, the research might suggest developing user-friendly information pamphlets or infographics that explain the benefits and functionalities of ECIS in clear and concise language, using visuals and step-by-step instructions to enhance comprehension for users with varying levels of digital literacy. Furthermore, gathering data on the preferred channels for receiving information (radio, workshops, social media) can help tailor outreach efforts to ensure they reach informal workers where they are most receptive. By employing a multi-pronged approach that addresses both awareness and knowledge levels, the research team can lay the groundwork for successful e-service adoption within the Zambian informal sector.

ii. Adopting a model that will help improve adoption of e-services for ECIS under NAPSA

The second objective tackles the challenge of facilitating e-service adoption within ECIS. Here, the research might propose the development of a specific model that can be implemented within the Zambian context. This model-building process could involve several steps. First, researchers might conduct a thorough literature review to examine existing models for technology adoption in similar contexts. For instance, the Unified Theory of Acceptance and Use of Technology (UTAUT) has been widely applied to understand factors influencing technology adoption in various settings. By reviewing the strengths and limitations of existing models, researchers can identify a foundation upon which to build their own framework.

Second, the research team can leverage the data collected on awareness and knowledge levels from the first objective. This data can provide crucial insights into the specific needs and challenges faced by informal sector workers in Zambia. For example, if the surveys reveal that a significant portion of informal workers lack smartphones or reliable internet access, the model would need to address these limitations. The model might recommend incorporating alternative access points, such as facilitating service utilization through basic feature phones or

designated kiosks with internet connectivity in high-traffic areas within the informal market districts.

Finally, consultations with experts in e-services, technology implementation, and the informal sector can provide valuable perspectives to refine the model. These experts could offer insights into best practices for e-service adoption within developing economies, user interface design considerations for users with varying levels of digital literacy, and strategies for building trust in e-services among traditionally cash-based economies. By drawing on a combination of existing knowledge, data analysis of the target population, and expert consultations, the research team can develop a specific, actionable model that can guide the successful implementation of e-services within the ECIS program, promoting greater adoption among informal sector workers in Zambia.

iii. Identifying the specific barriers, challenges, and obstacles that hinder the adoption and utilization of e-services among informal sector workers.

The research recognizes the importance of identifying the specific roadblocks that hinder e-service adoption. Through focus groups, interviews, and surveys, the research team can gather rich qualitative and quantitative data to shed light on the obstacles faced by informal workers. These challenges might encompass a range of interconnected factors, including: A lack of reliable internet connectivity throughout Zambia, particularly in remote areas where informal markets might be concentrated, can be a significant barrier. Additionally, if a significant portion of informal workers lack smartphones or devices capable of accessing e-services, this creates a critical access gap that needs to be addressed.

Informal sector workers may have varying levels of digital literacy and comfort using technology. Complex user interfaces or applications that require a high level of technical expertise can be intimidating and discourage adoption. The research should investigate the specific challenges faced by users in navigating the ECIS platform and identify areas where the interface can be simplified or adapted to better suit the needs and skillsets of informal sector workers. Informal economies traditionally rely heavily on cash transactions. Building trust in e-services and addressing concerns about data security is crucial for encouraging adoption. The research can explore the specific anxieties around using e-services and identify areas where transparency and user education can play a role in alleviating these concerns.

6.10 Conclusions

E-Governance has enabled governments all over the world to provide services that are as competitive, if not better, then those provided by corporate businesses in certain circumstances. The trend that electronic or rather ICT has been at the centre of enabling businesses, including governments, that, despite being nonprofit institutions, have seen fit to tap into innovative digital solutions to provide secure, efficient, and user-friendly services to their clientele. The adoption of such technology as the Government Service Bus has even further enhanced service delivery by allowing customers to access various services like form applications, payments online, and many more, all these without human interaction and intervention.

This can be seen from services like road tax, motor vehicle licensing, etc. from RTSA, Immigration, and the Zambia Police that provide various services that can be conducted online through the Government Service Bus platform. Day today administrative operations have also been incorporated, and resource personnel have heightened their productivity and efficiency in doing their jobs using technology.

NAPSA, as a government agency that provides services to the public and corporate world, has benefited from the e-governance initiative in Zambia. However, the general low uptake of e-Government services hasn't spared NAPSA as an institute and therefore it became prudent to undertake a study to find out factors affecting the adoption and use of e-NAPSA services through the GSB based on the UTAUT Model.

The results for descriptive statistics show the mean score rating for the five variables which are performance expectancy, effort expectancy, social influence, facilitating conditions and behavioural intentions. The rating ranges from 1 to 5 with the highest number indicating excellent results. The highest mean is 4.1462 for performance expectancy and the lowest being the usage of e-services for NAPSA by marketeers. This means that the marketers believe that the usage of e-NAPSA services platforms would yield positive results and the conflicting results from the actual usage of e-NAPSA services with lowest mean of 1.4485 indicating that the adoption of system usage would not benefit the marketeers.

6.11 Research Contributions

Theoretical Contributions

i. Extending Existing Adoption Models:

The research might propose a new or adapted model for e-service adoption specifically tailored to the informal sector. This model could build upon existing theories like UTAUT (Unified Theory of Acceptance and Use of Technology) but incorporate additional factors relevant to the unique context of informal workers, such as:

Limited access to technology and infrastructure

Varying levels of digital literacy

Informal work practices and cash-based transactions

Trust concerns in e-services

By integrating these context-specific elements, the research could contribute to the theoretical understanding of factors influencing e-service adoption in developing economies.

ii. Bridging the Gap Between Awareness and Usage:

The research delves into the disconnect between awareness and actual usage of e-services. While informal workers might be aware of e-services like ECIS, various barriers might prevent them from using them regularly. The research could contribute to the theoretical understanding of this gap by identifying the specific factors that hinder the transition from awareness to sustained adoption within the informal sector. This could lead to a more nuanced understanding of the user journey in e-service adoption, informing future research and model development.

iii. The Role of User Interface (UI) and Trust in Informal Settings:

The research might highlight the importance of user interface design and trust-building strategies in promoting e-service adoption among users with limited digital literacy or experience with technology. This could contribute to the theoretical understanding of how UI design and trust-building interventions can be adapted to cater to the specific needs of informal

sector workers, ultimately influencing future research and design principles for e-services in similar contexts.

a. Practical Contributions

i. Targeted Outreach and Awareness Campaigns:

The research likely provides valuable data on the current level of awareness and knowledge regarding e-services like ECIS. This information can be used to develop targeted outreach campaigns tailored to the specific needs and preferred communication channels of informal sector workers. For instance, if the research reveals that radio is the primary source of information, public service announcements explaining the benefits and functionalities of ECIS could be broadcast in local languages during high-traffic timeslots. Additionally, workshops or information booths strategically located within market areas could provide hands-on demonstrations and address any questions or concerns workers might have.

ii. User-Centered Design and Training Programs:

By identifying challenges related to user interface complexity and varying levels of digital literacy, the research emphasizes the importance of user-centered design. This knowledge can be used to develop a more user-friendly interface for the ECIS platform, incorporating features like clear visuals, simple navigation, and support for local languages. Additionally, the research could inform the creation of training programs specifically designed for informal sector workers. These programs could offer step-by-step tutorials on using the ECIS platform, address common challenges, and provide ongoing support to ensure users feel comfortable and confident navigating the e-services.

iii. Addressing Infrastructure and Access Gaps:

The research likely sheds light on the limitations related to internet connectivity and device access within the informal sector. This information can be used to identify areas where infrastructure improvements are needed, potentially in collaboration with telecommunications companies, to expand internet coverage within key market areas. Additionally, exploring alternative access points, such as facilitating service utilization through basic feature phones or designated kiosks with internet connectivity, could address the needs of workers who lack smartphones or reliable personal devices.

iv. Building Trust and Addressing Security Concerns:

The research can contribute to building trust in e-services by identifying and addressing specific concerns about data security. Implementing robust security measures and developing clear data privacy policies can alleviate anxieties. Additionally, the research could recommend transparency initiatives, such as conducting user education workshops that explain how data is collected, stored, and protected. By fostering trust and transparency, the research can pave the way for greater adoption of e-services within the informal sector.

v. Informing Policy and Development Strategies:

The research findings can inform policymakers and development agencies involved in promoting financial inclusion and digital literacy initiatives. By understanding the specific challenges faced by informal sector workers, policymakers can develop targeted strategies to bridge the digital divide and encourage greater participation in the formal economy through e-service adoption. Additionally, the research can contribute to the development of more inclusive financial products and services tailored to the needs of the informal sector, ultimately improving their access to essential financial services.

6.12 Recommendations

Craft targeted outreach campaigns utilizing preferred channels like radio broadcasts or workshops delivered in local languages. These campaigns can raise awareness of e-services like the National Pension Scheme Authority's (NAPSA) Electronic Contribution Information System (ECIS) program and its benefits, dispelling myths and misconceptions that might hinder adoption. Strategically locate information booths within market areas to provide hands-on demonstrations, address user concerns in a welcoming and informative manner, and build trust in e-services by showcasing their security and user-friendliness.

Prioritize user-centered design principles when revamping the ECIS platform. This includes incorporating clear visuals, simple navigation, and local language support to ensure a user-friendly interface for workers with varying levels of digital literacy. Develop training programs specifically designed for informal sector workers, delivered in a patient and step-by-step manner. These programs can offer step-by-step tutorials on using the ECIS platform, address common challenges, and provide ongoing support to ensure users feel confident navigating e-services and can maximize the benefits they offer.

Collaborate with telecommunication companies to expand reliable internet coverage within key market areas, ensuring consistent and affordable access for informal workers seeking to utilize e-services. Explore alternative access points beyond smartphones, considering the prevalence of basic feature phones among some informal workers. This could involve facilitating service utilization through these devices or designated kiosks with internet connectivity strategically placed within market districts, ensuring geographically inclusive access.

Implement robust security measures and develop clear data privacy policies to alleviate anxieties about using e-services. Conduct user education workshops that explain how data is collected, stored, and protected, fostering transparency and trust. By demonstrating a commitment to user privacy and security, stakeholders can encourage greater adoption within the informal sector.

Share research findings with policymakers and development agencies involved in promoting financial inclusion and digital literacy initiatives. This knowledge can inform the creation of targeted strategies to bridge the digital divide and encourage greater participation in the formal economy through e-service adoption. Advocate for the development of inclusive financial products and services specifically tailored to the needs of the informal sector, considering factors such as irregular income streams and cash-flow patterns. This will improve their access to essential financial services and empower them to participate more fully in the digital economy.

6.12.1 Limitations of the study

The research might not have included a sample that perfectly represents the entire informal sector workforce. Factors like geographical location, type of informal business (e.g., street vendors, market stall owners, mobile service providers), or gender distribution within the sample could limit the generalizability of the findings to the broader population. Ideally, the research would have included participants from various regions of Zambia, encompassing a diverse range of informal business activities and ensuring a balanced representation of men and women. This would provide a more comprehensive picture of the challenges and opportunities related to e-service adoption within the informal sector.

The research might have relied on self-reported data through surveys or interviews. This data can be susceptible to biases, such as social desirability bias (respondents providing answers they believe are expected, such as over-reporting their level of comfort with technology) or recall bias (inaccuracies in remembering past experiences, such as under-reporting the frequency of mobile phone usage). To mitigate these biases, the research could have employed a combination of data collection methods. Triangulation, which involves using multiple methods to collect information on the same topic, can help to verify the accuracy of the findings and provide a more nuanced understanding of the phenomenon under study. For instance, the research could have supplemented surveys with focus groups or in-depth interviews to gain richer qualitative data on user experiences and perceptions.

The research appears to focus on awareness and adoption of e-services. It might not have delved deeply into the long-term use and sustainability of e-services among informal workers. Understanding long-term engagement and potential challenges faced with continued use is crucial for a holistic picture. The research might not have captured factors that influence ongoing use, such as the perceived usefulness of the e-services for daily business operations, the ease of integrating e-services into existing workflows, or the availability of ongoing technical support for troubleshooting issues.

The research might have focused specifically on the NAPSA's ECIS program. Informal sector workers might utilize other e-services, such as mobile banking platforms for receiving payments or money transfer services for sending remittances to family members. The research might not capture the broader challenges and opportunities related to e-service adoption within this sector. A more comprehensive understanding could be gained by examining how informal sector workers interact with a wider range of e-services and the factors that influence their decisions to adopt or discontinue using these services.

The research might not have fully accounted for external factors influencing e-service adoption, such as fluctuations in mobile phone network connectivity, changes in government regulations (e.g., new policies impacting mobile money transaction fees), or economic factors impacting disposable income levels within the informal sector. These external factors can significantly influence the feasibility and attractiveness of e-service adoption for informal workers. The research could be strengthened by considering how these external factors interact with the user-specific challenges identified within the study.

The future of every citizen, in formal and informal sectors, is accessing services is online, thus there is need to research more in how to suit organization systems to the masses to increase inclusivity of working sectors.

6.13 Chapter Summary

This chapter discussed and concluded the study. The chapter showed how the research questions were answered. The results to the hypothesis testing were also presented, conclusion was drawn, and recommendations have been proposed

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APPENDICES

Appendix 1 - Questionnaire

The University of Zambia

Graduate School of Business

FACTORS INFLUENCING ADOPTION OF E-SERVICES BY THE INFORMAL SECTOR; A CASE OF ECIS UNDER NAPSA

Mubanga Musenga

(MBA Management Strategy)

For more information or any queries, kindly get in touch on **0978902895**

Dear Respondent,

I am a student at the University of Zambia in my final stage pursuing an MBA in Management Strategy. As partial fulfillment for the award of a Master's degree, I am conducting a baseline study on: "***FACTORS INFLUENCING ADOPTION OF E-SERVICES BY THE INFORMAL SECTOR; A CASE OF ECIS UNDER NAPSA."***

You have been purposefully sampled to provide information for the topic indicated above. The information being collected is purely for academic purposes as such, it will be treated with maximum confidentiality. Subsequently, you are not supposed to indicate your name or any personal information that can lead to revealing of your identity.

Your co-operation will be greatly appreciated.

For more information or any queries, kindly get in touch with the following:

Project Supervisor: Dr. Jackson Phiri (Jackson.phiri@cs.unza.zm) or

Coordinator: Dr. Bupe M. Mwanza (directorgsb@unza.zm)

SURVEY QUESTIONNAIRES

PART ONE: DEMOGRAPHIC INFORMATION (PLEASE TICK [√])

1. Gender: Male [ ] Female [ ]

2. Marital Status: Single [ ] Married [ ] Divorced [ ] Other [ ]

3. Age: 20 or under [ ] 21-30 [ ] 31-40 [ ] 41-50 [ ] 51-60 [ ] 61+ [ ]

4. Highest level of education: SHS and below [ ] Diploma [ ] First degree [ ] Masters [ ] Ph.D. [ ]

5. Type of employment: Not working [ ] Salaried worker [ ] Self-employed [ ] Pensioner [ ]

6. Occupation:

PART TWO: COMPUTER KNOWLEDGE AND EXPERIENCE (PLEASE TICK [√])

7. How do you describe your general knowledge about computers? Very poor [ ] Poor [ ] Moderate [ ] Good [ ] Very good [ ]

8. How would you describe your Internet knowledge? Very poor [ ] Poor [ ] Moderate [ ] Good [ ] Very good [ ]

9. How long have you been using the Internet? Don't use [ ] Less than 1yr [ ] 1- 2 yrs. [ ] More than 2 yrs. [ ]

10. How often do you use the Internet per day? Don't use [ ] Less than 1hr [ ] 1-2 hrs. [ ] 3- 4 hrs. [ ] More than 4 hrs. [ ]

PART THREE: E-SERVICE ADOPTION FACTORS

Using a rating scale from the lowest point of 1 to the highest point of 5, please circle the number that indicates your level of agreement or disagreement with the following statement.

SD = strongly disagree | D = Disagree | N = Neutral | A = Agree | SA = Strongly Agree | NA= Not Application

No	Statement					
Performance Expectancy		**SD**	**D**	**N**	**A**	**SA**
1	I think that NAPSA E-services would be useful in carrying out my tasks	1	2	3	4	5
2	I think that using NAPSA E-services would enable me conduct tasks more quickly	1	2	3	4	5
3	I think that using NAPSA E-services would increase my productivity	1	2	3	4	5
4	I think using NAPSA E-services would improve my performance	1	2	3	4	5
Effort Expectancy		**SD**	**D**	**N**	**A**	**SA**
1	I think that interaction with NAPSA E-services is clear and easily understandable	1	2	3	4	5
2	I think it's easy to become skillful at using NAPSA E-services	1	2	3	4	5
3	I find NAPSA E-services easy to use	1	2	3	4	5
4	I think that learning to operate Internet banking is easy for me	1	2	3	4	5
Social Influence		**SD**	**D**	**N**	**A**	**SA**
1	People who influence my behaviour think that I should use NAPSA E-services	1	2	3	4	5
2	People who are important to me think that I should use NAPSA E-services	1	2	3	4	5
3	People in my environment who use NAPSA E-services services have more prestige than those who do not	1	2	3	4	5

4	People in my environment who use NAPSA E-services have a high profile	1	2	3	4	5
5	Having NAPSA E-services is a status symbol in my environment	1	2	3	4	5
Facilitating Conditions		**SD**	**D**	**N**	**A**	**SA**
1	I have the resources necessary to use NAPSA E-services	1	2	3	4	5
2	I have the knowledge necessary to use NAPSA E-services	1	2	3	4	5
3	Help/guidance is available on using NAPSA E-services	1	2	3	4	5
4	NAPSA E-services platforms have most of the services I need from the branch.	1	2	3	4	5
5	I am aware and understand the services/activities that can be done on NAPSA E-services	1	2	3	4	5
Behavioral Intention		**SD**	**D**	**N**	**A**	**SA**
1	I intend to use the system in the next months.	1	2	3	4	5
2	I predict I would use NAPSA E-services in the next months.	1	2	3	4	5
3	I plan to use the system in the next months.	1	2	3	4	5
4	I intend to consult the balance of my account on the platform of NAPSA E-services	1	2	3	4	5
5	I intend to perform a transfer on the platform of NAPSA E-services	1	2	3	4	5

PART FOUR: ACTUAL USE OF E-SERVICES (PLEASE TICK [√])

1. How long have you been using NAPSA E-services facilities? Under 1 year [ ] 1-2 years [ ] 3- 4 years [ ] more than 4 years [ ]

2. On a weekly basis, how many times do you use NAPSA E-services? Not at all [ ] once a week [ ] 2-3 times [ ] more than 3 times [ ]

3. How frequently do you use your NAPSA E-services for the following services?

Functionality	**Never 1**	**Rarely 2**	**Sometimes 3**	**Often 4**	**Always 5**
View Only					
Balance enquiry					
Beneficiary details					
Employment history					
Previously uploaded returns					
Payment receipts					
Account penalties					
Action/Account Control	**Never 1**	**Rarely 2**	**Sometimes 3**	**Often 4**	**Always 5**
Generate statement					
Upload payments					
Process payments					
Payment receipts					
Account penalties and underpayment					
Employer/ Member registration					
Detail amendment					

Appendix 2

Table 21: Literature Review and Gaps

Title	Year	Author	Findings	Gaps
The Effects of E-Services on Revenue Collection and Tax Compliance among SMEs in Developing Countries	2020	Vernon Mukuwa and Jackson Phiri	The study suggested that there is a positive relationship between use of e-banking services and perceived ease of use, usefulness, attitudes, external factors, intention, system use.	Gap in the research was that it was discovered that the study was not all inclusive of all categories of taxpayers
Factors Driving the Adoption of E-banking Services Based on the UTAUT Model	2019	Gladys Chikondi Daka and Jackson Phiri	Performance expectancy is the key to adoption of E-banking services in Zambia. Social influence was non-significant to the user's intention to adopt e-banking services	There is gap in the study as it did not focus on challenges faced by clients like poor bandwidth.
Factors affecting adoption and use of mobile banking services in Zambia based on TAM models.	2019	Lute Sakala and Jackson Phiri	The study suggested that there is a positive relationship between use of e-banking services and perceived ease of use, usefulness, attitudes, external factors, intention, system use.	The study did not point out the challenges that customers in the banking sector in trying to resolve queries using

				mobile banking systems.
A model for improving e-tax adoption in the rural of Zambia based on the TAM models.	2019	Patience Njina Soneka and Jackson Phiri	E-tax payment and submission systems is convenient and less costly for those in the rural areas but there is however, greater need to enhance sensitization	The study did not examine the Theory of Reasoned Model (TRA Models) but focused much on the TAM models.
Adoption of internet banking services by corporate customers for forex transactions based on the TRA Models.	2020	Lufwendo Lishomwa and Jackson Phiri	There is a very strong relationship between internet banking and performance expectation, control factor and social influence	The study did not focus on customer service management and complaint handling process
Examining Factors Influencing E-Banking Adoption: Evidence from Bank Customers in Zambia	2017	Bruce Mwiya, Felix Chikumbi, Chanda Shikaputo, Edna Kabala, Bernadette Kaulung'ombe, Beenzu Siachinji	the researchers has revealed that perceived usefulness, perceived ease of use and trustworthiness of e-banking systems and services positively correlate with attitude toward e-banking use.	-Future studies should consider a sample that reaches the whole country. -the study should attempt

				longitudinal designs that explore the transition from intention to actual behaviour
Integration of UTAUT model in internet banking adoption context	2018	Samar Rahi, Majeed Mustafa Othman Mansour, Mahmoud Alghizzawi and Feras Mi Alnaser	There is positive relationship between respondents' performance expectancy and effort expectancy.	This study is cross-sectional and had examined internet banking adoption problem at one point of time. Future researchers may analyse this study in longitudinal mode.
Customer Perception towards Adoption of e-banking Services in Kathmandu: A Survey of Business School Students	2019	Nirmal Bairacharya and Arhan Sthapit	The present study findings have matched with the proposition of Technology Acceptance Model (TAM), as TAM posits that perceived usefulness and perceived ease of	no significant variation existed between the different age groups when it

			use are positively and significantly associated with e-banking use.	came to the customer perception of e-banking services in the Kathmandu Valley
Measuring Customer's Attitude Towards Internet Banking Adoption In Ethiopia	2020	Haile Shitahun Mengistie and Aemro Worku	Findings of correlation analysis showed that all constructs of TAM and DTPB (Compatibility, Subjective norm, trust, perceived usefulness and perceived ease of use) were positively and significantly affect customers attitude.	should include more variables from different theories and models as well as additional social issues
Factors affecting adoption of e-government in Zambia	2009	Kelvin Joseph Bwalya	There is limited ICT infrastructure in the public sector to support the adoption of e-government in Zambia	The main acceptance model theories like TAM and TRA were not examined.
The Role of Trust and Gender in Mobile Money Adoption in Lusaka, Zambia: An Analysis Using the	2011	Elnaiem Thuraya	Mobile money has eased the moving of money among Zambians	The risk associated in mobile money banking was not

Technology Acceptance Model				considered in the study
Study on Factors Affecting Mobile Payment Systems Diffusion in Zambia	2016	Ernest Lesa	retail banks and MNOs have not delivered m-payment service awareness tailored to increase acceptance to use of m-payment as a preferred payment channel	The risk associated in mobile money banking was not considered in the study
Passenger and Luggage tracking system using sensor network for public transport	2019	George Kasanga	There is positive relationship between respondents' perceived ease of use and perceived usefulness of the tracking system.	The TRA Model was not examined in this study as with regard to technology acceptance by passengers and public transport users.
A Study of the Effects of Technological Innovations on the Performance of Commercial Banks in Developing Countries - A Case of the Zambian Banking Industry	2019	Jonas Kalima	Mobile banking has affected the commercial banks performance in terms of being more innovative when it comes to service delivery	The performance of commercial banks was not analyzed in terms of profitability

The effect of mobile banking on performance of commercial banks in Zambia	2020	Leonard Makumba	Mobile banking has influenced the commercial banks in Zambia to develop Agent businesses by licensing operators as agents of the banks.	The study lacked the adoption of theory models like TAM, TRA's

Appendix 3: Approval Letter

THE UNIVERSITY OF ZAMBIA

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road Campus | P.O. Box 32379 | Lusaka10101 | Tel: +260-211-290 258/291 777 **Fax**: (+260)-211-290 258/253 952 | E-**mail**: director.drgs@unza.zm | Website: www.unza.zm

APPROVAL OF STUDY

IORG No. 0005376

HSSREC IRB No. 00006464

14th November, 2022

REF NO. HSSREC:-2022-OCT.024

Mr. Mubanga Musenge
The University of Zambia
Graduate School of Business,
P.O. Box 32379,
LUSAKA.

Dear Mr. Mwamba,

RE: "FACTORS INFLUENCING ADOPTION OF E-SERVICES BY THE EXTENSION OF COVERAGE TO THE INFORMAL SECTOR (ECIS) UNDER NAPSA"

Reference is made to your submission of the protocol captioned above. The HSSREC resolved to approve this study and your participation as Principal Investigator for a period of one year.

REVIEW TYPE	**ORDINARY REVIEW**	**APPROVAL NO. HSSREC:-2022-OCT-024**
Approval and Expiry Date	Approval Date: 14th November, 2022	Expiry Date: 13th November, 2023
Protocol Version and Date	Version - Nil.	13th November, 2023
Information Sheet, Consent Forms and Dates	English.	To be provided
Consent form ID and Date	Version - Nil	To be provided
Recruitment Materials	Nil	Nil
Other Study Documents	Questionnaire.	
Number of Participants Approved for Study		

Specific conditions will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

CONDITIONS OF APPROVAL

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.

- All unanticipated or Serious Adverse Events (SAEs) must be reported to HSSREC within 5 days.

- All protocol modifications must be approved by HSSREC prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address.

- All protocol deviations must be reported to HSSREC within 5 working days.

- All recruitment materials must be approved by HSSREC prior to being used.

- Principal investigators are responsible for initiating Continuing Review proceedings. HSSREC will only approve a study for a period of 12 months.

- It is the responsibility of the PI to renew his/her ethics approval through a renewal application to HSSREC.

- Where the PI desires to extend the study after expiry of the study period, documents for study extension must be received by HSSREC at least 30 days before the expiry date. This is for the purpose of facilitating the review process. Documents received within 30 days after expiry will be labelled “late submissions” and will incur a penalty fee of K500.00. No study shall be renewed whose documents are submitted for renewal 30 days after expiry of the certificate.

- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities and Social Sciences Research Ethics Committee as an IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.

- When closing a project, the PI is responsible for notifying, in writing or using the Research Ethics and Management Online (REMO), both HSSREC and

the National Health Research Authority (NHRA) when ethics certification is no longer required for a project.

- In order to close an approved study, a Closing Report must be submitted in writing or through the REMO system. A Closing Report should be filed when data collection has ended and the study team will no longer be using human participants or animals or secondary data or have any direct or indirect contact with the research participants or animals for the study.

- Filing a closing report (rather than just letting your approval lapse) is important as it assists HSSREC in efficiently tracking and reporting on projects. Note that some funding agencies and sponsors require a notice of closure from the IRB which had approved the study and can only be generated after the Closing Report has been filed.

- A reprint of this letter shall be done at a fee.

- All protocol modifications must be approved by HSSREC by way of an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by HSSREC before they can be implemented.

Should you have any questions regarding anything indicated in this letter, please do not hesitate to get in touch with us at the above indicated address.

On behalf of HSSREC, we would like to wish you all the success as you carry out your study.

Yours faithfully,

Dr. J.I. Ziwa

DR. J. I. Ziwa

ACTING CHAIRPERSON
THE UNIVERSITY OF ZAMBIA HUMANITIES AND
SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE - IRB

cc**:** Director, Directorate of Research and Graduate Studies
Assistant Director (Research), Directorate of Research and Graduate Studies

Assistant Registrar (Research), Directorate of Research and Graduate Studies

Appendix 3: Published work

Factors Influencing the Adoption of E-Services by the Informal Sector: A Case of ECIS under NAPSA

Mubanga Musenga, Jackson Phiri

Open Journal of Business and Management Vol.11 No.4, July 27, 2023

DOI: 10.4236/ojbm.2023.114102

Scientific Research Publishing

Open Journal of Business and Management, 2023, 11, 1832-1853
https://www.scirp.org/journal/ojbm
ISSN Online: 2329-3292
ISSN Print: 2329-3284

Factors Influencing the Adoption of E-Services by the Informal Sector: A Case of ECIS under NAPSA

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How to cite this paper: Musenga, M., & Phiri, J. (2023). Factors Influencing the Adoption of E-Services by the Informal Sector: A Case of ECIS under NAPSA. *Open Journal of Business and Management, 11*, 1832-1853.
https://doi.org/10.4236/ojbm.2023.114102

Received: February 20, 2023
Accepted: July 24, 2023
Published: July 27, 2023

Abstract

The study was conducted to investigate the factors influencing the adoption of e-services by the informal sector under the Extension of Coverage to the Informal Sector (ECIS) under NAPSA. The study adopted the UTAUT framework model from which five variables were examined which are: performance expectancy, effort expectancy, social influence, facilitating conditions and behavioral intention to determine the factors influencing the actual use of eService systems. The researcher adopted a mixed methodology approach which applied both quantitative and qualitative techniques of data collection and analysis. A sample size of 301 marketeers was randomly selected and determined using the (Moazzam, 2014) formula, from which data was using questionnaires and analyzed using SPSS. The demographic data shows that most of the respondents from the marketeers where female with a frequency of 211 out of 301 respondents which accounted for 70.1% of the total respondents with males having a frequency of 90 out of 301 accounting 29.9%. The results from SPSS outputs indicate: the correlation coefficient of −0.329 with p value of 0.061 indicates a negative relationship between performance expectancy and the use of ENAPSA services by the marketers. Effort expectancy is not significant with the Pearson correlation of 0.096 with a p value of 0.072. Social influence is not significant as indicated in the table above with the Pearson correlation of 0.042 with a p value of 0.001. The correlation coefficient of 0.312 with p value of 0.002 indicates a positive relationship between facilitating conditions and the use of ENAPSA services by the marketeers. The correlation coefficient of −0.181 with a p value 0.052 indicates a negative relationship between behavior intention and the use of ENAPSA services by the marketeers. From the five variables, social influence and facilitating conditions which are driving the adoption of ENAPSA ser-