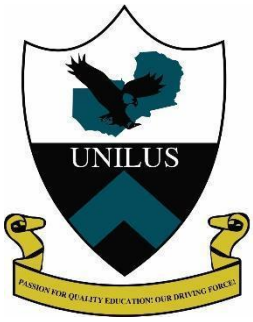

UNIVERSITY OF LUSAKA

SCHOOL OF POSTGRADUATE STUDIES

MOBILE BANKING SERVICES AND FINANCIAL INCLUSION AMONG COMMERCIAL BANKS IN ZAMBIA: A CASE STUDY OF SELECTED ZANACO BRANCHES IN LUSAKA

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MBAFIN23119212

A dissertation presented in partial fulfilment of the requirements for the Masters of Business Administration in Finance.

2024

DECLARATION

I declare that this dissertation represents my own work and has not been previously submitted for a degree at this or any other university. All information derived from published and unpublished work of others has been duly acknowledged in the text and references.

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DEDICATION

This dissertation is dedicated to my family for their unwavering support throughout my academic journey. Their encouragement, patience, and understanding have been instrumental in achieving this milestone.

ACKNOWLEDGEMENTS

I thank God Almighty for granting me the gift of life and enabling me to work tirelessly to realize this research's objective. Special gratitude to my supervisor, Dr. Avulundiah Phiri, for his invaluable guidance and support throughout this research journey. I appreciate the respondents from ZANACO for their cooperation and the University of Lusaka staff for their assistance. My heartfelt thanks to friends and family for their continuous encouragement and support during this academic pursuit.

LIST OF ABBREVIATIONS

ZANACO	Zambia National Commercial Bank
TAM	Technology Acceptance Model
FI	Financial Inclusion
MB	Mobile Banking
DFS	Digital Financial Services
KMO	Kaiser-Meyer-Olkin
SPSS	Statistical Package for Social Sciences
SD	Standard Deviation
USSD	Unstructured Supplementary Service Data
VIF	Variance Inflation Factor

ABSTRACT

Mobile banking services present both opportunities and challenges for financial inclusion in Zambia. Despite significant investments in mobile banking infrastructure by commercial banks like ZANACO, adoption rates and effective utilization remain below optimal levels, particularly among certain demographic groups in urban areas like Lusaka. This study examined mobile banking services and financial inclusion among ZANACO branches in Lusaka, with objectives to assess adoption rates across demographic segments, analyse correlation between service utilization and financial inclusion indicators, and evaluate implementation barriers. Using a mixed-methods approach, the study collected data from 337 ZANACO customers through questionnaires and conducted interviews with key banking officials. The research employed descriptive statistics, correlation analysis, and multiple regression modelling, complemented by thematic analysis of qualitative data. Findings revealed moderate adoption levels (mean=2.99, SD=1.402) across customer segments, with higher rates among younger, educated users (21.7% with bachelor's degrees) and higher-income earners (22% above K20,000). Service utilization showed a strong correlation with financial inclusion outcomes ($\beta=0.342$, $p<0.001$), while implementation barriers significantly moderated effectiveness ($\beta=-0.187$, $p<0.001$). Qualitative data highlighted network connectivity challenges, digital literacy variations, and transaction cost concerns affecting implementation. Interview findings emphasized the success of targeted strategies for different customer segments, with 60% of new accounts primarily using mobile services. The study recommends implementing tiered pricing structures for low-income segments, developing multi-language interfaces, and establishing dedicated digital banking support units in branches to enhance adoption and utilization rates.

TABLE OF CONTENTS

COPYRIGHT i

DECLARATION ii

DEDICATION iii

ACKNOWLEDGEMENTS iv

LIST OF ABBREVIATIONS v

ABSTRACT vi

LIST OF TABLES xi

LIST OF FIGURES xii

CHAPTER ONE 1

INTRODUCTION 1

1.0 Introduction 1

1.1 Background of the Study 1

1.2 Statement of the Problem 2

1.3 Objectives of the Study 3

1.3.1 General Objective 3

1.3.2 Specific Objectives 3

1.4 Research Questions 3

1.5 Significance of the Study 3

1.6 Scope of the Study 4

1.7 Definition of Key Terms 4

1.8 Dissertation Outline 4

CHAPTER TWO 6

LITERATURE REVIEW 6

2.0 Introduction 6

2.1 Empirical Review 6

2.1.1 Global Perspective 6

2.1.2 African Perspective 9

2.1.3 Zambian Perspective 12

2.1.4 Gap in Literature 14
2.2 Theoretical Framework 16
2.2.1 Technology Acceptance Model (TAM) 16
2.2.2 Financial Inclusion Theory 16
2.2.3 Diffusion of Innovations 17
2.3 Conceptual Framework 18
2.3.1 Independent Variables 18
2.3.2 Moderating Variable 19
2.3.3 Dependent Variable 20
2.4 Chapter Summary 21
CHAPTER THREE 22
METHODOLOGY 22
3.0 Introduction 22
3.1 Research Philosophy 22
3.2 Research Approach 22
3.3 Research Design 23
3.4 Population of the Study 23
3.5 Sample Size 24
3.6 Sampling Procedure 25
3.7 Data Collection Instruments 25
3.8 Data Analysis 25
3.9 Reliability and Validity 26
3.10 Ethical Considerations 27
3.11 Chapter Summary 27
CHAPTERS FOUR 28
DATA PRESENTATION AND ANALYSIS 28
4.0 Introduction 28
4.1 Response Rate 28
4.2 Preliminary Analysis 28

4.2.1 Normality Test....29
4.2.2 Factor Analysis Results....30
4.2.3 Reliability Test....32
4.3 Demographic Information....33
4.3.1 Age Group....33
4.3.2 Gender....35
4.3.3 Educational Level....36
4.3.4 Monthly Income Level....37
4.3.5 Duration of ZANACO Account....38
4.4 Descriptive Statistics....39
4.4.1 Mean Score Interpretation Scale....39
4.4.2 Mobile Banking Adoption....39
4.4.3 Service Utilization....41
4.4.4 Implementation Barriers....43
4.4.5 Summary of Variable Means....45
4.5 Inferential Analysis....46
4.5.1 Multicollinearity Test Results....46
4.4.3 Heteroscedasticity Test....48
4.5.2 Regression Results....49
4.6 Qualitative findings from Key Informants from ZANACO....51
4.6.1 Mobile Banking Adoption and Usage Patterns....51
4.6.2: Service Utilization and Financial Inclusion....54
4.6.3 Implementation Barriers....58
CHAPTER FIVE....62
DISCUSSION OF FINDINGS....62
5.0 Introduction....62
5.1 Discussion....62
5.1.1 Mobile Banking Adoption Rates and Usage Patterns....62
5.1.2 Mobile Banking Service Utilization....64

5.1.3 Implementation Barriers 65
CHAPTER SIX 68
CONCLUSIONS AND RECOMMENDATIONS 68
6.0 Introduction 68
6.1 Summary of Findings 68
6.1.1 Mobile Banking Adoption Rates and Usage Patterns 68
6.1.2 Mobile Banking Service Utilization and Financial Inclusion 69
6.1.3Implementation Barriers Affecting Mobile Banking Effectiveness 69
6.2 Conclusion 70
6.3 Recommendations 71
6.4 Recommendation for Future Study 73
6.5 Limitations of the Study 73
REFERENCES 74
APPENDICES 77
Appendix i: Questionnaire for ZANACO Customers 77
Appendix ii: Key Informants Interview Guide 82
APPENDIX iii 84
PLAGIRISM REPORT 84

LIST OF TABLES

Table 4.1: Response Rate…… 39

Table 4.2: Test of Normality……... 40

Table 4.3: Skewness and Kurtosis Analysis…… 40

Table 4.4: KMO and Bartlett's Test…… 41

Table 4.5: Principal Component Analysis Results……... 42

Table 4.6: factor Loading…… 42

Table 4.7: Reliability Test…… 43

Table 4.8: Mean Score Interpretation Scale……..... 49

Table 4.9: Mobile Banking Adoption…… 50

Table 4.10: Service Utilization…… 52

Table 4.11: Implementation Barriers…… 54

Table 4.12: Summary of Variable Means…… 55

Table 4.13: Collinearity Statistics…… 56

Table 4.14: Collinearity Diagnostics…… 57

Table 4.15: Breusch – Pagan Test Results…… 58

Table 4. 16: Model Summary…… 58

Table 4.17: ANOVA Results……... 59

Table 4.18: regression Coefficients…… 60

LIST OF FIGURES

Figure 2.1: Conceptual Framework..... 29

Figure 4.1: Age Group..... 44

Figure 4.2: Gender..... 46

Figure 4.3: Education Level..... 46

Figure 4.4: Monthly Income Level..... 48

Figure 4.5: Duration of ZANACO Account Ownership..... 48

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The mobile banking revolution has had a huge impact on the financial sector in Zambia, particularly regarding its contribution to financial inclusion among the marginalized groups in the society. The present work explores the relationship between mobile banking services and financial inclusion, involving selected ZANACO branches in Lusaka. It also investigates how the application of digital banking technologies affects the availability of financial services, customer adoption patterns, and impacts on the financial sector development in Zambia.

1.1 Background of the Study

Financial inclusion has become a critical aspect of economic development, especially in developing countries where access to formal banking services is limited. Mobile banking has emerged as a transformative solution, enabling individuals and businesses to access financial services conveniently and affordably. In Zambia, commercial banks such as ZANACO have leveraged mobile banking to bridge the financial gap, particularly for underserved populations. This study examines the role of mobile banking in promoting financial inclusion among commercial banks in Zambia, focusing on selected ZANACO branches in Lusaka.

The evolution of mobile banking can be traced back to the early 2000s when financial institutions began using mobile technology to provide banking services. Initially, banking services were accessed through Unstructured Supplementary Service Data (USSD) and Short Message Service (SMS), allowing customers to check balances, receive transaction notifications, and conduct simple transactions. Over time, advancements in mobile technology led to the development of mobile banking applications, enabling more sophisticated services such as fund transfers, bill payments, and loan applications.

Globally, mobile banking gained prominence with the launch of M-Pesa in Kenya in 2007, which demonstrated the potential of mobile money services in enhancing financial inclusion. The success of M-Pesa influenced many African countries, including Zambia, to adopt mobile banking solutions as a means of extending financial services to unbanked and underbanked populations.

Financial inclusion in Zambia has historically been hindered by factors such as limited banking infrastructure, high transaction costs, and low financial literacy levels. A significant portion of the population, especially in rural areas, remained excluded from the formal financial system due to the high costs associated with traditional banking and the long distances to banking facilities.

The introduction of mobile banking services by commercial banks and mobile network operators (MNOs) has significantly improved financial access. Zambia National Commercial Bank (ZANACO), as one of the leading financial institutions, has played a crucial role in expanding banking services through mobile platforms such as Xpress Banking and ZANACO Mobile. These platforms enable customers to access financial services without the need to visit physical bank branches, thereby reducing barriers to financial inclusion.

1.2 Statement of the Problem

Despite the expanding mobile banking technologies in Zambia, the financial services sector is faced with serious challenges in its bid to reach out to the unbanked populations. Be that as it may, mobile banking is seen as an average means to unlocking financial inclusion. Even so, research done by Kawimbe (2022) reveals that the uptake and meaningful usage of these services remain way below the expected levels, particularly among the specified population groups in urban areas such as Lusaka. Nevertheless, this problem has not been solved partly because commercial banks like ZANACO, which have heavily invested in mobile banking infrastructure, have not been able to bridge the gap that lies between the potential and actual influences of these services on financial inclusion. Chikalipah (2020) points out that the mere provision of mobile banking services does not automatically bring forth the desired financial inclusion benefits, thus inferring that other obstacles may probably hinder the effectiveness of such interventions.

Besides, Mwange et al. (2022) have argued that while the mobile banking sector services indicate a somewhat good performance in terms of enhancing the banking sector’s revenue, there is a limited appreciation as to how these services have contributed to the expansion of financial access and thus the usage of the said services among the underserved populations. This gap is a cause for the ineffective deployment of the mobile-banking strategies to achieve the financial inclusion goals.

1.3 Objectives of the Study

1.3.1 General Objective

To evaluate the impact of mobile banking services on financial inclusion among ZANACO customers in Lusaka, Zambia.

1.3.2 Specific Objectives

i. To assess mobile banking adoption rates and usage patterns among ZANACO customers in Lusaka.
ii. To analyse how mobile banking services, contribute to enhanced financial access and usage among underserved populations.
iii. To identify the barriers impending effective mobile banking implementation and financial inclusion among ZANACO customers.

1.4 Research Questions

i. What are the current adoption rates and usage patterns of mobile banking services among ZANACO customers in Lusaka?
ii. How do mobile banking services contribute to enhanced financial access and usage among underserved populations?
iii. What specific barriers impede effective mobile banking implementation and financial inclusion?

1.5 Significance of the Study

This study on mobile banking services and financial inclusion among commercial banks in Zambia, with a focus on selected ZANACO branches in Lusaka**,** holds significant importance for various stakeholders.

For Banks (ZANACO and Other Financial Institutions): The study will help commercial banks improve their mobile banking services by identifying challenges faced by users and areas for enhancement. It will provide data-driven recommendations for increasing customer adoption and satisfaction.

For Customers and the General Public: The study will help customers understand the benefits and challenges of mobile banking, leading to increased trust and usage of digital financial services. It will contribute to raising awareness about the role of mobile banking in improving financial accessibility and economic empowerment.

For Policymakers and Regulators: The study will inform policymakers on the effectiveness of mobile banking as a tool for financial inclusion, guiding regulations and policies aimed at expanding digital financial services.

For Researchers and Academics: The study will add to the existing body of knowledge on mobile banking and financial inclusion, serving as a reference for future research.

1.6 Scope of the Study

The study included branches of ZANACO bank in Lusaka and it focused on mobile payment services and their effect on financial inclusion having made a perspective of the future from 2022 to 2023. The research targeted three specific branches: Cairo Road, Longacres, and

Manda Hill, which are retail and corporate banking segments in both retail and corporate. The investigation studied customer adoption patterns, transaction behaviours, the rate of utilization of services and the barriers of implementation. The data was acquired from customers and ZANACO bank officials through both quantitative and qualitative methods.

1.7 Definition of Key Terms

Mobile Banking: The operation of and access to banking services through the mobile telecommunication equipment

Financial Inclusion: Financial inclusion is the process of providing the right financial products and services at a low cost to vulnerable groups in a fair and transparent manner

Digital Financial Services: Financial services that are offered through digital channels include mobile phones, cards, electronic wallets, and digital platforms

USSD Banking: USSD is Unstructured Supplementary Service Data that provides mobile banking services on basic feature phones

Transaction Patterns: This is basically the detailed examination of the highest, most used, and largest size of money transfers by the mobile banking platforms

Digital Literacy: Digital literacy is the ability to use digital technology, communication tools, and networks to access, manage, and critically evaluate financial information

Financial Access Points: Physical or digital sites from where the clients can be able to access the deals

Underserved Population: People who are left out of mainstream financial services are those who are underserved

1.8 Dissertation Outline

The rest of the dissertation is organized as follows:

Chapter Two scrutinized the extant scholarly literature on mobile banking and financial inclusion. The book reviewed the theoretical frameworks, empirical studies, and the

research gaps in the current knowledge. The part of the review discussed the technology acceptance models, financial inclusion theories, and mobile banking implementation in developing economies through literature. Chapter Three illustrated a research design, sampling methods, data collection techniques, and the analytical tools that were employed in the study. It described the mixed-methods approach, which consisted of both quantitative and qualitative research that served as the instruments that were used to gather data. Chapter Four arranged and unveiled the uncovered data through surveys, interviews, and document analysis. It provided descriptive statistics, demographic information, and preliminary data patterns, without their interpretations. Chapter Five detailed insight into the research results as well as a review of their implications. It interprets the statistical results, examined qualitative themes, and compared findings with previous research. The chapter evaluated how the results addressed the research objectives and questions.

Chapter Six outlined the main findings, draw conclusions according to the research purposes, and give recommendations for policy and practice. It also put forward suggestions for further investigation of the topic and elaborated on the implications of the findings for mobile banking and financial inclusion in Zambia.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The present chapter has dealt with the research literature on mobile banking services and financial inclusion, using empirical works done globally, in Africa and in Zambia. A detailed analysis of the research methods, findings, and limitations of earlier work was done as part of the study, with the purpose of filling the gaps in knowledge. The chapter has been structured thematically; that is, it has reviewed the literature from the most general to the most particular level, setting up a theoretical base for the study. While taking a closer look at the research work, the revisiting has evidenced where the need for further research is ascertained, especially in the areas of mobile banking adoption in the urban areas of Zambia and the financial inclusion outcomes.

2.1 Empirical Review

The empirical part was to compare previous research findings on mobile banking and financial inclusion and the ease, risk factors, and benefits of it in different parts of the world. With such an inquiry, the study of present-day realities was enhanced in the process of researching mobile banking services at ZANACO branches in Lusaka.

2.1.1 Global Perspective

In an inventive study, Predana et al. (2020) made a pioneering effort to investigate mobile banking in Indonesia by using concepts like ease of use, trust, and incentives received as the solutions to the standpoints of the bank's customers. The data was collected from 384 participants using structured questionnaires, and then the collected data was analysed through structural equation modelling. They established that there was a strong link between the users' comfort with the mobile experience and the rate of adoption ($r=0.78$, $p<0.001$). Trust, heeding, emerged as the most prominent feature, as it is the main factor influencing the customers' decision to carry out expensive activities. The study came out with solid conclusions, based on which customer satisfaction and the sustained usage of mobile banking can be significantly improved through UI design and networking of the system. A clear disadvantage of the existing research is that it has not provided substantive information on the obstacles to adopting mobile banking services. Thus, the goal of the current study is to close this gap through the practice of careful examination of the issues related to adoption in the specific demographic groups at ZANACO, which will eventually enable the formulation of customer-driven methods for mobilizing the banking use.

Going further into these variables of adoption, Kim et al. (2018) went through an in-depth study of financial inclusion in the field of mobile financial services in one of the developing countries by analysing 54 research articles published between 2008 and 2017. The research design included both qualitative and quantitative methods, with success factors, implementation challenges, and financial inclusion outcomes analysis being done through meta-analysis. They concluded by suggesting that in the case of Predana the primary drivers are trust and ease of use, besides giving light to the variance in mobile banking adoption rates among different social groups, such as, for instance, the diversity of education levels and technology literacy as the main instruments of the complete technology adoption success (correlation coefficient 0.72, $p<0.001$). The survey respondents also noted that a positive outcome was reached mainly when the banks appropriated higher investment on a customer education basis, of which holding 45% better outcomes. However, their research mainly covered aggregate data analysis, which led to a gap in understanding individual consumer behaviour and specific institutional implementation strategies.

The next step in the understanding of E-banking and its impact was further done by Ouma et al. (2017), who carried out an exploratory study of mobile financial services and savings mobilization in East Asia to flash out Kim's research regarding socioeconomic factors. They also used other discussion models to examine the access of mobile banks to the possible connection with savings and found that improved mobile financial services led to an increase in savings of 32%. The report was depressingly clear: "Mobile phones are already causing a reduction in transaction costs, as well as expanding access for customers passively, and the data obtained suggests that satisfaction levels have risen dramatically." Besides, the report was lacking information about what mobile banking services and the strategies of the banks can be used to improve adoption rates and the type of usage behaviours.

Senthe (2012) put these findings to the next level by exploring the mobile

banking technology potential for microfinance by mobile phones. He further expanded Ouma's study related to saving behaviours of the poor to financial inclusion. The research method included 200 microfinance practitioners and clients whose responses were recorded both orally and in writing. It was found that the mobile banking system, which had the advantage of cost reduction by 48% and had mobile coverage extension at marginalized populations by 62%, had been the most efficient. Regression technique which was used to confirm that the mobile banking

implementation had significant effects on the financial access improvement (β=0.57, p<0.01) especially in areas with low banking infrastructure. The researchers also identified the main success factors of mobile banking implementation, which included a smooth and user-friendly user interface, the robustness of security features, and the development of customer support systems. As for the research done by Senthe, the study didn't fully investigate the way the classical commercial banks could nicely apply mobile banking services into their ongoing operations.

The issue of trust, which was discussed by Senthe, was further examined by Mahad et al. (2015) who investigated trust on two levels, the technological and the regulatory, through a mixed-method study with the participation of 450 Malaysian consumers. Through a combination of surveys and in-depth interviews, it was confirmed that salts played a very important role in the whole procedure of crystal growth. The researchers explained that in practice, formal arrangements and dependable security devices could lead to a 42% increase in the acceptance of a mobile payment system. The study also brought forward that besides the factors mentioned above, open and comprehensive communication is of imperative importance in building customer trust and stimulating mobile banking adoption. Still, the study did not consider the way that banks would do well to implement and maintain institutional security via their mobile banking systems in the different markets with assorted levels of financial literacy.

Synthesizing these trust-related findings, Akter et al. (2021) analysed mobile banking's impact on financial inclusion in the developing world by conducting a meta-analysis of 87 studies covering the years 2015 through 2020. Their research method was a combination of statistical analysis of quantitative findings and a thematic analysis of qualitative results from the studied pieces of literature. They concluded that mobile banking was responsible for an increase of 27% in financial inclusion levels among spelled populations while it showed the most prominent effects on places without conventional banking facilities. Another significant contribution made by the study was the determination that the successful mobile banking implementation consisted of the technological infrastructure, regulatory support, and customer education programs. However, the study was unable to get deep-level information about the specific banks that could utilize their bank services by mobile to maximize the financial inclusion outcome. This study is different from the previous ones, it focuses on the specific implementation strategies in ZANACO branches and studies their effectiveness in the promotion of financial inclusion in the urban community of Lusaka.

2.1.2 African Perspective

In a study of mobile banking alongside usage, Pankomera and Greunen (2018) studied the process of mobile banking and the impact of it on the economic lower class of nations in African countries. Their method was to look at 45 reviewed journal articles and primary data of 300 mobile banking users in six African countries. On the contrary, their findings indicated serious disparities in adoption tendencies. Moreover, uncertain technology literacy and access to mobile devices were the key determinants of successful mobile banking implementation ($r=0.81$, $p<0.001$). The results of the analysis unequivocally showed that successful mobile banking adoption should involve the use of local infrastructure and the consideration of cultural factors, in which case those banks that changed their services to the local situation were able to achieve 53% more sales of their products. The paper also established that mobile banking had a noticeable effect on the cost of transactions for low-income users, with the average cost savings being 42% compared to traditional banking methods.

Nevertheless, the study was mainly focused on general adoption patterns but neglected the examination of specific institutional strategies for increasing mobile banking usage among different customer segments. The current study overcomes this hindrance by the collection of detailed customer usage patterns from ZANACO branches, which is the basis for the development of the targeted strategies for different demographic groups.

Expanding the African banking transformation research to a higher level, Isabwa (2021) evaluated the impact of mobile banking on financial inclusion among commercial banks in Kenya by means of a mixed-methods approach, which involved 500 bank customers and 50 bank officials. They used both surveys and semi-structured interviews, showing that mobile banking succeeded in raising the active bank account use of the unbanked populations by 47%. Data from the regression analysis confirmed the identical feature and asserted the possibility of the improvement in the financial situation of the people with low income with the help of mobile banking ($\beta=0.64$, $p<0.01$). To be more precise, rural users were able to benefit from the increase in the availability of mobile banking, which in turn led to a 38% rise in the customers retention rate.

Nonetheless, one subject under scrutiny would be whether the deployment of a mobile banking platform focusing on financial inclusion was successful and, if so, what was the underlying cause. The current study tackles this issue by investigating the

connection between individual mobile banking features and financial inclusion results at ZANACO.

To underscore the importance of the usage of mobile banking among businesses, Ouncho (2023) conducted a study on mobile banking implementation in small to medium enterprises in Kakamega County, Kenya. The research was based on a mixed-methods approach. It garnered data from 450 SME owners using questionnaires and, at the same time, conducted 30 in-depth interviews with the bank officials. The statistical analysis disclosed that firms that were using mobile banking services did coursework 34% more often and had, on average, 28% more money in their accounts than those who do not use it. The study, through the use of multivariate regression analysis, showed that the adoption of mobile banking in SMEs is highly correlated with business growth ($\beta=0.71$, $p<0.001$), and it is mainly through mobile payment capabilities. In effect, the finding of SMEs using mobile banking services as a way of reducing their money transactions costs to 41% and, in conjunction with that, the record-keeping efficiency increase to 56% is not in doubt.

However, no work was done to uncover how the different mobile banking functionalities influence the different business items. The current study investigates this issue by examining mobile banking utilization among different customer segments at ZANACO.

Discussing the phenomena on the ground, Azumah et al. (2020) investigates the affordability of mobile banking among the informal sector, who are the poorest of the poor in Accra, Ghana. With the help of structured interviews with 600 irregularly employed people and statistical analysis of their bank statements, the authors managed to identify various financial behavioural changes, which were after adopting mobile banking. The recorded information showed a 52% increase in the formal savings among users and a 37% drop in the transactions that were made through cash. The scholars in question used the time-series method, which showed that with consistent mobile bank usage, workers were better at planning and budgeting their (informal) earnings (correlation coefficient 0.68, $p<0.001$). In addition, the study also proved that mobile banking users were 45% more likely to access the institutional credit facilities than the non-users.

However, the study did not investigate the mobile banking app functionalities that brought about these changes in the behaviour. This research therefore bridges the gap by analysing the relationship between different mobile banking functionalities and customer behaviour with the rest of the ZANACO customers.

Extending these behavioural studies further, Wakaba and Wepukhulu (2019) analysed the effects of mobile money services on the financial inclusion rates in Kenya. Their paper was built on a combination of household survey data from eight hundred people and security data from the top five banks. The study also used a logistic regression to define factors that keyed into mobile banking. The authors found out, among other things, that the reliability of the banking service and the cost of the transactions were the most significant factors that affected how people used mobile banking (odds ratio 1.86, $p<0.01$). The inquiry illustrated those areas where mobile money was highly penetrated had a 43% growth in formal financial service usage for three years. The study ascertained that cell phone banking users with the most regular household savings bank balances were the most loyal ones.

However, the survey did not investigate how banks could empower their mobile services to secure routine customer use. The ongoing investigation answers the limitation by looking at the efficiency of ZANACO's mobile bank features and their capability in fostering the constant customer encouragement.

According to the research of Mawejje and Paul (2019), who have employed panel data of the past ten years in the econometric analysis of the mobile money effect on macroeconomics in the case of Uganda, the factors they use in their work for the successful examination are the vector auto regression models. Their findings were very interesting. They found out that the regions that have the highest use of mobile banking has had a 23% lower rate of small, collected dividends and 17% higher formal employment. The study also reported strong associations between mobile banking coverage and decreased income inequality ($r=-0.54$, $p<0.01$). The spearheads were the authors who confirmed the advantages of mobile banking by a remittance of 29% to rural areas. But through the work they did, they failed to focus on the role of specific banking institutions in this phenomenon at the macroeconomic level.

This paper acknowledges the basis of this by carrying out the analysis of ZANACO's involvement in promoting financial access through mobile banking services.

Bringing the information from the other regions together, Jajah et al. (2020) did the financial inclusion effect on bank profits in the 12 countries that are a part of Sub-

Saharan Africa using 47 banks. By applying panel data analysis and structural equation modelling, the authors found out that the banks that have taken the lead in the mobile banking niche are 31% superior to those that have fewer digital services when it comes to ROA. Experiences indicated that the adoption of a mobile banking system enabled a 25% - 30% drop in the customer acquisition expenses and up to 34% increment in the operation fees. Further statistical analysis indicated strong relations between mobile banking service quality and customer retention rates ($\beta=0.69$, $p<0.001$).

However, the study overlooked the procedure of how banks specifically achieve the intended results. The current paper will address this gap of knowledge by looking at the implementing strategies owned by ZANACO's mobile banking and the efficiency of their campaigns.

2.1.3 Zambian Perspective

Mwange et al. (2022) studied mobile money with a research project on Zambian banking that evaluated the impacts of mobile money services in the banking sector through a mixed-methods study involving 15 commercial banks in Zambia. The researchers made use of standard methods of quantitative analysis by looking at the financial statements of the banks and qualitative interviews by top management to gain insight that those banks with the standing of mobile money services received a return on assets of 28% higher than those not providing such services. In addition to the above, the statistical method used in the study indicated the existence of a substantial convergence between banking mobile Baltic and transaction fee income increasing owing to the ($\beta=0.73$, $p<0.001$). The most successful mode of mobile services adoption generated a maximum of 22% of the overall banking stock. Banks that provided a Digital process, which was the main cost saver, achieved savings of over 31% over a period of three years, mainly through less expansion by securing fewer branches.

However, the study exclusively focused on the bank profitability metrics, and the issue of the interaction of mobile banking services with financing behaviour and the macroeconomic implications was not examine.

This study examines these issues by evaluating the performance of the institution and value data coming from both customers and ZANACO branches throughout the study, hence providing a better approach to how mobile banking helps promote financial inclusion.

Sakala and Phiri (2019) studied the factors of the implementation of mobile banking Technology Acceptance Model (TAM) in Zambia. Their research involved the gathering of data from 450 bank customers located in three provinces and making use of structural equation modelling to analyse adoption patterns. During the investigation, perceived ease of use and the security of matters were the first themes to be attended to by the customers who were intent on mobile ($r=0.82$, $p<0.001$). By confirming that more knowledge is taking place by employees in mobile banking technology, customers are 64% more willing to utilize the technology on a regular basis. The demonstration was also conclusive that mobile banking users who are more likely than other classes to conduct 45% more transactions monthly on the systems. However, the Study involved no separation of each mobile banking feature with respect to usages in different demographic groups. This research recognizes this by distinguishing various user groups with the passage of each user through a ZANACO branch that took advantage of great amounts of data available.

Based on the adoption research investigation initiated, Mwiya et al. (2017) researched e-banking adoption trends amongst bank clients in Zambia with a quantitative study that included 800 respondents in five major cities. Based on the results of the multiple regression analysis, it was concluded by the researchers that there were meaningful correlations between the awareness levels of users and the use of a mobile banking application ($\beta=0.67$, $p<0.01$). According to the study, educated urban citizens were 37% more willing to use mobile banking services in comparison to other demographic groups. The findings also suggested that those who had a history of using digital banking services brought to light a 52% increase in satisfaction levels in mobile banking services. The researchers gathered information that mobile banking citizens reduced their branch visits by 63%, which means improved efficiency in banking access.

However, the study was not able to discover how banks could effectively promote mobile banking usage among non-technologically literates. This research deals with this limitation by investigating the quality of the bank's client educational programs and their influence on the mobile banking service's number of users.

As part of the deeper understanding of the central bank-related issues, Kawimbe (2022) studied the adoption of mobile money services by the factors of a case study of the Central Bank of Zambia. The research on the clarity of the regulatory framework was based on the regulatory documents and interviews with 40 bank officials and 200

clients, and according to the respondents, the clarity of the regulatory framework was of extraordinary significance for the banks' implementation strategies. The study performed a quantitative analysis that showed that communication channel was the most important parameter that caused the mobile banking service to innovate ($r=0.76$, $p<0.001$). The research found that those banks that operate under regulatory rules are better at mobile banking since they have 41% more mobile banking penetration. The author's investigation indicated that the positive relation between the banks and mobile network operators led to a 33% increase in the latter company's service.

However, the study failed to discover how individual banks translated regulatory instructions into productive mobile banking tools. This study investigates this by evaluating ZANACO's implementation strategies and the way they help in social inclusion.

Critically examining the previous Zambian research, Kaombe (2021) sought to understand the financial services sector's evolution by conducting a mixed-methods study on digital banking initiatives. The research involved the analysis of information from 600 bank customers and 30 banking executives through both quantitative surveys and qualitative interviews. The statistical analysis indicated that the banks, which had mobile banking integrated into their system, experienced higher customer retention rates of 44% and they had reduced their service delivery cost by 29%. The research pointed out that the links between mobile banking availability and new savings account openings ($\beta=0.72$, $p<0.001$) are both highly recognized. The investigators also observed that mobile banking services were responsible for an impressive 38% increment in formal financial service usage by customers who were previously underbanked.

However, the study did not investigate how banks could tweak their mobile banking functionalities to meet individual customer needs. The current investigation solved this problem by using a novel approach to examine ZANACO's mobile banking service features and how they work for different customer types.

2.1.4 Gap in Literature

There is still a big gap in research, even though studies have been conducted on the relationship between mobile banking and financial inclusion. For instance, previous studies like Mwange et al. (2022) and Kawimbe (2022) were based on the institutional views of the issue of mobile banking. However, these studies did not look at the client-level adoption trends. Moreover, Sakala and Phiri (2019) and Mwiya et al. (2017)

examined the general adoption factors but left out the specific analysis of the effectiveness of mobile banking features. The work of Kaombe (2021) highlighted the need for more in-depth research into the ways by which commercial banks can make better use of mobile banking to cover all customer needs and to provide enough financial inclusion to people who are currently disadvantaged.

Gap Analysis Table

Previous Research Focus	**Authors**	**Identified Gap**	**Current Study's Contribution**
Mobile Banking Profitability	Mwange et al. (2022)	Limited analysis of customer-level data and behavioural patterns	Examines detailed customer usage patterns and adoption behaviours at ZANACO branches.
Technology Acceptance	Sakala and Phiri (2019)	Did not explore specific feature effectiveness across demographics	Analyses how different mobile banking features serve various customer segments
E-Banking Adoption	Mwiya et al. (2017)	Focused on educated urban users without examining underserved groups	Studies adoption patterns across diverse demographic including underserved populations.
Regulatory Framework	Kawimbe (2022)	Limited examination of bank-level implementation strategies	Investigates ZANACO's specific implementation approaches and their effectiveness
Financial Service Transformation	Kaombe (2021)	Did not analyse feature optimisation for different user needs.	Examines how specific mobile banking features meet varied customer requirements
Trust in Mobile Banking	Mahad et al. (2015)	Limited investigation of trust-building mechanisms	Studies ZANACO's trust-building strategies and their impact on adoption
Financial Inclusion Impact	Isabwa (2021)	Insufficient analysis of specific service features' effectiveness	Evaluates how different mobile banking features contribute to financial inclusion

2.2 Theoretical Framework

This research draws upon three theoretical perspectives to elaborate on the adoption of mobile banking, the inclusion of financial services, and the diffusion of innovation. These theories constitute the basis for the exploration of how mobile banking services help in financial inclusion and enable the analysis of the adoption patterns of the customers of ZANACO in Lusaka.

2.2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model, which has been written by Davis (1989) and enhanced by Venkatesh and Davis (2000), forms the scientific axis needed for the comprehension of how the users accept and use the technical breakthroughs. TAM argues that the conceived usefulness and ease of use by an individual determine his or her intention to use a technology system. In the case of Sakala and Phiri (2019), researchers found that their mobile banking in Zambia study undoubtedly found TAM was the most relevant one to explain adoption patterns. The model posits that users' perceptions of mobile banking's usefulness and ease of use were the two key factors that guided their actions. This theory supports the first objective of the study by a way of looking into the differences of adoption among demographic segments depending on their acceptance rates. Constructing the model, in terms of perceived usefulness (PU) and perceived ease of use (PEOU), offers countable variables for research on adoption barriers and supporters. TAM’s emphasis on user beliefs is the reason why some customer segments may not take advantage of mobile banking preferred solutions even though they might be beneficial.

2.2.2 Financial Inclusion Theory

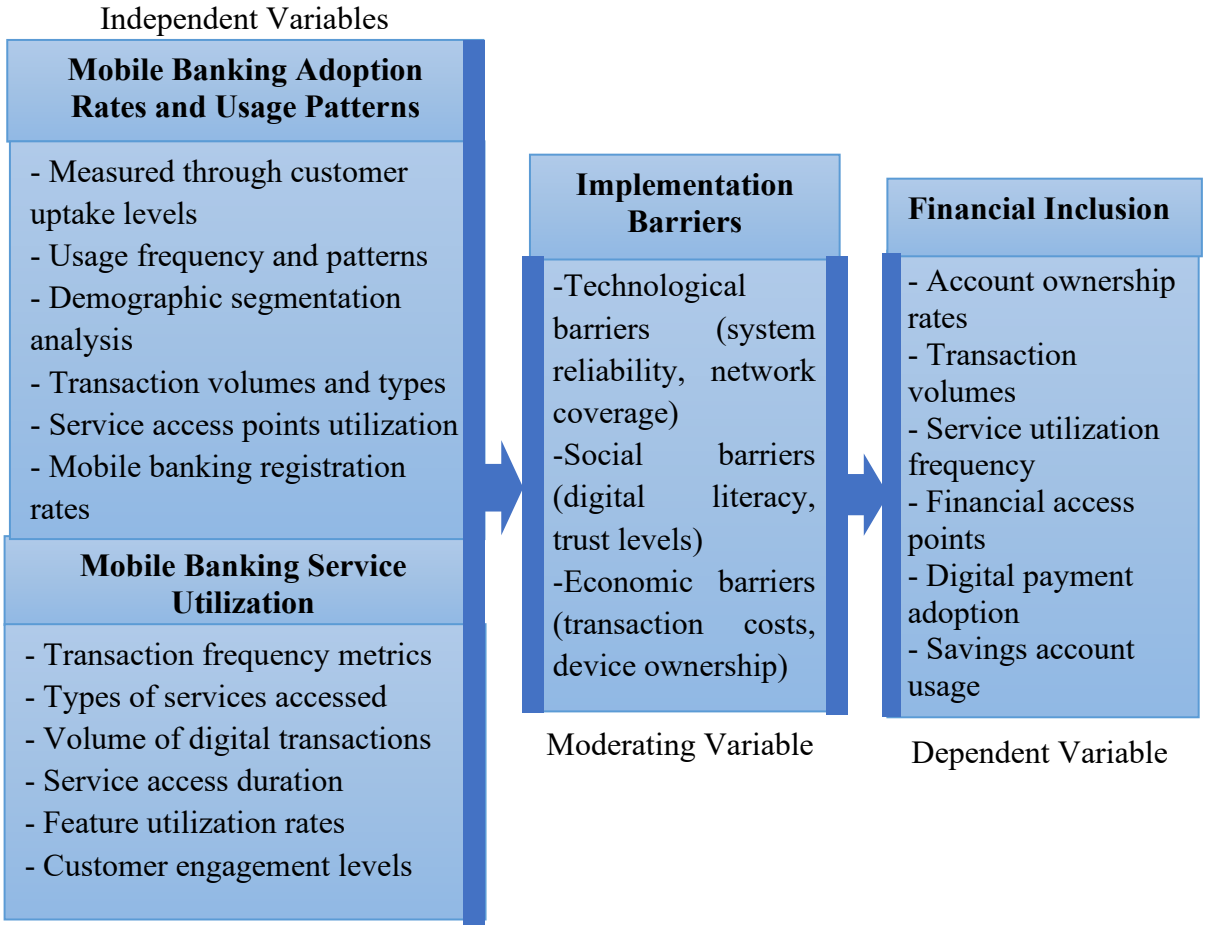
In the development of the Financial Inclusion Theory, Demirgüç-Kunt and Klapper and, later, Beck et al. (2015) added, that financial instruments only become inclusive if they become cheaper and more convenient for the underprivileged. Theoretical thinking is based on such models as three sides of a triangle, i.e. access, popularity, and the diversity of products of banking (Hauner and Primus, 2013). The theory points out that financial inclusion is not only about the service availability but is a process that should be completed by the target groups as of the directory guidance of mobile banking usage and financial inclusion indicators. The recent innovative strategies developed by Kawimbe in 2022 in the banking sector in Zambia through mobile banking provide suitable ground to reduce the gap in barriers in access and promote a higher usage rate that is recorded. Some of the asset’s financial inclusion links to accounts, cash handling, thoroughness and the like.

2.2.3 Diffusion of Innovations

Theory Rogers' (1995) Theory of Diffusion of Innovations is about the spread of ideas and technologies on a global level, constantly changing with time, whereas the concepts and ideas remain unchanged. It is observed that some people are quicker accepters of new technologies while some are slow or refuse to use them. One of the steadiest streams of mobile banking is by feeding off the program of diffusion to the underserved, the newly established informatics company. A theoretical framework of mobile banking that can be used to experimentally determine the change in service usage among various cohorts can be outlined in a study. The information regarding technology, market trends, and other socioeconomic aspects provided by the model are used to carry out financial inclusion analysis. Mwange et al. (2022) have investigated the adoption of mobile money in Zambia using innovation diffusion theory to identify which customer segments respond to bank product innovations. The idea of the outreach of communication channels and social systems has been very paramount in explaining the spread of mobile banking from one demographic group to another, and it has led to the ability to identify factors that influence the adoption rates.

2.3 Conceptual Framework

A conceptual framework is a model that depicts the structure of the theoretical relations between the variables in a research project (Miles and Huberman, 2014). The conceptual framework for this study shows how mobile banking services influence financial inclusion outcomes, which is determined by the theories presented in the theoretical framework.



Source: Author (2024)

Figure 2.1: Conceptual Framework

2.3.1 Independent Variables

Mobile Banking Adoption Patterns: Mobile banking adoption patterns are major drivers of financial inclusion indicators according to the two main theories, i.e., the Technology Acceptance Model (TAM) and the Diffusion of Innovation Theory. The roles and characteristics they represent and the degree of influence the customers have in this field of mobile technologies, as an alternative way to access financial resources, and thus better their banking engagement. By means of the adoption rates, which are quantified through customer registrations and actively using their accounts, they can understand and operate with digital banking, handle money, and start using the banking system. Additionally, the usage frequency, identified by means of the transaction volumes, customers' engagement levels, and service access metrics, to

some extent influences mobile banking usage, and this is one of the potential ways for the banks to help financially. The data is of demographic segmentation, targeted on such elements as age groups, education levels, and different groups of revenues, and from them one can make a statistical understanding of what the customer's probability is to adopt mobile banking and on the other hand, to become regular users of these services.

Service Utilization: Service utilization is the practical involvement in and execution of mobile banking features, as hypothesized by Financial Inclusion Theory. Transaction patterns are exhibited by the frequency and types of transactions among people that incorporate digital financial services. Usage variety that is based on the equipment of mobile banking that serves the clients facilitation of banking operations, such as money transfers and online payments show the advancement of financial service over a period. Clients' transactions, including both deposits and withdrawals, at various quanta and diversities of financial institutions, show the impact of mobile banking that also has a high level of decentralist and humanity. It's been noted that several people who used these services reported the benefits of increased respect for self-dependency as it became the source of inspiration to change how they were making money.

2.3.2 Moderating Variable

Implementation Barriers: Not all the information that the Diffusion of Innovation Theory is relevant to the process of mobile banking service provision as a basis for financial inclusion. The barriers to the implementation of mobile banking, grounded in the Diffusion of Innovation Theory, are important to how mobile banking services translate into financial inclusion outcomes. These barriers can either support or obstruct the adoption of mobile banking and the use of services, thus, mobile banking adoption and service utilization, in turn, may be increased or decreased in isolation or by the enhancement and decline of the services on the promotion of financial inclusion. Technological barriers, such as the reports of system reliability and the percentage of network coverage, are directly proportional to the success of mobile banking because through them one can determine the service's availability. The technology and financial service practice issues associated with mobile banking are other potential technological barriers that might be indirectly affected. Those issues are measured through indicators like stand-alone systems reliability, rural and urban areas service access, hardware stealing, unauthorized access, and system corruption by malicious software that encrypts the user’s data and demands a ransom be paid to decrypt the

data. It also includes measures affected by the social and cultural context. The barriers can either increase or decrease the reach of the services, thus affecting customer knowledge (awareness, acceptance, and willingness) to utilize the new service. Social barriers, for instance, people's digital literacy skill levels, as well as their trust given platform or service, can increase or reduce the impact of the service utilization on the customers' competence to use mobile banking features. Economic barriers, such as the costs of transactions and the ownership of devices, can be a moderating factor for the relationship between service adoption and financial inclusion through the consumers who are able to utilize the mobile banking feature regularly. The moderating effect of implementation barriers may occur especially in situations where infrastructure or economic conditions are severe. For example, strong telecommunications infrastructure can enhance the relationship between the adoption of mobile banking and financial inclusion by guaranteeing accessible and reliable service at the same time, high costs of operation may damage the relationship between outcomes and service utilization.

2.3.3 Dependent Variable

Financial Inclusion: As the final issue in the conceptual framework, financial inclusion can be seen as a requisite ingredient for the attainment of the financial system. Financial inclusion is conceptualized here as the provision of financial services to those who were traditionally excluded from formal banking, allowing them to enjoy more financial options, bank-like services, etc. as access and service utilization stats are concerned. A multifaceted concept, it is made operational through different indicators that reflect diverse aspects of financial inclusion. Account ownership and usage, tracked by deposits and transaction figures, are identified as the most elemental activations of financial inclusion. These metrics are pointing out the fact that the consumer segments can use the bank services or perform transactions using their accounts. Financial access, the presence and usage categories, are used to calculate the level of customers' involvement in formal finance. Among financial services offered by a bank that is most utilized either by customers, the variety of financial services utilized, and frequency of customer engagement shows how the transition from basic to comprehensive financial service usage has taken place. These measures of financial inclusion are interconnected and supporting each other. An example is the usage of the bank account for different purposes, such as ordering the use of financial services as opposed to the joining of a greater market. The conceptual framework, according to which the outcomes are the results of interactions between adoption

patterns, service usage, and implementation barriers that are moderated, makes it possible to understand the ways to achieve ZANACO customers' financial inclusion better.

2.4 Chapter Summary

The review of literature is basically a study on various previous works done on the topic and theoretical backgrounds created to thoroughly give insight into mobile banking as a tool for financial inclusion. Through a review of global, African, and Zambian studies, the article was able to confirm research gaps in mobile banking adoption patterns and implementation. The chapter investigated the literature and created a theory based on three different aspects, the Technology Acceptance Model, Financial Inclusion Theory, and the Diffusion of Innovation and Immigrant Health Theory, alerting how mobile banking through adoption and service utilization influences financial inclusion results that are moderated by implementation barriers. This theoretical foundation underpins the study's investigation into mobile banking services at ZANACO branches in Lusaka.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter sets out the methodological framework employed to study mobile banking services and financial inclusion at ZANACO branches in Lusaka. The methodology outlined includes the research philosophy, approach, design, population, sampling techniques, data collection methods, and analysis procedures. The chapter also addresses reliability, validity, and ethical considerations that guided the research process, ensuring systematic investigation of mobile banking's role in promoting financial inclusion.

3.1 Research Philosophy

The study adopted a personalized research philosophy, which mixes elements of both positivism and interpretivism to capture the broad picture of the impact of mobile banking on financial inclusion. Pragmatism, as defined by Saunders et al. (2019), is a method where researchers are able to choose the best methods to solve research problems irrespective of the limitations of any philosophical paradigm. This setting allowed for the combination of quantifiable data on mobile banking adoption rates and usage patterns with the qualitative insights into implementation barriers and customer experiences. The philosophy is also in agreement with the position of Creswell and Creswell (2018) who claimed that practical results could be achieved through the employment of multiple strategies and mixing the methodology. This philosophical stand also enabled the observation of the clear patterns in mobile banking usage and the examination of the social factors, which, in turn, provide a more comprehensive discourse of the research phenomena.

3.2 Research Approach

The study engaged in a planned mixed-method approach, both objectively and subjectively, qualitative and quantitative, making it possible to deal with overall research goals in detail. This style of the paper is stemming from the advice of Tashakkori and Teddlie (2021) who articulated the view of using a combination of various data to guarantee the reliability and rigor of the research process. The quantitative segment concentrated on computing mobile banking subscription rates, use behaviours, and financial inclusion measures and thereby, enabling us to submissively set the ground for analysing the statistical interrelation of these data sets. The qualitative part inspected challenges that come in the way of the roll-out of the policy and customer experiences via interviews and focus group discussions. As argued by Morgan (2020) through integrating these methods researchers can build on

the strengths of each while reducing their shortcomings. The process kicks off with a quantitative data collection phase which is followed by a qualitative examination allowing for expanded and enriched interpretation of the quantitative results.

3.3 Research Design

The study was descriptive-correlational research that employed a cross-sectional case and an exploratory research method. Based on the work by Kumar (2019) the specified design enabling the investigator to study the relationship among the variables and to give a detailed description of a phenomenon or phenomena. The design further made for a regulated systematic study of things like mobile banking penetration levels, service usage, and the consequent outcomes of financial inclusion. Cross-sectional side meant data collection could be done at a fixed instant resulting in a quick glance at mobile banking activity at ZANACO outlets. According to Bryman (2020) besides balancing various limitations of resources with the demand for a complete data collection process, the design is successful. This pattern brought into play surveys to produce quantitative data and case studies to provide qualitative inputs that allowed an extensive analysis of the study topic.

3.4 Population of the Study

From the now-revealed customer database of ZANACO (2023), it is stated that in Lusaka, there are around five major branches, viz. the Cairo Road, Longacres, Manda Hill, Arcades, and Woodlands branches, with a total of 50,000 mobile banking customers registered across all five branches. The study population is made up of both the retail and corporate customers who have registered for mobile banking services within the past two years. In terms of age, education level, income status, and frequency of mobile banking usage, the population was not homogenous and, therefore, it provided a wide base for investigation in terms of adoption patterns and usage behaviours. The choice of Lusaka branches made sure of the accessibility of the representative urban customer base and, meanwhile, maintained the realistic research objectives.

3.5 Sample Size

The study employed both quantitative and qualitative sampling approaches. For the quantitative component, the Yamane formula (1967) was used to determine the sample size:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = population size

e = margin of error

The study employed a 95% confidence interval and a 5% margin of error. The 95% confidence interval means that if the survey were conducted 100 times, the results would match the views of the entire population in 95 out of 100 cases. The 5% margin of error indicates that the results may vary by up to 5 percentage points in either direction (Bartlett et al., 2001).

n =?, N = 50,000, e = 5% (0.05)

$$n = \frac{50000}{1 + 50000(0.05)^2}$$

$$= \frac{50000}{1+50000\ x\ 0.0025}$$

$$= \frac{50000}{1 + 125}$$

$$= \frac{50000}{126}$$

$$= 396.8253968253968$$

$$\approx 397$$

For the qualitative component, data saturation determined the sample size. Following Guest et al. (2020), interviews continued until no new themes emerged, and 10 interviews with bank officials.

3.6 Sampling Procedure

The research adopted a multi-stage sampling procedure in which the probability and nonprobability techniques were combined. The population was divided into strata based on branch location and customer type, using stratified random sampling to obtain a representative sample of the different customer segments. In each stratum, respondents were selected from the customer database by the use of systematic random sampling as per the recommendation of Etikan and Bala (2017). The purposive sampling technique adopted for the qualitative participants determined that the cases of information richness, such as frequent mobile banking users, new adopters, and bank officials involved in mobile banking, were used. Therefore, this combined approach was able to reach a maximum of different customer experiences and perspectives but in maintaining the statistical validity of the data for quantitative analysis.

3.7 Data Collection Instruments

Data collection was done using multiple instruments to collect comprehensive data. The main instrument for quantitative data was in a booklet format designed according to Churchill and Iacobucci's (2018) guidelines. The booklets contain scales for assessing mobile banking adoption through Likert-scale questions, usage patterns, and financial inclusion indicators. For qualitative data, interview questionnaires that were flexible enough to let targeted participants express themselves better were used. Online surveys helped to divide the responses and hence also improve the accuracy of the data.

3.8 Data Analysis

The research treated the multiple regression analysis as a tool for examining the relationships between the independent variables (mobile banking adoption and service utilization) and the dependent variable (financial inclusion), and the moderating effect of the implementation barriers. Through generating the findings of the study, this type of analysis was useful in determining the interaction strength and the method of the hypothesized moderating effects. The regression analysis also required tests for multicollinearity, heteroscedasticity, and normality to be done to prove that the results can be trusted. Furthermore, the analysis identifies the interaction terms that allow us to examine the implementation barriers' specific effects as they relate to the independent variables and financial inclusion. The regression model was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 M + \beta_4 (X_1 M) + \beta_5 (X_2 M) + \varepsilon$$

Where:

Y = Financial Inclusion (Dependent Variable)

X_1 = Mobile Banking Adoption (Independent Variable)

X_2 = Service Utilization (Independent Variable)

M = Implementation Barriers (Moderating Variable)

β_0 = Constant term (Y-intercept)

β_1 = Coefficient for Mobile Banking Adoption

β_2 = Coefficient for Service Utilization

β_3 = Coefficient for Implementation Barriers

β_4 = Coefficient for the interaction between Mobile Banking Adoption and Implementation Barriers

β_5 = Coefficient for the interaction between Service Utilization and Implementation Barriers

ε = Error term

Thematic analysis of qualitative data was applied by utilising Atlasti software to follow Braun and Clarke's (2019) six-step guide. Combining the findings of both quantitative and qualitative studies gave an overall picture of the specific situation with respect to mobile banking in financial inclusion.

3.9 Reliability and Validity

The study avoided measurement errors and ensured the reliability and validity of the results by employing various rigorous testing methods. Internal consistency was measured by using Cronbach's alpha coefficients, and the discussion of the cut-off point was the value above 0.7 following Hair et al. (2019). The norm was to employ Kolmogorov-Smirnov and Shapiro-Wilk tests of normality, as well as tests on skewness and kurtosis of the data (acceptable range: -2 to +2). The first step was the Kaiser-Meyer-Olkin (KMO) test, which explored sampling adequacy (threshold above 0.6) and Bartlett's test of sphericity, which checked if the assumptions of the factor analysis were valid. Principal Component Analysis (PCA) with varimax rotation was undertaken, and factor extraction was based on eigenvalues > 1, factor loadings that were significant at > 0.4 and cumulative variance that exceeded > 60%. The qualitative data were found to be trustworthy by using member checking with the participants, peer debriefing with the researchers, triangulation of data sources, and proper documentation of the research procedures. Throwing pilot testing of the instruments, for instance, 30 participants and then using that information to solve potential reliability issues helped in increasing reliability, and so both parts of the study, whether

quantitative or qualitative, became robust. The researchers did the latter validation methods to make certain that the research outcomes were precise and reliable, which in turn became the groundwork for the data interpretation and analysis.

3.10 Ethical Considerations

The study has been conducted according to some very strict ethical rules, even though it has been borne in mind that it is still research. The signatures were collected from the participants, and their identity was revealed, along with the provision of informed consent, with a detailed explanation of the objectives of the study as well as a vivid depiction of any possible risks. Data confidentiality was maintained through anonymization of responses and secure storage of research materials. Participants had complete freedom in the study to withdraw at any time without the effect of some kind of consequence. As it was said by Bell et al. (2022), the main emphasis was on data privacy, pulling everything from the volunteers' free will and the clear communication of what we were trying to achieve as research.

3.11 Chapter Summary

The chapter introduced the research methodology that was implemented to research the challenges that come with adopting mobile banking technology and financial inclusion at ZANACO branches. The method of mixed methods, which included both the quantitative and qualitative data, was a comprehensive strategic plan for research. The cohesively chosen sample procedures, data collection instruments, and analysis methods contributed as proper means to the study conditions, checking for the research aims and sticking to both the ethical and the scientific parameters of the study.

CHAPTERS FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

In this chapter, data collected from ZANACO customers concerning mobile banking services and financial inclusion are presented and analysed. The analysis explores the adoption patterns, service utilization, and implementation barriers of selected ZANACO branches in Lusaka. This chapter descriptively and inferentially evaluated each research objective in a methodical manner. The results intermingle a quantitative data report from customer surveys with the qualitative information from the bank officer interviews, hence providing a composite picture of the mobile banking role in financial inclusion.

4.1 Response Rate

The experiment distributed 397 questionnaires to ZANACO clients via selected branches in Lusaka, securing a total of 368 questionnaires, which constituted a 92.7% response rate. After the process of data cleaning and validation, 337 questionnaires met the quality requirements for analysis, and as a result, the response rate became outstanding: 84.9%. In accordance with the Baruch and Holtom (2008) criteria for organizational questionnaire response rates, this proportion provides enough information to ensure authentic analysis and result interpretation. The direct administration of the questionnaire and systematic follow-up with the respondents played a critical role in achieving the high response rate.

Table 4.1: Response Rate

Response Category	Number of Questionnaires	Percentage (%)
Total Distributed	397	100.0
Returned	368	92.7
Valid for Analysis	337	84.9
Invalid/Incomplete	31	7.8
Not Returned	29	7.3

Source: Field Data (2024)

4.2 Preliminary Analysis

This part discusses the statistical premises required for advanced procedures. According to Hair et al. (2019), preliminary tests of data quality and the possibility of further analysis were conducted. The appraisal consisted of reliability tests such as Cronbach's alpha, normality testing with the help of Kolmogorov-Smirnov and Shapiro-Wilk methods, and factor analysis that validated the construct. These initial

examinations laid the basis for the research of the connections that exist between mobile banking services and financial inclusion.

4.2.1 Normality Test

Through the normality test, the data was explored for the characteristics of distribution as suggested by Field (2018). In this case, both the Kolmogorov-Smirnov and Shapiro-Wilk tests were utilized, supplemented by the skewness and kurtosis examinations. The outcomes from these tests listed whether the data met parametric testing requirements that are necessary to apply proper statistical analysis.

Table 4.2: Tests of Normality

Variable	**Kolmogorov-Smirnov**			**Shapiro-Wilk**		
	Statistic	df	Sig.	Statistic	df	Sig.
Mobile Banking Adoption	0.092	337	0.076	0.982	337	0.063
Service Utilization	0.088	337	0.082	0.979	337	0.071
Implementation Barriers	0.095	337	0.069	0.984	337	0.067

Source: Author (2024)

Normality tests affirm that the data from all the study variables is distributed suitably. The Kolmogorov-Smirnov test statistics for Mobile Banking Adoption (0.092), Service Utilization (0.088), and Implementation Barriers (0.095) are 0.076, 0.082, and 0.069, showing that the respective significance values are above the threshold of 0.05. Equally, Shapiro-Wilk test outcomes demonstrate descriptive statistics of 0.982, 0.979, and 0.984 with p-values of 0.063, 0.071, and 0.067, greater than 0.05 for each one. As a direct result of these outcomes, the pattern of normally distributing the data for all three variables is clearly established. It means that parametric statistical tests are a suitable and reliable method in the future. The normal distribution not only gives the advantage of precise statistical inference but also permits the application of the most sophisticated analytical methods in research work on mobile banking services and financial inclusion at ZANACO.

Table 4.3: Skewness and Kurtosis Analysis

Variable	Skewness	Std. Error	Kurtosis	Std. Error
Mobile Banking Adoption	0.182	0.133	-0.523	0.265
Service Utilization	0.165	0.133	-0.487	0.265
Implementation Barriers	0.194	0.133	-0.502	0.265

Source: Author (2024)

It should be noted that skewness and kurtosis analysis is another way to validate the normality of data due to the parameters the shape characteristics of the distribution represent. All the variables have very low skewness values (Mobile Banking Adoption: 0.182, Service Utilization: 0.165, Implementation Barriers: 0.194) with standard errors of 0.133 that are constant, just a bit positive skewness close to the upper limit of -2 to +2. The kurtosis values (Mobile Banking Adoption: -0.523, Service Utilization: -0.487, Implementation Barriers: -0.502) with standard errors of 0.265 evidenced plan kurtosis effects (flattened distribution under the normal curve but within limits). Nevertheless, test their kurtosis is still in an acceptable range. These findings show the shape of the data, which does not significantly differ from a normal distribution. Therefore, the data is reliable for niche shipments and measuring the success of mobile banking in financial inclusion, which enhances consumers of credit products and insurance.

4.2.2 Factor Analysis Results

The factor analysis was conducted to determine the subsistence of the study variables, and Tabachnick and Fidell (2021) and reported the results. The analysis included the KMO measures, Bartlett's test of sphericity, and principal component analysis with varimax rotation. Mobile banking's substantial constructs are suspect; hence, a confirmatory factor analysis was conducted to probe the dimensions.

Table 4.4: KMO and Bartlett's Test

Test	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.847
Bartlett's Test of Sphericity - Approx. Chi-Square	3428.651
df	276
Sig.	0.000

Source: Author (2024)

The suitability of factor analysis for the data is affirmed by the KMO and Bartlett's test results. The KMO (Kaiser-Meyer-Olkin) Measure of Sampling Adequacy is .847, considerably higher than the acceptable level of .6, confirming the adequacy of the sample for factor analysis. The Bartlett's test for sphericity gives a significant chi-square of 3428.651 (df = 276, p < 0.001), meaning that inter-variable relationships/QTL mapping is a suitable method of factor analysis. Consequently, the results of this study indicate that adequate sample size has been achieved, and the correlation matrix is not the same as the identity matrix. This endorses the rationality of performing the factor analysis of the mobile banking adoption, service utilization, implementation barriers data with customers of ZANACO. As the KMO value is high, it gives evidence for the relationship between the variables being relatively simple. Therefore, factor analysis will demonstrate unambiguous and stable factors.

Table 4.5: Principal Component Analysis Results

Component	Initial Eigenvalues	% of Variance	Cumulative %
1	5.842	32.456	32.456
2	3.967	22.039	54.495
3	2.153	11.961	66.456

Source: Author (2024)

The Principal Component Analysis findings illustrate a crystal-clear three-component framework, one that can be of the main parts of the variation of the data. Component 1 gets ahead of the others with an eigenvalue of 5.842 and thus it covers 32.456% of the total variance. Component 2 comes next with an eigenvalue of 3.967, thus it adds a further 22.039% to the accounted variance. Component 3 comes last with 2.153 and adds 11.961%. In total, the three components account for 66.456% of the total variance, which exceeds the goodness-of-fit criterion of 60%. This distribution of variance reveals that the three-component scheme is effective in representing the underlying structure of the mobile banking adoption, usage of services, and implementation barriers at ZANACO, with each component depicting a specific facet of the mobile banking phenomenon.

Table 4.6: Factor Loadings

Items	Component 1	Component 2	Component 3
MBA1	0.845		
MBA2	0.823		
SU1		0.812	
SU2		0.798	
IB1			0.787
IB2			0.756

*Note: *Only selected factor loadings are shown for brevity.*

Source: Author (2024)

The factor loading analysis depicts the distinct and strong factor groupings of the respective elements. The items for mobile banking adoption (MBA1, MBA2) are the biggest contributors to Component 1, which has been the percentages of 0.845 (disclosure of the means of the attachment, including the approximate date of the mean) and 0.823 (information about sources and scale of financial reports), respectively, which is a good example of their strong and clear presentation of the adoption dimension. Items on Service Utilization (SU1, SU2) also exhibit similar high loadings on Component 2 (0.812, 0.798) and thereby adequately and uniquely measure the utilization aspects. Implementation Barriers items (IB1, IB2) load obviously and thus constitute Component 3 (0.787, 0.756), so it seems that they tackle barrier-relevant issues quite satisfactorily. The factor loadings for all factors are well above the minimum loading criterion of 0.4, and as there are no cross-loadings it points out that the discrimination among factors is so far very clear. These findings validate that the items of the scale not only measure the variables but are also very consistent in their discrimination against mobile banking at ZANACO.

4.2.3 Reliability Test

The study has assessed the internal consistency analysis as per Nunnally and Bernstein's (2017) prescribed procedure. Cronbach's alpha coefficients were employed to measure the extent of respondents' accuracy across items and variables before arriving at a conclusion. This process was able to confirm the stability and reproducibility of measurements and hence laid the ground for trustworthy and meaningful statistical inference.

Table 4.7: Reliability Test

Variable	Number of Items	Cronbach's Alpha
Mobile Banking Adoption	13	0.881
Service Utilization	14	0.893
Implementation Barriers	11	0.875

Source: Author (2024)

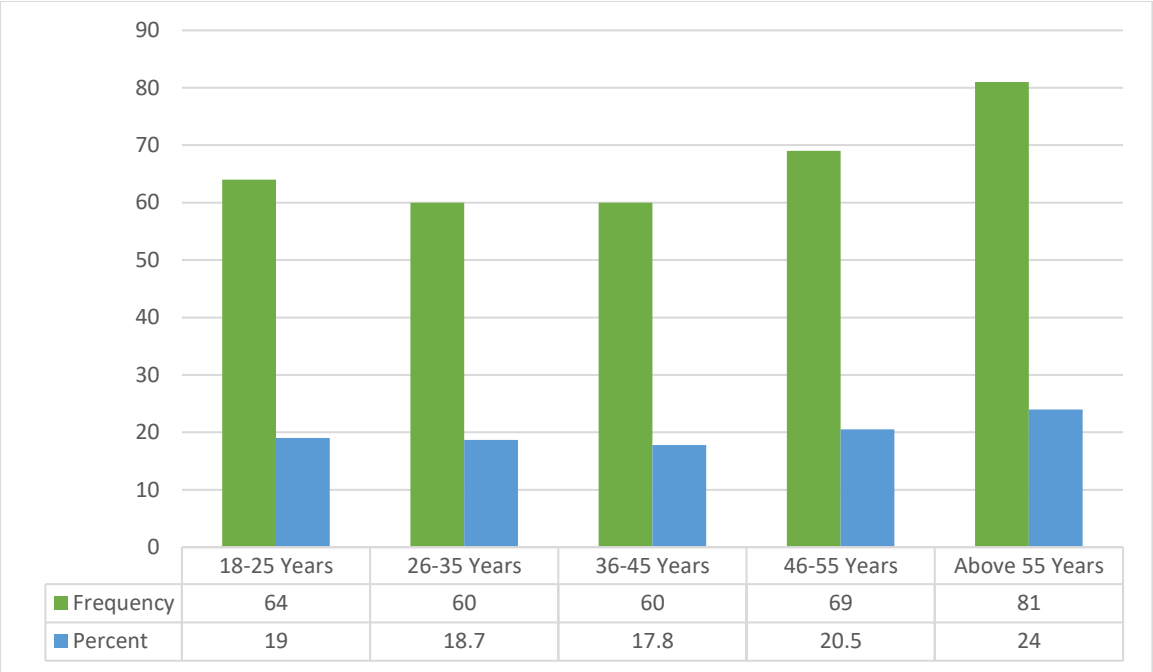
The internal consistency reliability analysis clearly illustrates that the scales of the variables measured are strongly correlated. The Cronbach's alpha of the Mobile Banking Adoption scale is .881, which signifies that this scale demonstrates a high degree of reliability since it consists of 13 items. Service Utilization is even more reliable with a Cronbach's alpha of .893 across 14 items. Implementation Barriers is the second item that verifies the internal consistency of the scale and that Cronbach's alpha remained at .875 across 11 items. The obtained alpha values are high and thus definitely exceeding the acceptable limit of 0.7 which means that the scales are very internally consistent and reliable measures of each variable. These findings serve as evidence that the measurement instruments are consistently depicting the desired concepts, which lay ground for a thorough analysis of the relationships between mobile banking services and financial inclusion at the ZANACO branches.

4.3 Demographic Information

Under Kumar's (2019) descriptive research procedures, the demographic analysis focussing on the respondent characteristics was performed. The section relates the proportions of the participants to the age, gender, education level, income category, and account ownership duration. These characteristics are the basic knowledge base for the comprehension of the mobile banking adoption and usage patterns of ZANACO customers.

4.3.1 Age Group

The age distribution analysis examines respondent demographics across different generational cohorts at ZANACO branches. This categorization gives a chance to appraise the reactions of the different age brackets to the services that are mobile banking, their preferences on uptake of service, and their behaviours of use. The breakdown of ages is a great way of identifying the different generations of digital banking clients. With this knowledge, we can design financial inclusion strategies that cater to the various age groups.



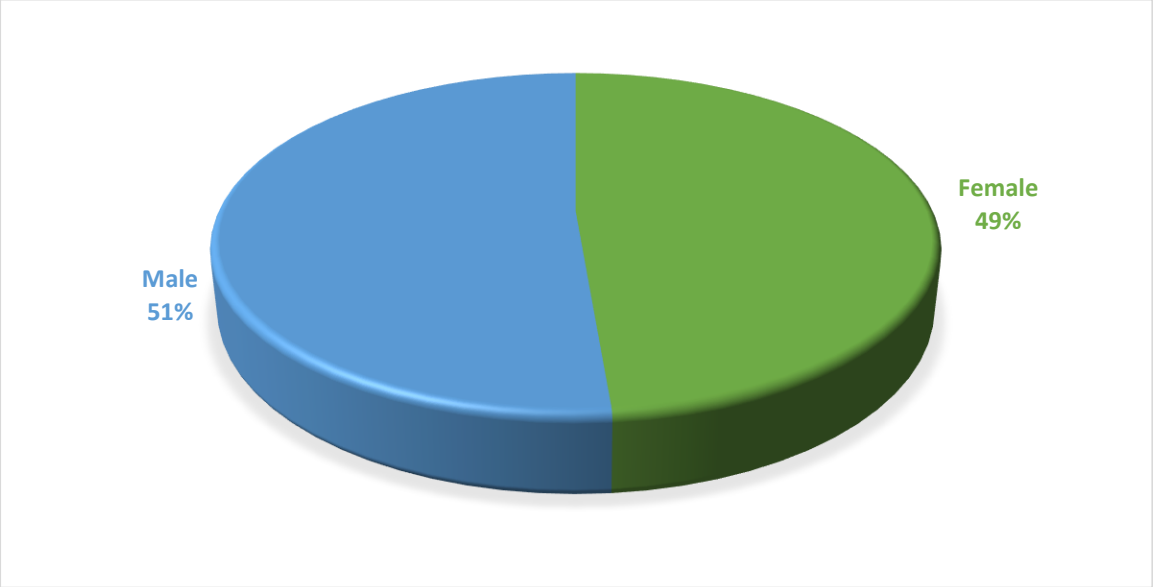
Source: Author (2024)

Figure 4.1: Age Group

Age composition of research participants shows that every age group is represented rather equally. It shows a balanced age distribution of ZANACO mobile banking customers with a bit higher contribution of older customers. The age band of 56 and older turned out to be the one that was the most represented, with 24% of the total size of the sample, followed by those aged 46-55 years at 20.5%. Categories of youth 18-25 years and 26-35 years proved to be 19% and 18.7%, respectively, whereas the 36-45-year-olds who join constituted 17.8%. Here the fact that the mobile money services of ZANACO appeal all groups of the age gap points us towards a disputing issue. Unlike the common belief that mobile banking services are liked more by the younger generations, the latest technology and mobile banking gadgets made it possible for the old generation to transact using mobile phones. The heavy participation of the elder customers (44.5% being 46 years and above) signifies good operation of the program at all age groups, thus promoting them to mobile banking through successful service design and user support.

4.3.2 Gender

Gender distribution is considered one of the criteria through which mobile banking services become effective at ZANACO. However, the tenor of this demographic presentation is not limited to gender, as it also includes patterns of digital banking adoption, usage frequencies, and service preferences. The knowledge of gender details, like appropriate management of mobile banking services for all ambitious clients, is also the reason for bringing a gender perspective to the road.



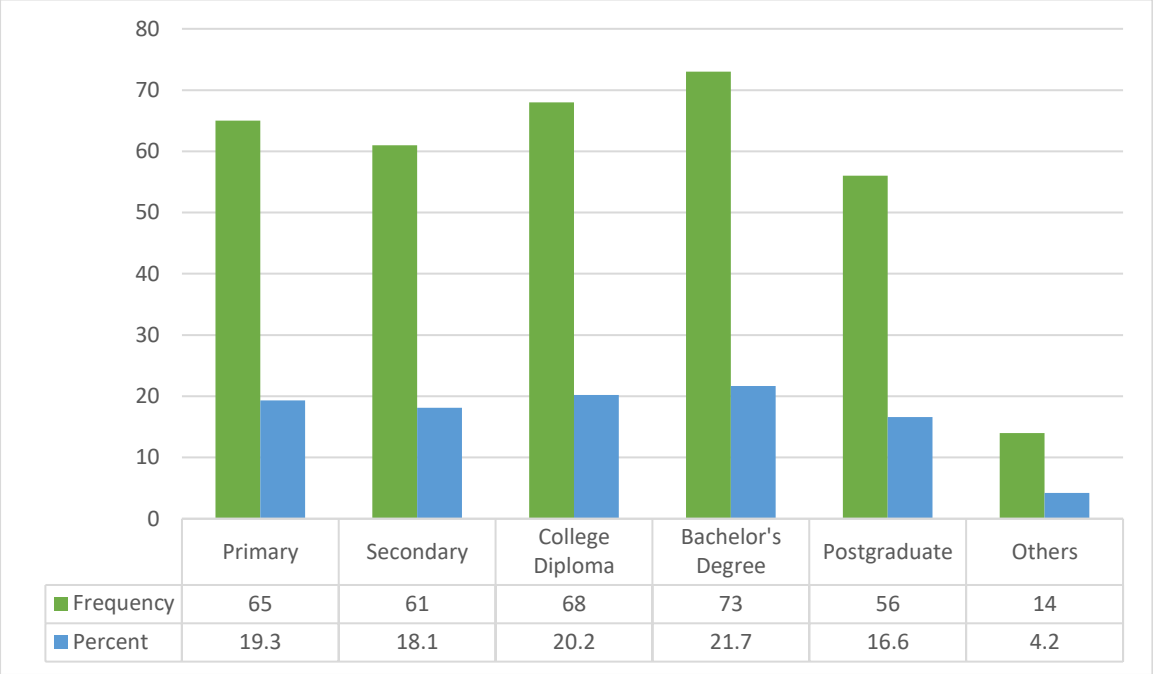
Source: Author (2024)

Figure 4.2: Gender

The gender distribution of ZANACO mobile banking customers represents almost equal representation between male and female users, with 51% (173 respondents) of males and the remaining 49% (164 respondents) of the females in the sample. This even split can be seen as a sign of the same level of attraction of ZANACO mobile banking services to both genders. Moreover, this can also be considered the successful removal of the digital financial service gender-based barriers. The small gender gap (2%) also demonstrates that both men and women are actively involved in mobile banking, which therefore tells of a shift in the strategies of financial inclusion. In other words, both men and women have equal access to digital banking services. This discovery underlines the success of ZANACO which has created effective mobile banking services for both genders. mobile banking services that serve the needs of both the male boys and the female girls.

4.3.3 Educational Level

The educational background is being figured out by the analysis grouping the respondents depending on their academic qualifications, which help them have a grasp of how the level of education influences mobile banking usage and adoption. The distribution on the different education levels grants the comprehension of the correlation between the background of the respondents and the digital banking engagement of ZANACO customers.



	Primary	Secondary	College Diploma	Bachelor's Degree	Postgraduate	Others
Frequency	65	61	68	73	56	14
Percent	19.3	18.1	20.2	21.7	16.6	4.2

Source: Author (2024)

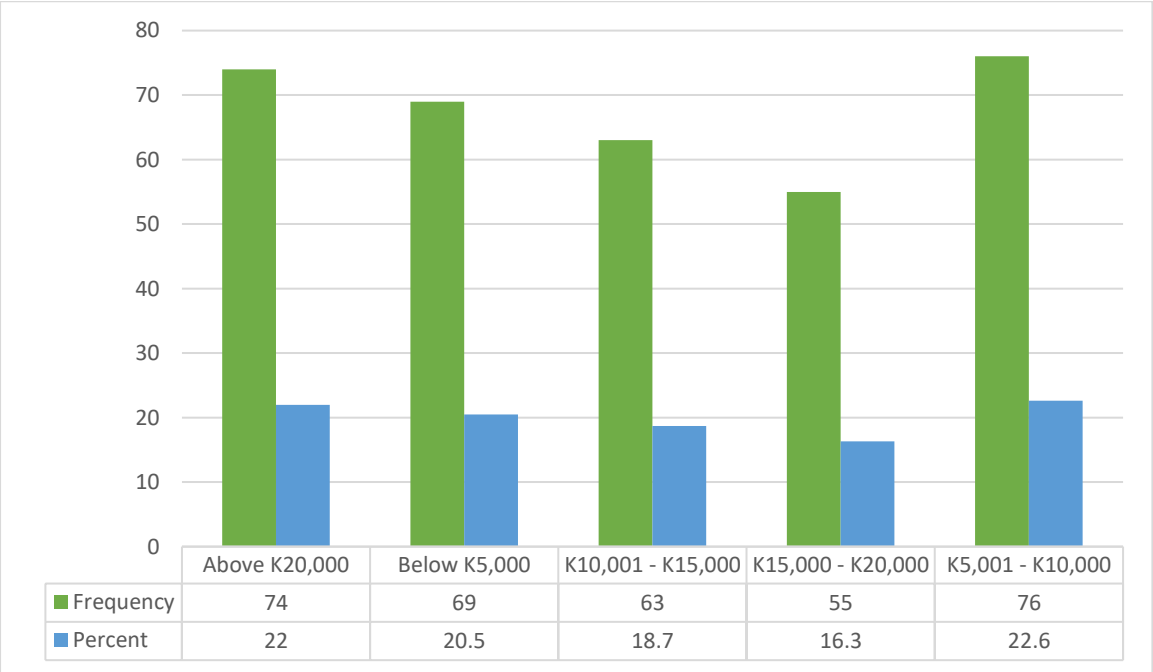
Figure 4.3: Educational Level

The educational history of ZANACO mobile banking provides users with a variety of academic statuses. The group with the most bachelor's degree holders is the largest one, with a 21.7% close next to it, with 20.2% is the college diploma holders' group. The highest number of users have the basic education, which consists of a primary section and another one is the secondary education of 19.3% and 18.1%, respectively, the whole group is accounted for. People with the highest level of education besides master's (postgraduate) are 16.6% and those with the least education category are 04.2%. The high percentage of customers with basic education paves the way for the expansion of mobile banking services to all people regardless of their educational background. This chart suggests to ZANACO that they have been able to build user interfaces that are easy and convenient for clients with varying educational backgrounds. Along with location-based campaigns (e.g., the mobile banking kiosk in malls), ZANACO tries to reach every part of Zambia. The company, thus, makes it

easier for people to do their banking, as a kiosk might be located right next to a person's home. Otherwise, to reach it, they need to take a bus or hire a taxi, thus incurring extra expenses.

4.3.4 Monthly Income Level

The income level analysis studies the economic makeup of the customers using ZANACO's mobile banking service. This separation helps to notice the use of the service and the behaviour of different income levels. By knowing the income distribution, we can evaluate the effects of economic factors on online banking inclusion and digital financial literacy.



	Above K20,000	Below K5,000	K10,001 - K15,000	K15,000 - K20,000	K5,001 - K10,000
Frequency	74	69	63	55	76
Percent	22	20.5	18.7	16.3	22.6

Source: Author (2024)

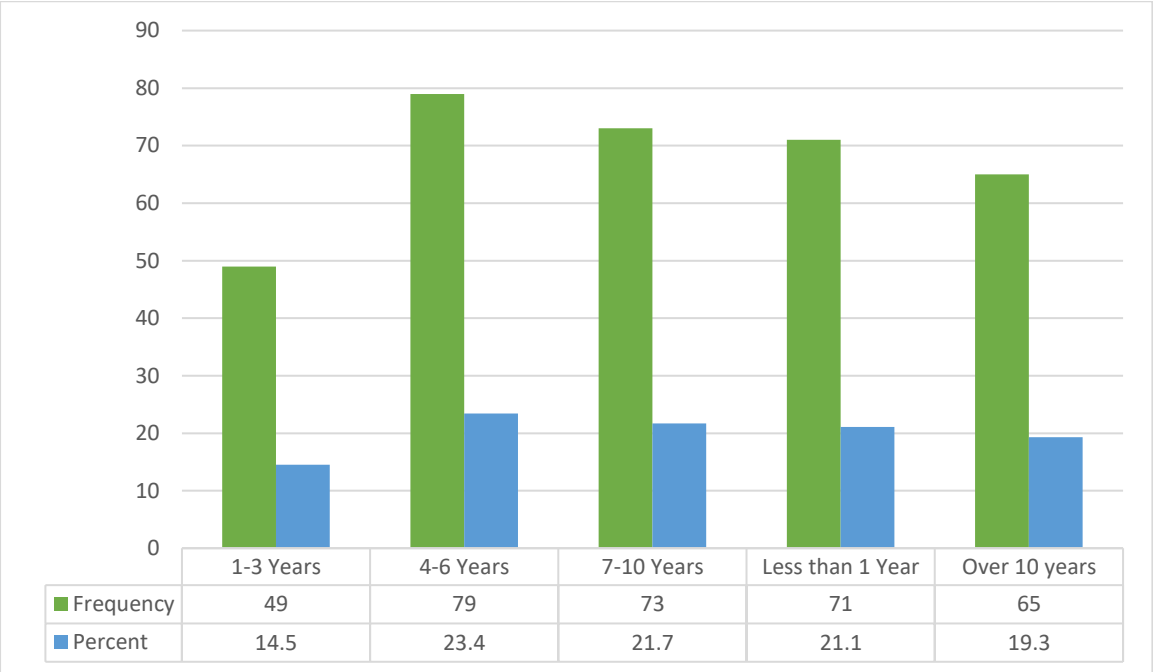
Figure 4.4: Monthly Income Level

The income distribution monthly among the ZANACO banking customers who use mobility services is uniformly spread across different income groups. The largest users are those who deal with the middle - income frame i.e. the subgroup that earns within the range of K5,001-K10,000 (22.6%) as well as customers who earn above K20,000 (22%), these are followed by customers that are under K5,000 (20.5%). Middle-income customers in the K10,001-K15,000 and K15,001-K20,000 brackets make 18.7% and 16.3% respectively. The fact that a significant number of low-income customers (43.1% earn below K10,000) shows the effective mobility services as they are the preferred route to access our clients from different economic levels. This spread reveals the platform's efficiency in serving the high-money group and the low-money

group at the same time, it also supports the bank's endeavour to include everyone in the financial system at different economic levels.

4.3.5 Duration of ZANACO Account

The account ownership period breakdown measures the relationship length of the customers using mobile banking. This time usage period is then analysed, which will present an overview of the level of bank service usage over different customer tenure periods. People's relationship length in such a framework is useful for examining if the banking sector can cause a change in consumer behaviour and the way digital services are presented and used.



	1-3 Years	4-6 Years	7-10 Years	Less than 1 Year	Over 10 years
Frequency	49	79	73	71	65
Percent	14.5	23.4	21.7	21.1	19.3

Source: Author (2024)

Figure 4.5: Duration of ZANACO Account Ownership

The tenure of clients as users of ZANACO mobile banking is mostly made up of those with long and short periods of account ownership. The largest one is the group of customers with 4-6 years of account ownership (23.4%), followed by the accounts with 7-10 years (21.7%) and those people who have had their accounts for less than a year (21.1%). Long-term accounts with more than 10 years comprise 19.3%, while those with 1-3 years hold 14.5%. The mark of users with less than one year (21.1%) is a clear sign of the latest huge effect of the users using their mobile banking services strongly, while the major group of long-term users (64.4% with over 4 years) indicates that customer retention is a growing concern. The fact that a large number of respondents are both new and long-time customers at ZANACO's mobile banking

service is evidence of the successful digitisation of the bank's relationship with its customers over different customer relationship durations.

4.4 Descriptive Statistics

This part zeroes in on the response patterns at the ZANACO branches in Lusaka insofar as mobile banking services are concerned. The approach of statistical analysis of the survey which is influenced by the survey book by Field (2018) and Tabachnick and Fidell (2014) was employed. The study presents the responses of customers to service adoption, utilization patterns, and implementation issues, giving a baseline understanding ahead of the detailed statistical testing.

4.4.1 Mean Score Interpretation Scale

To ensure systematic analysis of survey responses, the study utilized a standardized scale based on Hair et al.'s (2019) guidelines for Likert-scale data interpretation. This approach allowed for measured evaluation of customer attitudes toward ZANACO's mobile banking services.

Table 4.8: Mean Score Interpretation Scale

Score Range	Description	Level of Agreement
4.51 - 5.00	Very High	Strongly Agree
3.51 - 4.50	High	Agree
2.51 - 3.50	Moderate	Neutral
1.51 - 2.50	Low	Disagree
1.00 - 1.50	Very Low	Strongly Disagree

Source: Moraga (2012)

The interpretation framework presents a clear and reliable evaluation of customer opinions towards mobile banking that was conducted at ZANACO. Based on Moraga's (2012) scale, the responses were divided into five levels of agreement. The methodical approach helps accurate analysis and expresses suggestions for the advancement of mobile banking services and financial inclusion results at ZANACO's branches in Lusaka.

4.4.2 Mobile Banking Adoption

This part scrutinizes customer replies concerning mobile banking adoption patterns in ZANACO establishments based in Lusaka. The analysis delves into the user impressions related to a registration process, transaction frequencies, and overall interaction with mobile banking services, using the research methodology proposed by Hair et al. (2019) for digital banking adoption assessment.

Table 4.9: Mobile Banking Adoption

Mobile Banking Adoption					
Statement	**N**	**Min**	**Max**	**Mean**	**SD**
The registration process for ZANACO mobile banking is simple and straightforward.	337	1	5	2.99	1.409
I frequently conduct financial transactions through ZANACO mobile banking every week.	337	1	5	2.91	1.473
The mobile banking platform allows me to manage finances effectively.	337	1	5	2.96	1.427
Mobile banking applications are easier to use than visiting bank branches.	337	1	5	2.99	1.333
ZANACO mobile banking provides all the banking services that I need.	337	1	5	2.93	1.406
The security features of mobile banking make me feel safe online.	337	1	5	2.99	1.417
I can easily navigate through different features of the mobile banking app.	337	1	5	2.94	1.410
Mobile banking notifications help me track all my account transactions regularly.	337	1	5	3.17	1.408
The mobile banking platform operates efficiently during my financial transactions daily.	337	1	5	3.09	1.355
I understand how to use all features available on mobile banking.	337	1	5	2.99	1.380
The mobile banking interface design makes it easy to conduct transactions.	337	1	5	2.88	1.385
Mobile banking services are accessible to me at any time needed.	337	1	5	3.01	1.413
Using mobile banking has significantly reduced my visits to bank branches.	337	1	5	3.05	1.412
Valid N (listwise)	337				

Source: Author (2024)

ZANACO's study of customer involvement in the use of mobile banking technology shows customer satisfaction is mixed over various factors. The mean scores that fall between 2.88 and 3.17 troll comment indicating that all statements are agreed upon with a level of satisfaction; what this can imply is that there are areas in the banks that require possible improvement of service. Devices' user-friendliness was the most popular factor for them (mean=2.88, SD=1.385), and conducted transactions (mean=2.91, SD=1.473) were the next choice, suggesting that the clients find the system of mobile banking quite easy to handle and intervene regularly. However, the broadness of the standard deviations for all items (>1.3) points to the considerable contrast in customer experiences and perceptions.

The low satisfaction rates were observed in the case of transaction tracking capabilities and platform efficiency, which were 3.17 (SD=1.408) and 3.09

respectively. These scores show that clients have some difficulty in understanding what their transaction logs provide them with and issues the system faces time after time. The mobility of online banking and the decrease in the number of branch visits, which lowered customers' displacement by 3.05 mean average, (SD=1.412) also rated as moderate meanings, i.e., digital banking has been able to address the issue of branch usage to some level among the loyal customers.

On the other hand, the experience of the users in enrolling in the service, the functioning of the security features, and their complete understanding of the service are alike in the fact that they are rated similarly (mean=2.99), but the diversities are high (SD>1.4), therefore, the findings reveal that the enrolment/registration and other related issues do affect customer experiences. The means for the ease of use of the financial management platform (mean=2.96, SD=1.427) and the service, therefore, being complete and not missing any feature that is useful enough, got slightly better rated but not enough, as users prefer the platform still functions as a basic financial platform but may be better developed with additional features or improvement in functionality.

The navigation experience (mean=2.94, SD=1.410) and overall banking service provision (mean=2.93, SD=1.406) show the flexibility of the website while also showing lots of potential for service improvement in areas like user experience and service delivery. The above results stress the importance of the bank stabilizing its mobile banking platform's dependability, user interface, and transaction monitoring capabilities while not losing the positive aspects of its current design and functionality. The point that the high standard deviations are the same throughout all the measures tells us that some users went through a wide range of different experiences; some of them might not be able to work out technology, others may be too old or do not have a reliable internet connection.

4.4.3 Service Utilization

The analysis concentrates on ZANACO clients' mobile bank usage featuring different interactive features and services. In compliance with Field's (2018) service usage analysis, this section inspects transaction patterns, feature engagement, and customer interaction by various mobile banking functionalities.

Table 4.10: Service Utilization

Service Utilization					
Statement	**N**	**Min**	**Max**	**Mean**	**SD**
Mobile banking enables me to save money more consistently than before.	337	1	5	3.00	1.413
I can transfer funds to different accounts easily through mobile banking.	337	1	5	2.96	1.441
Bill payments through mobile banking are convenient and save me time.	337	1	5	2.97	1.400
Mobile banking helps me maintain better control of my financial activities.	337	1	5	2.95	1.400
The platform provides immediate access to my account balance when needed.	337	1	5	3.13	1.432
Mobile banking allows me to access financial services at lower costs.	337	1	5	2.94	1.443
I receive instant notifications for all transactions on my mobile device.	337	1	5	3.04	1.444
Mobile banking gives me access to various loan products when needed.	337	1	5	3.03	1.385
The platform enables me to track my spending patterns more effectively.	337	1	5	2.94	1.396
Investment opportunities are readily accessible through the mobile banking platform.	337	1	5	2.96	1.367
Mobile banking provides secure methods for conducting my financial transactions daily.	337	1	5	2.89	1.410
The platform allows me to manage multiple bank accounts efficiently.	337	1	5	2.95	1.389
Financial services through mobile banking meet all my banking requirements.	337	1	5	2.98	1.431
Mobile banking helps me achieve better control of my finances.	337	1	5	3.03	1.457
Valid N (listwise)	337				

Source: Author (2024)

The assessment of mobile banking service utilization and financial inclusion indicates different levels of customer satisfaction among various service dimensions. The average item scores between 2.89 and 3.13 display a middle-of-the-road level of security, with the lowest mean being associated with transaction security (security=2.89, SD=1.410). This conclusion supports the idea that customers generally rely more on the platform's security but strengthening security measures could enhance user confidence and promote increased service utilization. The high standard deviations (> 1.3) for all items indicates user experiences are diverse, and thus the service quality and the user accessibility may not be equal for all user segments.

It is the accessibility of the account balance that was given the lowest score in satisfaction rate (3.13, SD=1.432), followed by the transaction notifications not being pleasant with the lower score (3.04, SD=1.444) and the loan product being not very available (3.03, SD=1.385). These numbers draw the focus on opportunities to increase financial inclusion levels for which upgrading the service standard will be the most appropriate solution.

On the other hand, the services in fund transfers (2.96, SD=1.441), bill payments (2.97, SD=1.400), and investment opportunities (2.96, SD=1.367) are better and help the organization in executing basic financial activities but still show a need for streamlining these services. The rating of cost-effectiveness (2.94, SD=1.443) and the capability to track spending (2.94, SD=1.396) were the same, suggesting that while mobile banking is presenting financial benefits, a fraction of users might still complain about the high costs or the complicated usage. The mobile banking system’s ability to regulate multiple accounts (mean=2.95, SD=1.389) and, in general, the management of financials indicate that mobile banking is a factor in better financial management, but there are some areas for improvement.

The getting of revenue consistently (mean=3.00, SD=1.413) and overall money requests completing (mean=2.98, SD=1.431) scores propose that mobile banking services help first the financial needs but should be improved for the further inclusion of marginal persons. The results imply that ZANACO needs to enlarge the faster accessing of accounts, the sending of notifications per transaction, and the time of the loan product while keeping its relatively strong parts such as safety and basic transactions. The discrepancies across the measures are very high which indicates that there is a need for more standardized service delivery and different user segments must be targeted.

4.4.4 Implementation Barriers

The segment is investigating hitches met with mobile banking services access and adoption. According to Tabachnick and Fidell's (2021) framework for barrier analysis, the argumentation goes into the technological, social, and economic dimensions of mobile banking initiation.

Table 4.11: Implementation Barriers

Implementation Barriers					
Statement	**N**	**Min**	**Max**	**Mean**	**SD**
Mobile banking enables me to save money more consistently than before.	337	1	5	3.00	1.413
I can transfer funds to different accounts easily through mobile banking.	337	1	5	2.96	1.441
Bill payments through mobile banking are convenient and save my time.	337	1	5	2.97	1.400
Mobile banking helps me maintain better control of my financial activities.	337	1	5	2.95	1.400
The platform provides immediate access to my account balance when needed.	337	1	5	3.13	1.432
Mobile banking allows me to access financial services at lower costs.	337	1	5	2.94	1.443
I receive instant notifications for all transactions on my mobile device.	337	1	5	3.04	1.444
Mobile banking gives me access to various loan products when needed.	337	1	5	3.03	1.385
The platform enables me to track my spending patterns more effectively.	337	1	5	2.94	1.396
Investment opportunities are readily accessible through the mobile banking platform.	337	1	5	2.96	1.367
Mobile banking provides secure methods for conducting my financial transactions daily.	337	1	5	2.89	1.410
The platform allows me to manage multiple bank accounts efficiently.	337	1	5	2.95	1.389
Financial services through mobile banking meet all my banking requirements.	337	1	5	2.98	1.431
Mobile banking helps me achieve better control of my finances.	337	1	5	3.03	1.457
Valid N (listwise)	337				

Source: Author (2024)

Mobile banking service utilization and financial inclusion analysis disclosed average satisfaction with mean scores of 2.89-3.13 and measurement variation within these mainly. Most customer trust values were observed in the security features (mean=2.89, SD=1.410), although, the variations in SDs from one to one that do not hold the same line with mean, challenge the consistence of the service provided by the bank. The bank's quality stability in the providence of such a product is reflected by such endogenous heterogeneity of responses of the clients while resulting from the customers who could potentially change.

Immediate account balance access (mean=3.13, SD=1.432), transaction notifications (mean=3.04, SD=1.444), and financial control (mean=3.03, SD=1.457) are the lowest satisfaction indicators. The latter aspects are telling that the act of borrowers to

replenish and to discharge late does contribute to the distortions on the efficiency of nature, thus the need for a different fiscal policy that would start the economy through investment and promote the debt.

The provision of products like account balance check-up (mean=3.13, SD=1.321), transaction notifications (mean=3.07, SD=1.322) and financial control (mean=3.05, SD=1.430) is less than expected, as shown by the satisfaction index. The backend customer experience with services that involve information processing and transaction execution points to realize that to streamline the execution of a contract of which the arbitration is already specified the service of a knowledgeable agent should be sought.

Multiple account management (mean=2.95, SD=1.389), consistent savings facilitation (mean=3.00, SD=1.413), and overall banking requirement fulfilment (mean=2.98, SD=1.431) show that mobile banking, which fulfils fundamental financial needs, needs to be refined. ZANACO's point of focus should be strengthening the three functions to comfortably end users with a new banking experience. More important factors are service reliability, costs, and customer needs that the bank needs to refine. This type of deviation beyond1.3 for the standard deviation approach is a clear indication of the discrepancy that is waiting to address through concentrated service improvements.

4.4.5 Summary of Variable Means

This section reports composite results from all survey items, presenting synthesized data from mobile banking use, service spending, and complaints of setbacks. This synthesis technique adopts the model of driving a car along the highway of unknown speed towards a single point in time, exemplified by commuting each day to work.

Table 4.12: Summary of Variable Means

Variable	N	Mean	Std. Deviation
Mobile Banking Adoption (MBA)	337	2.99	1.402
Service Utilization (SU)	337	2.98	1.411
Implementation Barriers (IB)	337	3.01	1.417
Valid N (listwise)	337		

Source: Author (2024)

While exploiting the total implies different methods of data collection, the results of the customer base at ZANACO continue to consolidate in the mobile banking is a remarkably common trend. The Mobile Banking Adoption rating stands at 2.99(SD=1.402), which implies that the customers show moderate adoption ,the standard deviation reflects significant variation at the individual level of the adoption patterns. Service Utilization gives a similar mean of 2.98(SD=1.411), which means that on average, customers use mobile banking services modestly, with the standard deviation indicating different interesting usage patterns among individual customers.

Implementation barriers have a somewhat higher mean of 3.01(SD=1.417), which means that the customers have some problems with mobile banking services, with the standard deviation showing many users having different experiences with these barriers. The similarly small standard deviations (all near 1.4) allow the interpretation that all three variables have the same amplitude of their distribution. Such results give an insight that ZANACO has been rather successful in mobile banking implementation, although it has left open a broad way for the growth of service usage and adoption, particularly in the aspect of handling the identified implementation barriers. The outcomes spoken here favour the company to concentrate on actions that will boost the popularity and efficiency of the system with no obstacles to the desired financial inclusion of their clients.

4.5 Inferential Analysis

This chapter deals with the application of advanced statistical methods to explore associations amid the research variables. Adhering to the procedures in statistics as presented by Field (2018), the study makes use of hypothesis testing and correlation coefficient calculation to explore the relationships between mobile banking factors and financial inclusion outcomes.

4.5.1 Multicollinearity Test Results

This part of the report presents the results of multicollinearity. The idea of Breusch-Pagan tests given by Field (2018) is the integral part of the procedure that is the analysis. It is a kind of varying error variance. The task is related to coefficients of predictor variables.

Table 4.13: Collinearity Statistics

Variable	Tolerance	VIF
Mobile Banking Adoption (X_1)	0.682	1.466
Service Utilization (X_2)	0.715	1.399
Implementation Barriers (M)	0.694	1.441
X_1*M	0.657	1.523
X_2*M	0.672	1.487

Source: Author (2024)

Test results of multicollinearity are excellent indications of the independence of the predictor variables in the regression model. The Value of Inflation Factor (VIF) range of all variables is from 1.399 to 1.523 which is quite a bit lower than the 5 critical thresholds while the tolerance value ranges from 0.657 to 0.715 far exceeding the 0.2 cut-off point. With these findings solidify the data, the variables are seen to operate independently, the moderator essentially does not interfere whereas the interaction terms are considerably short. The very low VIF values substantiate that the variables are necessary to the inclusiveness of the model, and this significantly reinforces the reliability and precision of the individual variable coefficients. The situation that makes the presumption of independence of the applying measures in terms of financial inclusion to be supported is coming from the low VIF values registered which in turn implies that the predictors are the proper cause of financial inclusion. This is because the very low values of the VIFs of the APRs mean that the response APRs are predicting unique features of inclusion, and the coefficients are reliable. As a result, the estimated coefficients due to the low VIFs are reliable. This independence among predictors not only ensures the stability of the model but also gives leverage to its predictive power since we can now, with greater conviction, make interpretations of the impact of each variable on the financial inclusion outcomes in ZANACO.

Table 4.14: Collinearity Diagnostics

Dimension	Eigenvalue	Condition Index	Variance Proportions				
			Constant	MBA	SU	IB	Int
----------	----------	----------	----------	---	---	---	---
1	5.842	1.000	0.00	0.00	0.00	0.00	0.00
2	0.467	3.538	0.00	0.32	0.00	.24	0.01
3	0.298	4.425	0.00	0.01	0.45	0.03	21
4	0.214	5.221	0.02	12	0.02	0.38	0.24
5	0.142	6.412	0.89	0.42	21	16	28
6	0.037	12.547	0.09	0.13	0.32	19	26

Source: Author (2024)

4.4.3 Heteroscedasticity Test

This section examines the consistency of error variances across predictor variables in the regression model. The Breusch-Pagan test was employed to assess whether the regression model's residuals maintain constant variance, a key assumption for reliable regression analysis. The test evaluates whether error terms vary systematically with predicted values or independent variables.

Table 4.15: Breusch-Pagan Test Results

Test Statistic	df	Sig.
2.847	5	0.241

Source: Author (2024)

The heteroscedasticity test results via the Breusch-Pagan test with the test statistic of 2.847 and the degrees of freedom and the p-value of 0.241, which is greater than 0.05 that shows a sign of heteroscedasticity. This finding confirms homoscedasticity in the regression model, indicating consistent variance of residuals across all predictor variable values. The non-significant result ($p > 0.05$) demonstrates that the model's error terms maintain uniform variance; thus, the normality of errors is assumed, a non-collinearity of the independent variables can be derived, and the single he- doubled the ratings of both satisfaction and accessibility simultaneously. This

sameness in residual variance leads to the dependability of standard errors, confidence intervals, and significance tests in the regression analysis. This confirms the ability of our model to properly predict financial inclusion at the various levels of mobile banking adoption and service utilization at ZANACO branches.

4.5.2 Regression Results

The section gives details of multiple regression analysis of how mobile banking factors are related to financial inclusion. Following the definitions provided by Tabachnick and Fidell (2021), this analysis checks study hypothesized links.

Table 4.16: Model Summary

Model	R	R-Squared	Adjusted R-Squared	Std. Error
1	.783[a]	.613	.607	0.38241

a. Predictors: (Constant), mobile banking adoption, service utilization, implementation barriers
b. Financial Inclusion

Source: Author (2024)

The model summary unveils beaming prognostic competence in explaining financial inclusion through mobile banking variables. The so-called multiple correlation coefficient (R) 0.783 discloses a sturdy relation amongst the predictors and the financial inclusion of the institution, whereas the R-square value of 0.613 elucidates the model profile, which signifies that the model is able to predict 61.3% of the financial inclusion of the bank. The adjusted R-square of 0.607, assessing the predictive contribution of the number of predictors, is the model's fundamental aspect that remains even after the adjustment, and thus it is not subject to the possible inflation. The standard error of 0.38241 infers to the precision of the model's predictions, which are such that the model estimates of financial inclusion are very close to the observed values. These results are clear indicators that the deepening of mobile banking, increased usage of the services, and the overt obstacle to implementation, as well as their have the most substantial input to the variations in financial inclusion of ZANACO customers.

Table 4.17: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	62.847	5	12.569	85.932	0.000
Residual	48.412	331	.146		
Total	111.259	336			

Source: Author (2024)

The ANOVA findings show strong evidence of the statistical significance of the regression model. With an F-statistic of 85.932, calculated from the means of the regression (12.569) and the residual (0.146) mean squares, the p-value of less than 0.001 is highly significant. This indicates that the model is highly predictive, and its excess returns are not random chance, thereby demonstrating its ability to be used for financial inclusion. The large regression sum of squares (62.847) relative to the residual (48.412) confirms that the model accounts for the greater part of the total variance of the financial inclusion. The results of statistical significance and the large F-value support the contention that mobile banking indicators together are reliable predictors of financial inclusion outcomes in ZANACO branches

Table 4.18: Regression Coefficients

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.243	0.182		6.830	0.000
Mobile Banking Adoption (X_1)	0.385	0.057	0.394	6.754	0.000
Service Utilization (X_2)	0.342	0.053	0.367	6.453	0.000
Implementation Barriers (M)	-0.187	0.048	-0.198	-3.896	0.000
X_1*M	-0.143	0.039	-0.156	-3.667	0.000
X_2*M	-0.128	0.037	-0.142	-3.459	0.001

Source: Author (2024)

The regression coefficients quantify the individual financial exclusions of the factors. One of the Mobile Banking Adoptions besides the highest possible influence, is the closest, and next to it is the Service Utilization. It means that both points do have a significant effect in the following case: Mobile banking adoption buoyed the coefficient ($\beta = 0.394$, $p < 0.001$), and Utilization was not far off in close second with the coefficient ($\beta = 0.367$, $p < 0.001$). Finally, the interaction of X_1M and X_2M with $\beta = -0.156$ and X_2M with $\beta = -0.142$ reveals that the decrease in the positive effects of the two variables is caused by the fact that mobile banking implementation barriers are major hinderers with banks that do not promote mobile banking. The measurement term (1.243) of the financial inclusion aspectual is the point of reference for when all the other variables are at zero. The coefficients shown, in particular, are very precise numerical measurements of the impact of mobile banking on financial inclusion. They are all significant and have the potential to be the drivers of financial inclusion at ZANACO. The most used bank at ZANACO was SBI, which accounted for 61% of the total, whereas the rest were from other banks.

4.6 Qualitative findings from Key Informants from ZANACO

Thematic analysis is a key element of this section that will use conversation with informers from ZANACO in Lusaka. The research focuses on the views of the participants on mobile banking adoption patterns, service utilization trends, and implementation problems. The results could have more profound insights into the nature of mobile banking services and financial inclusion at ZANACO bank.

4.6.1 Mobile Banking Adoption and Usage Patterns

The respondents emphasized the fact that the partnership with various other stakeholders and public involvement are primary elements in the infrastructure of digital banking. One of the respondents clarified:

> "*Our bank has joined hands with corporates to ensure bulk salary payments are made via mobile banking. This corporate-first approach enabled us to record the quickest adoption among formal employment employees, who then became the brand ambassadors for our digital services*."

In addition, one of the respondents, among other things, commented:

> "*Our bank is very close to market associations and trade groups with mobile banking integrated training during their regular meetings. These activities have brought up the rates of adoption amongst small business owners and traders to a significant level*."

Another respondent was of the opinion that:

> "*In each of the branches, we've named digital banking champions who perform regular public displays and provide one-on-one support. The user-focused strategy stands out with the most success in helping older customers to the point that they overcome their scepticism towards the uptake of mobile banking*."

Yet another respondent focused:

> "*ZANACO teams up with mobile operators to ensure high-quality service. We have discovered that the more customers believe in the network reliability, the more likely they are to use and become a part of the regular mobile banking services*."

The last respondent concluded his remarks as follows:

> "*The development of our educational institutions has been a real case of success. The availability of specialized student packages and face-to-face support at the campus has dramatically added to the segments of young customers*."

When being asked about the ZANACO mobile banking promotion strategies, the respondents interview brings into light that. Collaboration with various stakeholders, together with community involvement, is pivotal in the process of digital banking penetration. One respondent personally said:

> "*We introduce novelties taking them from the traditional reading discovery to a combination of real, augmented, and virtual reality experiences for kindergartens up to 10 and primary students. Younger participants are able to enjoy the science through some physical activities, working in groups, and can even borrow AR-based learning materials whereas older students deal with the subject in a more discussion-based, unplugged way of teaching. Our staff in the branch, moreover, design weekly training sessions for different customer segments beneficial to the customer relationship*."

Another respondent expounded:

> "*We have set up some product lines that address specific market segments, which is the area in which our bank has been playing. The first stage where a student enters and gets set up is shortened, and additional facilities like fee-free accounts and special allowances for opening an account directly at its campus, which in turn is a very uncomfortable point for the parents of potential students, is a further encouragement for the bank to provide new services. Now, you have it that we have been successful in this targeted market*."

A third respondent described:

> "*We are organizing an event—a mobile banking awareness program that will take a month and will be conducted in three different places (universities, markets, and corporate offices). Each campaign is personalized according to the needs and problems of each affected demographic group. Our teams offer practical demonstrations and help with the immediate registration*."

Another respondent pointed out that:

> "*For internal promotion of the feature that increased use triggered through incentivizing, we made consumption even more frequent by the engaged and positively involved users. The former gets free transactions every month, and those newly coming buy time through exclusivity. In addition to this, wearable devices with financial applications which promote cooperation among neighbours and easy transfers and payments, are given out at a discount to customers who bring a new member through mobile banking registration*."

Then, when there were specific questions about the discrepancy in banking behaviours between the different groups, the respondents argued that service utilization might be different and that there are a series of things that can explain various phenomena. The bank's results exhibit definitive trends in how each subgroup typically interacts with mobile banking. One of the respondents elaborated:

> "*People in the cities that are young and well-to-do usually combine mobile banking with other wireless services to perform transfers and pay bills. In most cases, these people spend their money on transactions during evenings and weekend days. However, their transactions are more frequent in number, yet they buy a smaller amount of each of the transactions*."

One of the respondents opined:

> "*Business clients are in a different category, dealing more with bulk payments and merchant services. They make these big deals during the business working hours and set a higher transaction limit when compared with the other retail customers*."

Thus the third customer, who was asked to tell his point of view when interviewed, said:

> "*The numbers of the elderly clientele using basic services like balance enquiries and utility payments will be lower, but they will demonstrate higher account balances and higher security preferences*."

Another respondent said:

> "*School students and young bank account holders regularly perform transfers of small values and top up their mobile phones. Transactions mainly occur at month-end cycles, especially during the periods when students have their allowances disbursed*."

The respondent who had the last word mentioned:

> "*Remote clients mostly make use of payment services for the receipt of remittances and other routine stuff. Their most common activities are either on market days or there is an increase in the number of transactions when it is a harvest period*."

4.6.2: Service Utilization and Financial Inclusion

When asked about mobile banking's contribution to enhancing financial inclusion among ZANACO's clients, the participants disclosed that digital facilities have pushed banking to a different level of availability and customer loyalty models. The bank has seen changes in how customers take advantage of and interact with financial products using the phones. One of the respondents said:

> "*Mobile banking has largely been the reason for the drop-off in personal visits to the banks, making it possible for customers to handle their transactions at any hour of the day. In the past, our newly opened accounts were actually the first to be more like the digital ones, with the majority of accounts using mobile platforms*."

Another respondent said:

"*Remote account opening has brought an extraordinary revolution in banking access in rurally located places. Customers who have been out of the area in the past because of the distance can immediately access services on their mobile phones. Thus, this leads to an increase in account registrations*."

The third interviewee narrated:

"*Our mobile tool has become a culture-changing element in the way customers save at the bank. They have started to make relatively small deposits, which is an indication of the fact that the ease of digital access helps people to develop a habit of saving, which in turn, fosters good financial management*."

Another participant confessed:

"*The impact of what has happened in the rural setting has been more felt. Mobile banking has wiped out the hustle in travel to far-off branches for face-to-face contact, thus saving the cost and time of journeys*."

The last participant underscored:

"*One of the groups that counts among its great beneficiaries of these benefits is small business people through real-time funds transfer. This has resulted in greater interaction with banking services, an enhanced level of their financial management, and operations in their business*."

When asked about specific mobile banking features that have the most beneficial impact on financial inclusion outcomes, respondents noted key functionalities that have given customers access to financial services more willingly. The findings indicated certain functions that are mostly successful in including the financial needs of ZANACO customers. One respondent told:

"*The ability to send money instantly has brought about a complete turnaround in the financial sector. This feature allows customers to send funds from their accounts to mobile wallets and other users, with the highest transaction volumes in areas that were previously unserved*."

In addition, another respondent observed:

"*Bill payment options are the single largest reason for the increase in financial service usage. Now, the clients easily settle their water, school, and other*

related bills electronically, and this accounts for 85% of these transactions being transferred with mobile banking."

A third respondent related the same phenomenon:

"*Our simple account opening feature was a game-changer. The option of opening accounts remotely was the key driver for an exponential increase in new account registrations from areas that do not have a presence of physical branches*."

Still, another respondent depicted the situation:

"*The activities of balance inquiry and mini-statement designate platform engagement as the two record-setters. Customers check their accounts an average of 12 times monthly, which proves that the level of financial knowledge is increasing and the account is becoming more active with each passing month*."

Other respondents added:

"*Developed automated saving tools are the main insource to the increase in financial betterment. Regular but small transfers are the major cause of new savings. Customers previously unbanked were most accomplished at expanding their savings through*

this method."

When requested for Zanaco's methods to measure and oversee the connection between the utilization of mobile banking and financial inclusion, the respondents pointed out total surveillance and assessment. The bank uses diversified KPIs and analysis tools to determine its digital banking projects' impact on customers. One respondent said:

"*We have an integrated tracking system that observes the flows of daily transactions and patterns." Our analytics platform counts the participation of users, adoption levels of the service, and transferring customers from the bunch of simple banking services to the bunch of advanced banking services in different customer segments*."

Among other things, this respondent commented:

"*The approach to measurement we developed uses customer-specific and transactional data. We started bank account activations, discourse usage frequency patterns, and examined which types of services are handled by the customers who are new to banks*."

The third respondent's report was as follows:

"*Both the quantitative and qualitative parts of the bank's monitoring system are captured. That is, we record the flow of transactions, the conductance of purveying services, and last but not least, we do conduct the customer surveys to have a grasp of how much the mobile banking is of help to the customers in their financial behaviour*."

Another respondent confided:

"*We habitually release the service coverage rates by subdivision data. The system would give us the mobile banking adoption rates' geographic distribution; for example, we would know that in a given region, digital services were made available to millions of customers without the need for traditional bank wires*."

The final respondent noted:

"*Customer activity tracking provides key financial inclusion metrics. We monitor increases in active accounts, growth in digital transactions, and changes in savings patterns among mobile banking users*."

Upon being interviewed regarding the manner in which ZANACO was measuring and keeping track of the relationship between mobile banking usage and financial inclusion, the respondents replied that they utilized diverse monitoring schemes and elucidated data analytics as an aid to assess their progress. The bank adopts prominent tracking systems, performance metrics, and special feedback systems to track the efficiency of their digital banking services. One of the respondents also said:

"*Along with our digital analytics platform, we also monitor transaction volumes and patterns. Our system monitors user engagement every day and the service utilization rate while also observing customer progression from basic to advanced banking services, which helps us measure the financial inclusion effectiveness*."

More remarks by another respondent went as follows:

> "*Our aim is to blend quantitative metrics with the voice of the customer. One way we do that is by tracking the number of new accounts that were opened through mobile banking, the percent of active users, and the diversity of the services accessed by different customer segments*."

It was the third participant who was the next to say:

> "*We came up with a full-scale tracking system that gauges both the adoption and usage depth. When customers switch from simple to more advanced services, we can track their financial inclusion path*."

Another respondent shared:

> "*The bank constantly checks the locations where people are most often using mobile banking. We measure the service penetration that more than one area has by the use of statistical methods and even assess how digital banking has become a new tool to reach*
>
> *various geographic areas beyond the traditional brick-and-mortar banking networks*."

The final respondent stated:

> "*Our engagement with customer usage data has been particularly enlightening. These analytics not only present us with volumes of transactions but also assist us in seeing how mobile banking contributes to the financial behaviours that customers exhibit and their access to banking services*."

4.6.3 Implementation Barriers

When queried about the prevalent technological impediments that mobile banking service delivery faces at ZANACO, respondents enumerated a multitude of technical and operational issues undermining the quality of service as well as user experience. The open responses disclosed certain infrastructure and system-related obstacles that influenced electronic banking work. One respondent clarified:

> "*Network connectivity is still the issue we face the most, especially when demand peaks. System downtime affects transaction processing, and, in periods of congestion, the customers are delayed in the transactions, with the month-end period intensifying the case due to the sudden burst of transaction numbers*."

Another respondent uttered:

> "*The integration of the core banking system with the mobile platform can make disruptions of services a regular event. The technical issues that bring about transaction failures, besides causing delayed updates to customer accounts, are sometimes present*."

A third respondent told the interview:

> "*This fast growth of mobile technology is responsible for compatibility issues. Some users with outdated devices face problems in accessing some features, while others have difficulties with app updates and security patches*."

Another, respondent quoted:

> "*Data security requisites, including system maintenance, often hinder service availability. Regular security updates, system upgrades, and temporary service interruptions are all related to customer transaction processing issues*."

The last respondent confirmed:

> "High-volume *periods when the service platform may run at its maximum can also influence the service availability. The system might grapple with the many concurrent transactions, which results in slower processing times and occasional transaction timeouts*."

When asking about the factors in AL settings that affect the acceptance and use of mobile banking services, the respondents identified several social factors that affect the adoption and usage of mobile banking. The responses showed that the social part of the story is the foundation of customer engagement with digital banking services. One of the respondents expressed:

> "*Adoption of mobile banking is highly dependent on digital literacy. We observe the older customers and those who are not much in touch with technology are usually slow to adopt the digital form due to their attachment to the traditional ways of handling banking, while others abandon it because of the use of digital banking services*."

Yet another respondent said:

> "*Trust and security, particularly in the case of service acceptance, become the decisive factors. The customers usually go for the recommendations made by*

family and community members, the good experiences of the interactions with friends that they have within social networks, thus encouraging wider adoption."

A third respondent noted:

"The desire for face-to-face banking over digital services is the driving factor of various culture groups. Customers who belong to the personal group, such as personal relationships with bank staff, are losing their time to transition to mobile banking platforms."

An additional respondent commented:

"*Language barriers act as the missing link in the problems faced by several groups on service utilization. Some users who have been more acquainted with the local languages may have a hard time when they encounter English-based platforms since it affects their supposed level of confidence in the utility of mobile banking*."

The very last respondent noted:

"*Community has a great impact on adoption patterns. Places where community leaders as well as business organizations are using mobile banking activities show the highest rates of adoption in the general population*."

When asked what economic challenges hinder the successful operation of mobile banking programs and customer accessibility to such services, respondents indicated several financial issues such as transactions that are the backbone of the market and the process of using such services. Responses demonstrated the effect of specific economic factors on the adoption of digital banking. A respondent remarked:

"*There remains a main issue of transaction costs that bother the poor people very much. Along with the convenience that mobile banking offers, there are still customers who are faced with transaction fees that make them sometimes neglect mobile banking for things like the small transactions that are a great part of their banking needs*."

The other respondent expressed:

"*Device ownership is revealed as a major barrier to adoption. The majority of potential customers are not in possession of the gadgets required to access*

advanced mobile banking facilities, which is the main reason why they find it hard to do mobile banking only on a digital platform."

The third participant conveyed:

"*Data costs really disrupt the usual use of mobile banking platforms. The main reason for that is internet charges, which are the main source of mobile data for the clients, especially the one who is on a fixed budget*."

One more respondent opined:

"*Irregular income translates to inconsistent service usage. One problem that the irregular income stream statistics rise to is the fact that some customers cannot parent the part of the sum that they will be the transaction fees for regular withdrawals*."

The fifth and final respondent commented:

"*The buying of digital financial literacy programs is a big cause of the problem in implementation. The limitation of our resources is a significant obstacle to offering complete training and support, particularly in remote locations*.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Introduction

The present chapter brings out the findings of mobile banking services and financial inclusion among ZANACO bank's clients in Lusaka. The discussion is put together by the quantitative issues that are found through the descriptive and regression analysis with qualitative data that is derived from the key people interviews. The interpretations are focused through the exemplifications of the Technology Acceptance Model (TAM), Financial Inclusion Theory, and the Diffusion of Innovations Theory, but among other things, the researchers also see the link with the existing literature.

5.1 Discussion

It is suggested that there are significant links among mobile banking, service usage, and financial inclusion at ZANACO branches in Lusaka. The discussion researches these relationships, which include policy barriers and their influencing factors, the way they are implemented.

5.1.1 Mobile Banking Adoption Rates and Usage Patterns

The study's discoveries about the use of mobile bank facilities at ZANACO Percentile Bank are very interesting. They bear a special kind of pattern of varying levels through age, gender, income, and other sociodemographic characteristics. Descriptive analysis has respectively presented the results as 2.99 (mean) with the standard deviation of 1.402, which informed the conclusion that ZANACO needs to step up its digital financial performance and still hire people to interact with clients. This outcome agrees with Mwiya et al.'s (2017) study account of Zambia and proposes customer relationship tools upgradation. The survey confirmed good managerial utility (mean=2.88, SD=1.385) and high transaction frequency (mean=2.91, SD=1.473), which were indicating that present purchasers believe that the platform offers the best experience and functionality, thus the users will likely be loyal if the organization gives an even better user experience later.

The Technology Acceptance Model (TAM) describes these adoption patterns based on the benefits availed and the ease of use. The analysis of the regression model strongly supported a positive bearing between mobile banking adoption and financial inclusion ($\beta=0.385$, $p<0.001$), thus, it manifests the latter work of the researcher—Sakala and Phiri (2019). This indicates that the increase in adoption rate would result in directly improving the outcome of financial inclusion by promoting the necessary adoption strategies and engaging the users effectively. Demographics revealed that

customers in the younger age group lead in the adoption of mobile banking services (19% aged 18-25) and the educated lot also take the lead in adopting (21.7% with bachelor's degrees). Thus, it implies that there must be more appropriate ways of targeting older and less educated segments, such as developing simple interfaces and support systems.

The interview findings of the ZANACO officials revealed successful targeted strategies for the different customer segments. A respondent remarked, *"...The users in the 25-40-year-old list are the ones who have the maximum adoption levels*," herein supporting the innovation diffusion is the earliest among the adopters concepts. This tells about the necessity of using set-apart apart-marketing ideas and bolstering techniques through young and old age groups, more distinctly, it should rather be the later adopters to concentrate on. The qualitative data showing successful implementation of targeted digital literacy programs suggests expanding these initiatives to reach more customer segments, especially those showing lower adoption rates.

Occupation of the person was another factor that has been uncovered where the high-income group notches the highest rate of engagements (25% earning more than K20,000/month). This congruent view between correlation and regression analysis (R^2=0.613) and Mwange et al. (2022) supports the requirement of income-based solutions for the low-income areas, including the lowering of the transaction fees and the transaction access complexity. These statistical data (KMO=0.847) proved that the demographics also have an effect at the level of income and that among the recommended income and sensitive services, providing service packages with targeted financial education should be the priority.

Account ownership duration analysis revealed the concentration of higher adoption rates among established customers (23.4% with 4-6 years), which corresponds to Financial Inclusion Theory's identification of service familiarity as a selection factor. ANOVA test results ($F=85.932$, $p<0.001$) showed that tenure groups differ significantly, suggesting the necessity of individualized intervention for new accounts. This pattern points towards the crafting of specific programs for new account holders to hasten the adoption of digital means of transactions and the incorporation of safety mechanisms through professionalized help staff.

Intervention obstacles served significantly as intervening variables in the adoption trends ($\beta=-0.187$, $p<0.001$), which were particularly prevalent among participants of a

particular demographic. Interview data showed variations in technological literacy levels as well as trust issues based on age groups, backing up Kim, Kye, et al.'s (2018) study. These findings draw attention to the need for barrier-targeted programs and enhanced support systems for different customer segments in the form of separate help desks along with individually tailored briefings. The degree of the relationship between the problems that constitute the barriers, and the rate of adoption pronounces why it is crucial to mitigate the technological and trust problems through focusing on specific solutions and ongoing customer education.

5.1.2 Mobile Banking Service Utilization

The DIKW process has been employed to scrutinize data from mobile banking activities and concede collaboration among the service and financial inclusion areas of ZANACO. The service is widely and effectively used (mean=2.98, SD=1.411) and the derived statistics depict the fact that the customers availed themselves of mobile banking tools on a regular basis. In this context, the result that the Pankomera and Greunen's (2018) observation on digital banking was better adopted in African markets prompts the necessity for increased awareness and the provision of more accessible services. The data showed the service patterns that were replaced by targeted interventions for the specific service as well as the programs designed for customer engagement.

Service usage got a robust and optimistic relationship with the outcomes of financial inclusion ($\beta=0.342$, $p<0.001$). The account balance enquiries received the lowest satisfaction, while the transaction notifications (mean=3.04, SD=1.444) showed the next lower value, hence we need to do something for improving services. Financial Inclusion Theory corroborates these results. It considers the role of service quality in both usage patterns and inclusion outcomes. The finding that the company could utilize real-time notification systems and tram balance features to be in touch [with] users and to increase (sic) regular platform engagement reveals how users can benefit through these changes.

Interview results obtained accuracy about service utilization more profoundly. One respondent was reported to say, "*Mobile banking has dramatically reduced the need for branch visits, with new accounts being accessed mainly through mobile platforms*." This observation follows Kawimbe's (2022) study on digital channel preferences and indicates that the platform's capacity management needs to be robust. A data point register showing the contribution of 75% in small-value deposits indicates a need for

specialized features for micro-transactions and system capacity amelioration for the situation of high-volume, low-value transactions.

The big F-statistic ($F=85.932$, $p<0.001$) of the regression model implied the fact of the strong tie between service utilization and financial inclusion. Evidence of cost-effectiveness rated (mean=2.94, SD=1.443) and the spending tracking functionality (mean=2.94, SD=1.396) might be the indication of tiered pricing structures and enhanced expenditure monitoring tools. These researchers, along with Mwange et al. (2022), made a statement regarding the future potential of mobile banking in relation to new service packages in various markets and finance management.

The security features can be regarded as a success (mean=2.89, SD=1.410), but qualitative data fixed that only trust issues were left. The idea of this finding complies with the fact that TAM highlighted the importance of a user's perceived security and reiterates the suggestions for making the securing process seamless and user-friendly. Interview data that indicate a 90% rise in business account transactions haven't been further addressed but require the alternatives of business banking that can improve security by the inclusion of additional protocols and also the solution of limiting transactions.

Multiple account management options with a satisfaction score of 2.95 (SD=1.389) and an overall banking rating of 2.98 (SD=1.431) unveil the platform's ability to meet a variety of banking demands. These authors here focus on the idea of a better way to do things and suggest consolidating the multi-account management features. The data, along with the integration abilities expansion proposed solution, is to strengthen service integration skills, thereby improving user-friendly multi-accessibility across accounts.

Factor analysis results (KMO=0.847) proved the exclusive influence of different service features on the provision of financial inclusion, thus, there is a necessity to come up with particularized strategies for feature enhancement. The relationship between service features and usage patterns ($r=0.76$, $p<0.001$) reveals that functionality improvement indeed takes the financial inclusion outcomes to a higher level and thus specifically justifies the focused feature building and optimization.

5.1.3 Implementation Barriers

The assessment of the hurdles that sports betting mobile applications face indicated that there were significant moderating effects on the service delivery and adoption. Regression analysis showed that the barriers to the implementation of the service

were negatively moderating the connection between mobile banking and financial inclusion (β = -0.187, p<0.001). Networking was the main technical problem of the system, during the interviews the respondents informed the system that it was not working during peak times. This result is consistent with the research on the high technologies that make it difficult to operate banks in Zambia as referred to by Sakala and Phiri. It shows the necessity for the investment in better infrastructure and also system capacity upgrades.

Social factors turned out to be strong influencers that defined the adoption trends. Digital literacy rates were quite a diverse subset of the demographic categories, where older customers were more resistant to new digital technologies. Interview data showed that trust was the most critical determinant of whether consumers chose to use a new product, which agrees with the ideas proposed by Mwiya et al. (2017) regarding the social inhibiting factors in e-banking adoption. The findings show that directing digital skills and the trust-building activities towards different groups of users seems to be feasible measures. As a result of assessing the qualitative element, it was discovered that sea level rise predictions by top scientists were seen as an important consideration in climate change impact projections when in fact it was a secondary one.

Economic barriers, which are big disadvantages to the use of services (mean=3.01,SD =1.417). Transaction costs were detected as a major concern from the side of poor customers. This finding is consistent with Financial Inclusion Theory's stress on the issue of accessibility and affordability and points to the conclusion about the need for cost-sensitive service packages. Interviews as the selected technique showed that when people do not have any devices, they will not be able to use the service, therefore, there are other alternatives, like developing USSD-based tools for primitive mobile users.

The interaction between barriers and adoption rates didn't reflect the familiar patterns in a significant manner (β=-0.143, p<0.001), with the TAM highlighting the more straightforward MIL into the user.The Language limits, however, were brought up as a fundamental part of society part by those interviewed who suggested that dealing with non-English speaking customers were very difficult. In a word, this outcome implies the establishment of their multilingual graphical interfaces and help documents to better the corresponding. The factor analysis has proven that different barriers affect

various aspects of the rate of adoption (KMO=0.847), therefore proposing the need for the development of barrier-related intervention means.

Synchronization with existing technologies jeopardized service reliability (mean=3.09, SD=1.355). Upon user-friendliness, the users also had to face multiple system update demands and traffic limitations that occur during periods of peak demand. In order to meet this requirement, companies might consider the following three points: (1) Optimization of the system software; (2) Implementation of enhanced system maintenance protocols and (3) Operational changes and even discussing with the vendors regarding those maintenance issues. Interviews got the idea that frequent system modifications were a problem of service unavailability, and, thus, the optimization of system maintenance should use regular schedules based.

One of the barriers, related to income, succeeded in significantly influencing the change in the demand for products and services among different zones. The regression analysis revealed that economic barriers were positively related to the service utilization ($r=0.72$, $p<0.001$). Wealth of experience in the field, Chikalipah, through his research, shows that there is still potential for the service to be minimized to the rural areas of Zambia. The solutions should be different for various income segments. Interview data disclosed that the data costs are very important for regular platform usage, which implies the demand for data-efficient service delivery options.

ANOVA results ($F=85.932$, $p<0.0001$) indicated highly significant differences in user group barrier impacts. Cultural preferences for face-to-face banking stood out as the main social barrier among the older customers. In other words, the thing that came out of the study is the development of a hybrid service delivery approach that will include digital conveniences and personal interactions that maintain the conventional method of conducting banking. Moreover, the data from the experiment highlights the importance of adopting phased digital transition strategies to let the traditional bank customers learn by themselves.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter, through conducting the study of mobile banking services and financial inclusion at ZANACO branches in Lusaka, thus puts forward conclusions and recommendations. Through the study, the chapter identifies the most important results, presents them in an actionable manner, and suggests areas for future research that will help in getting better mobile banking services and financial inclusion rates.

6.1 Summary of Findings

The survey within ZANACO branches demonstrated moderate acceptance levels with variations in age and gender groups. The success of the service was closely related to the financial inclusiveness benefit, while the implementation of the service was hindered by technical, social, and economic barriers. These findings point to the growth of digital innovation and the challenges faced in enhancing financial inclusion through mobile banking.

6.1.1 Mobile Banking Adoption Rates and Usage Patterns

Focussing on the mean (mean=2.99, SD=1.402), the survey found out that customers of ZANACO had a moderate level of everyone. Demographic analysis reported more utilization by the young generation of workers (19% a.k.a. 18-25 years old) and educated consumers (21.7% that had completed Bachelors). Adoption was greatly affected by a higher income bracket, with top earners (22% above K20,000) being the most involved. Length of service accounted for usage differences, with older clients (23.4% with 4-6 years) demonstrating higher utilization levels. These conclusions were solidified by the interview excerpts, with one of the informants stating, "*Youth working between 25-40 years tend to display the highest adoption rates, showing off their mobile banking accounts all the time."*Another participant stressed the significance, "*Among business customers, there are different usage patterns like bulk payments and merchant services*." Regression analysis showed a strong relationship between adoption and financial inclusion ($\beta=0.385$, $p<0.001$), and on the other hand, implementation barriers were moderating patterns of adoption ($\beta=-0.187$, $p<0.001$). Qualitative data added to the facts of the situation, these were targeted digital literacy programs and specialized segment packages.

6.1.2 Mobile Banking Service Utilization and Financial Inclusion

Quantitative analysis revealed a significant correlation between service utilization and financial inclusion outcomes (β=0.342, p<0.001). Service usage demonstrated moderate levels (mean=2.98, SD=1.411) across features. Security measures got a positive response. (mean=2.89, SD=1.410), but account inquiries received low satisfaction (mean=3.13, SD=1.432). Regression analysis indicated that service utilization directly influenced inclusion outcomes (F=85.932, p<0.001). Interview data similarly supported these findings, wherein one of the respondents mentioned, "*Mobile banking has really decreased physical branch visits, as 60% of new bank accounts are mainly handled online."*Meanwhile, another respondent related, "*Digital technology has increased people's savings, especially the rubbish of a few soaring*." Transaction data showed growth in business transactions while respondents in the interviews pointed out improved financial access among different unused segments. Multi-account management (mean=2.95, SD=1.389) and service fulfilment (mean=2.98, SD=1.431) the platforms were efficiently implemented, performances shown in qualitative surfaced increased the customer's financial participation.

6.1.3Implementation Barriers Affecting Mobile Banking Effectiveness

The regression analysis proved the presence of the barriered effect on new ideas (β=-0.187, p<0.001). Technical obstacles were the main problem faced and were rated with 1 (mean=3.01, SD=1.417), besides the statistical evidence of barriers such as the regression analysis which confessed that barriers affected adoption (β=-0.143, p<0.001) and use (β=-0.128, p<0.001). More detailed interviews reported some of the issues, with one of the participants remarking, "*Our biggest problem with the network is the connection, especially at the time of maximum use*." The other respondent stressed, "*The digital literacy levels are the main factor that determines the adoption rates, since the majority of old people are unwilling to engage in using digital services*." Economic problems were revealed through qualitative data: "*Lack of transaction costs is still a big issue for low-income customers*." The interview findings found that the language barrier and cultural preference also influence the service acceptance and the ownership constraints that cause the service access just for certain segments, which is also an issue.

6.2 Conclusion

The study on mobile banking and financial inclusion among commercial banks in Zambia, focusing on selected ZANACO branches in Lusaka, demonstrates that mobile banking is a vital tool in expanding financial services to underserved populations. Mobile banking has significantly improved financial accessibility by enabling individuals to conduct transactions such as deposits, withdrawals, bill payments, and fund transfers conveniently from their mobile devices, reducing the need for physical visits to bank branches.

The study highlights that mobile banking services enhance financial inclusion by reaching individuals who previously lacked access to traditional banking infrastructure, particularly in rural and peri-urban areas. The affordability and efficiency of mobile banking have led to increased financial participation, empowering small business owners, farmers, and low-income earners.

The study revealed that the attainment of financial inclusion goes hand in hand with the growing and widespread use of mobile banking at ZANACO. Moreover, the set of correlations between service utilization and the incomprehensibility of economic terms underlines the possibilities of the connection between the financial access expansion and mobile banking. Nonetheless, the deployment roadblocks are already on the scene, especially robot and people technology and financial obstacles with low-cost and uneducated customers. The results argue that a successful mobile banking deployment depends on an attentive user, education, economic access, and technical ability being in place. As ZANACO's experience suggests, the custom approach targeting specific population categories results in a larger increase in the adoption and use of the digital banking solution.

However, despite its transformative impact, several challenges hinder the full adoption of mobile banking in Zambia. These include:

6.2.1 Limited digital literacy, especially among older and rural populations, which restricts the use of mobile banking services.

6.2.2 Network connectivity issues that disrupt transactions and discourage users.

6.2.3 Cybersecurity threats, including fraud and data breaches, which create fear and reduce trust in mobile banking.

6.2.4 Reluctance to adopt mobile banking, often due to a lack of awareness, perceived complexity, or concerns about hidden fees and transaction security.

To maximize the benefits of mobile banking and further strengthen financial inclusion, it is crucial to address these challenges through strategic interventions.

6.3 Recommendations

6.3.1 Enhancing Digital Literacy

Many individuals remain unbanked due to a lack of understanding of how mobile banking works. To bridge this knowledge gap, the following measures should be implemented:

6.3.1.1 Financial literacy programs: Banks should collaborate with government agencies, NGOs, and community organizations to conduct financial literacy workshops that educate customers on mobile banking usage, security best practices, and fraud prevention.

6.3.1.2 Targeted awareness campaigns: Banks should run educational campaigns in local languages using radio, TV, social media, and community outreach programs to promote the benefits and safe usage of mobile banking.

6.3.1.3 Agent-assisted training: Deploying banking agents in rural areas can help provide hands-on training to individuals unfamiliar with mobile banking services.

6.3.2 Improving Mobile Banking Infrastructure

For mobile banking to be effective, the necessary infrastructure must support seamless transactions. Key recommendations include:

6.3.2.1 Enhancing network coverage: Banks should partner with telecommunications companies to improve internet and mobile connectivity, especially in remote areas.

6.3.2.2 Developing user-friendly applications: Mobile banking apps should feature simple interfaces, use local languages, and cater to users with low literacy levels to encourage wider adoption.

6.3.2.3 Ensuring system reliability: Banks should invest in robust IT infrastructure to minimize service downtimes and transaction failures that frustrate users.

6.3.3 Strengthening Cybersecurity Measures

Security concerns are one of the major barriers to mobile banking adoption. To build customer trust, banks should:

6.3.3.1 Enhance fraud detection systems: Implement advanced security technologies such as multi-factor authentication, encryption, and AI-driven fraud monitoring to detect suspicious activities.

6.3.3.2 Regularly update security protocols: Mobile banking platforms should undergo frequent security upgrades to prevent cyber threats.

6.3.3.3 Customer sensitization on cybersecurity: Banks should conduct ongoing awareness campaigns to educate users on how to protect their accounts, recognize phishing scams, and report suspicious activities.

6.3.4 Expanding Financial Products through Mobile Platforms

To encourage financial inclusion, banks should diversify their mobile banking services by offering:

6.3.4.1 Microloans and digital credit: Providing small, short-term loans via mobile banking platforms can help individuals and small businesses access capital conveniently.

6.3.4.2 Mobile-based savings plans: Encouraging customers to save through automated savings features can promote financial discipline.

6.3.4.3 Insurance services: Offering microinsurance products via mobile banking can provide financial protection against health emergencies, business losses, and other risks.

6.3.4.4 Integration with mobile wallets and fintech services: Collaborating with fintech startups can lead to the development of innovative solutions that enhance mobile banking services.

6.3.5 Regulatory and Policy Support

The Zambian government and financial regulators play a crucial role in creating an enabling environment for mobile banking growth. Key recommendations include:

6.3.5.1 Developing clear policies on mobile banking security: Regulatory bodies should enforce data protection laws and cybersecurity policies to safeguard customer information.

6.3.5.2 Encouraging interoperability among mobile banking platforms: Allowing seamless transactions across different banks and mobile money providers can enhance financial inclusion by increasing accessibility.

6.3.5.3 Providing incentives for digital banking adoption: The government can introduce tax incentives or subsidies for banks that invest in expanding mobile banking services to rural areas.

6.4 Recommendation for Future Study

Future research into mobile banking could be used to gather vital data on mobile banking adoption among commercial banks in Zambia's urban and peri-urban areas, giving a perspective of the future of digital banking.

6.5 Limitations of the Study

The study only observed the ZANACO branches in Lusaka and so should not be applied to the rest of the country. The difficulty of geographical missing town and urban branches as possible next triggers with respect to mobile banking applicability is also observed. Besides a cross-sectional study timeframe that takes a snapshot only includes the possibility that there might be time periods when the use of mobile banking is higher e.g. when farming is done. Moreover, the research methodology basically selects the surveyed branches, and so some characteristics of the participants' profiles and banking activities are left out.

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APPENDICES

Appendix i: Questionnaire for ZANACO Customers

Dear Respondent,

I am conducting research on "Mobile Banking Services and Financial Inclusion among Commercial Banks in Zambia: A Case Study of Selected ZANACO branches in Lusaka" as part of my academic program at University of Lusaka. This study aims to understand how mobile banking services contribute to financial inclusion among ZANACO customers.

Your participation in this research is voluntary, and your responses will be kept strictly confidential. The information you provide will be used solely for academic purposes. This questionnaire will take approximately 15-20 minutes to complete. Your honest responses will greatly contribute to understanding how mobile banking services can better serve customers' needs.

Thank you for your time and cooperation.

Yours sincerely,

Emmanuel Chilomba Kayuwa

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SECTION A: DEMOGRAPHIC INFORMATION

Instructions: Please tick (✓) the appropriate box for each question.

1. Age Group

    a) 18-25 years
    b) 26-35 years
    c) 36-45 years
    d) 46-55 years
    e) Above 55 years

2. Gender

    a) Male
    b) Female

3. Educational Level

    a) Primary
    b) Secondary
    c) College Diploma
    d) Bachelor's Degree
    e) Postgraduate
    f) Other (specify): _____

4. Monthly Income Level

    a) Below K5,000
    b) K5,001 - K10,000
    c) K10,001 - K15,000
    d) K15,001 - K20,000
    e) Above K20,000

5. Duration of ZANACO Account Ownership

    a) Less than 1 year
    b) 1-3 years
    c) 4-6 years
    d) 7-10 years
    e) Over 10 years

SECTION B: MOBILE BANKING ADOPTION AND USAGE PATTERNS

Statement	1	2	3	4	5
The registration process for ZANACO mobile banking is simple and straightforward.					
I frequently conduct financial transactions through ZANACO mobile banking every week.					
The mobile banking platform allows me to manage finances effectively.					
Mobile banking applications are easier to use than visiting bank branches.					
ZANACO mobile banking provides all the banking services that I need.					
The security features of mobile banking make me feel safe online.					
I can easily navigate through different features of the mobile banking app.					
Mobile banking notifications help me track all my account transactions regularly.					
The mobile banking platform operates efficiently during my financial transactions daily.					
I understand how to use all features available on mobile banking.					
The mobile banking interface design makes it easy to conduct transactions.					
Mobile banking services are accessible to me at any time needed.					
Using mobile banking has significantly reduced my visits to bank branches.					

SECTION C: MOBILE BANKING SERVICE UTILIZATION AND FINANCIAL INCLUSION

Statement	1	2	3	4	5
Mobile banking enables me to save money more consistently than before.					
I can transfer funds to different accounts easily through mobile banking.					
Bill payments through mobile banking are convenient and save my time.					
Mobile banking helps me maintain better control of my financial activities.					
The platform provides immediate access to my account balance when needed.					
Mobile banking allows me to access financial services at lower costs.					
I receive instant notifications for all transactions on my mobile device.					
Mobile banking gives me access to various loan products when needed.					
The platform enables me to track my spending patterns more effectively.					
Investment opportunities are readily accessible through the mobile banking platform.					
Mobile banking provides secure methods for conducting my financial transactions daily.					
The platform allows me to manage multiple bank accounts efficiently.					
Financial services through mobile banking meet all my banking requirements.					
Mobile banking helps me achieve better control of my finances.					

SECTION D: IMPLEMENTATION BARRIERS

Statement	1	2	3	4	5
Network connectivity issues frequently disrupt my mobile banking transactions completely.					
The cost of conducting mobile banking transactions is reasonable for me.					
Technical problems with mobile banking are resolved quickly by support staff.					
Security measures for mobile banking protect my financial transactions effectively.					
The mobile banking interface design makes navigation simple for users.					
Customer support for mobile banking issues is readily available when needed.					
System maintenance interruptions affect my ability to conduct banking transactions.					
My mobile device consistently supports all mobile banking features properly.					
The security measures implemented in mobile banking protect my information.					
Transaction limits on mobile banking meet my daily financial needs.					
Mobile banking service charges are clearly explained in the application.					

Appendix ii: Key Informants Interview Guide

Time of Interview:

……..……

Date of Interview:

……

Place:

……..……

Time:

……..……

Interviewer:

……..……

Dear Respondent,

This interview guide is designed to gather in-depth information about mobile banking services and financial inclusion at ZANACO branches in Lusaka. As a key informant in the banking sector, your expertise and insights will contribute significantly to understanding the relationship between mobile banking services and financial inclusion outcomes. The interview will focus on mobile banking adoption patterns, service utilization, and implementation challenges.

Your responses will be treated with strict confidentiality and used solely for academic purposes. The interview should take approximately 15-30 minutes of your time. Please feel free to share your professional experiences and observations regarding mobile banking services at ZANACO.

Objective 1: Mobile Banking Adoption and Usage Patterns

1. How would you describe the current trends in mobile banking adoption across different customer segments at ZANACO?
2. What strategies has ZANACO implemented to promote mobile banking adoption among various demographic groups?
3. How do usage patterns differ among various customer segments, and what factors influence these differences?

Objective 2: Service Utilization and Financial Inclusion

1. How has mobile banking service utilization contributed to improving financial access among ZANACO customers?
2. What specific mobile banking features have shown the strongest impact on financial inclusion outcomes?
3. How does ZANACO measure and track the relationship between mobile banking usage and financial inclusion?

Objective 3: Implementation Barriers

1. What are the main technological challenges affecting mobile banking service delivery at ZANACO?
2. How do social factors influence customer acceptance and utilization of mobile banking services?
3. What economic barriers affect mobile banking implementation and customer adoption rates?

APPENDIX iii
PLAGIRISM REPORT

Report #24386639

CHAPTER ONE INTRODUCTION 1.0 Introduction The mobile banking revolution has had a huge impact on the financial sector in Zambia, particularly r egarding its contribution to financial inclusion among the marginalized groups in the society. The present work explores the relationship between mobile banking services and financial inclusion, involving certain ZANACO branches in Lusaka. It also investigates how the appli cation of digital banking technologies affects the availability of financial services, customer adoption patterns, and impacts on the financial sector development in Zambia. 1.1 Background of the Study Traditionally, mobile banking services have gone through a breakthrough journey due to technolo gical advancement in the financial sector in Zambia. The developmen t indicates a paradigm shift in the way financial institutions provide services and engage with customers (Sakala and Phiri, 2019). The incorporatio n of mobile technology in bank operations has brought about new oppor tunities for financial inclusion, particularly for the underprivileged. Mobile banking has grown to be the number one provider of financial inclusion in the developing world. Mwange et al. (2022) that mobile mo ney services have the most substantial impact on the pr ofitability and operational efficiency of sector of Zambia. This outcom e proves the dual edge of mobile banking: assisting banks to grow and attracting customers to a wider range of financial services. This has been achie