

**An Assessment of the Factors Affecting the Adoption of ATM Cash Deposit Services. A  
Case Study of ABSA Bank Zambia, Lusaka.**

**BY**

**Mwila Katuta**

**A Dissertation submitted to the University of Zambia in partial fulfilment of the  
requirements for the award of the Degree of Master of Business Administration General**

**THE UNIVERSITY OF ZAMBIA**

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## DECLARATION

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

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## APPROVAL

This Dissertation by **Mwila Katuta** is approved as a partial fulfilment of the requirements for the award of the Degree of Master of Business Administration in General.

Examiner 1	Signature	Date
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Examiner 2	Signature	Date
.....	.....	.....

Examiner 3	Signature	Date
.....	.....	.....

Chairperson Board of Examiners	Signature	Date
.....	.....	.....

Supervisor	Signature	Date
.....	.....	.....

## **ABSTRACT**

Commercial banks' investments in information technology (IT) have helped to streamline operations, boost competitiveness, and expand the number and quality of services offered. The Automated Teller Machine (ATM) is arguably the most ground-breaking electronic innovation in the world. ATMs are the most extensively used electronic delivery method for banks in Zambia. Cost savings, customer happiness, and competitiveness are the reasons to install and expand the existing ATM network. Despite the availability of good ATM facilities for depositing money, long queues at banks persist during working hours, customers depositing money at the counter to bank tellers. Therefore, the study aimed at assessing the factors affecting the adoption of ATM Cash Deposit Services. The objectives of the study were to determine the effect of perceived usefulness, perceived ease of use, the effect of facilitating conditions and the effect of social influence on consumer's intentions to adopt ATM cash deposit services. To achieve the objectives, the study conducted a survey of 397 ABSA bank customers. The study used a mixed method research and employed descriptive and causal research designs. Descriptive statistics, logistic regression and Fisher exact test were used for data analysis. From the results, the study found that; lack of knowledge, lack of awareness, easiness of ATMs to use, Trust for ATMs, security and safety of ATMs, and ATM errors, are significant factors that affect customers' use of ATMs for depositing money. In addition, the study found that having friends who use the ATMs to deposit money had a statistically significant effect on using the ATM for depositing money. Age and Gender were also found to have significant effect on using ATMs for depositing money. The results were statistically significant at 0.05 P-value. The study therefore recommended that; Banks should provide adequate knowledge to customers on how to use ATMs for depositing money; ensure and guarantee the safety of customers when depositing money; regularly changing the quality of notes; and provide adequate information to customers on the safety and reliability of ATMs when depositing money.

**Key Words: ATMs Use, Cash Deposit, Perceived Usefulness, Ease of Use, Social Factors**

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Above all, I give Glory to GOD ALMIGHTY for His Blessings.

## **DEDICATION**

To my dearest family, including my loving husband Innocent Shampande and my beautiful daughters; Esther, Luyando, Nomai and Bukata, whose endless love, understanding and sacrifices have been the cornerstone of my academic pursuit. I pray that may my accomplishments inspire you to reach greater heights, no matter what challenges life presents.

I dedicate this work to you, my beloved family as a token of gratitude for your constant presence, inspiration, and unwavering faith in me.

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## **LIST OF ACRONYMS**

ATM:	Automated Teller Machines
COVID-19:	Coronavirus Disease of 2019
CSF:	Critical Success Factors
ICT:	Information Communication and Technology
IT:	information technology
POS:	Point of Sale
SEM:	Structural Equation Modeling
SPSS:	Statistical Package for Social Sciences
SST:	Self-service technology
TAM:	Technology Acceptance Model
TCT:	Transactions Cost Theory
UTAUT:	Unified Theory of Acceptance and Use of Technology

# **CHAPTER 1**

## **INTRODUCTION**

### **1.0 Introduction**

This chapter outlines the study's background on Information Communication and Technology (ICT), Automated Teller Machines (ATM), history of e-banking and its adoption in Zambia, then moves on to the problem statement. The general purpose, as well as the specific objective and questions of the study are then stated in the chapter. This chapter also covers the significance of the study, its scope, and the definitions of key words utilized in the research.

### **1.1 Background to the Study**

Commercial banks' investments in information technology (IT) have helped to streamline operations, boost competitiveness, and expand the number and quality of services offered in recent decades (Khurshid et al, 2014). The Automated Teller Machine (ATM) is arguably the most ground-breaking electronic innovation in the world, and Zambia is no exception. In Zambia, ATMs are now operated by the majority of banks. In this country, the ATM has been the most successful delivery method for consumer/retail banking (Nuwagaba and Brighton 2014). ATMs, according to Mwiya et al. (2017), are the most extensively used electronic delivery method for banks in Zambia. With the introduction of the ATM, the efficiency of bank service delivery has improved. By being networked, ATMs have been able to establish the "one-branch" mentality in this country, allowing customers to complete their banking without having to go to their branch (Nuwagaba and Brighton 2014).

The development of technology has had a tremendous impact on the spread of electronic banking. Banking is no longer constrained by time or territory thanks to technological advancements. Consumers around the world have relatively easy access to their accounts, which is available 24 hours a day, seven days a week. As a result, both banks and their clients profit from e-banking (Karjaluo et al., 2012). ATMs are one of the most common delivery methods in e banking since they allow clients to bank Anywhere, anytime Customers have found that using an ATM is a very convenient way to conduct business. The banking industry has been changed by technological advancements. Banks have embraced this mode with zeal. The benefits of utilizing an ATM have given rise to new dimensions of service quality, and banks are providing clients with additional options.

Khurshid et al (2014) indicated cost savings, customer happiness and competitiveness as reasons to install and expand the existing ATM network. According to Karjaluo et al., (2012), the ATM facility speed up transactions and save time for clients. An ATM typically handles 100 to 250 transactions daily. Available data on various e-payment channels reveal that the ATM is the most patronized (Asiegbu et al., 2015).

Although cash deposits taking ATMs is an existing technology worldwide in the banking industry. The use of ATMs for cash deposit is somewhat a new service in many countries (Mbogoro & Masele, 2021). The adoption of the service has been low among the commercial banks in Tanzania ((Mbogoro & Masele, 2021). Frank (2014) indicated cash deposit through the use of automated teller machines (ATMs) as the biggest concern among commercial banks in Tanzania. In Nigeria, it appears that customers' perception of the technology differ which affects the decision to use or not to use ATMs. It is observed that banks still have long queues of customers transacting with tellers within banking halls. Also, the patronage of the ATM is not well defined as it is observed that sometimes long queues are seen at ATM posts while at other, there are few or more customers waiting to use the ATM (Asiegbu et al., 2015). Thole and Hamooya (2019) conducted a study in Zambia. Nonuse of the ATM was attributed to many factors including lack of ATM cards, security of the location of the ATM and technical issues such as insufficient funds in the ATM, especially on weekends.

## **1.2 Problem Statement**

The adoption of Automated Teller Machine (ATM) cash deposit services represents a critical facet of banking technology intended to streamline customer transactions and enhance service accessibility. Despite the proliferation of ATMs designed to offer both withdrawal and deposit functions, there is a significant underutilization of these services for cash deposits, particularly in urban areas like Lusaka. Recent statistics underscore this challenge, showing that the volume of transactions processed through ATMs has reduced further by 10.3% to ZMW 33,012,608. This decline raises serious concerns about the effectiveness and user-friendliness of ATMs, indicating a potential misalignment with customer needs and expectations. The reluctance or inability to use ATMs for deposits could be attributed to several factors, including but not limited to user interface complexity, machine reliability issues, security concerns, or a lack of awareness about the deposit functionality. This underutilization not only impacts customer convenience but also limits the efficiency gains that banks can achieve through digital transactions. Hence, this study seeks to investigate the underlying causes of the low adoption

rate of ATM cash deposit services in Lusaka, aiming to identify actionable insights that could improve their usage rates, thereby enhancing banking efficiency and customer satisfaction in Zambia's rapidly evolving financial sector. This revised statement of the problem integrates the specific evidence of declining transaction volumes while highlighting the broader implications for banking efficiency and customer service.

### **1.3 General Objective**

The main objective of this study was to establish the factors that affect the adoption of ATM cash deposit services by ABSA Bank Zambia consumers based in Lusaka, and to find measures for increased use.

#### **1.3.1 Specific Objective**

1. To establish the effect of perceived usefulness on consumers' intentions to adopt ATM cash deposit.
2. To ascertain the effect of perceived ease of use on consumer's intentions to adopt ATM cash deposit.
3. To determine the effect of facilitating conditions on consumer's intentions to adopt ATM cash deposit.
4. To examine the effect of social factors on consumer's intentions to adopt ATM cash deposit.

#### **1.4 Research Questions**

1. What is the effect of perceived usefulness on consumers' intentions to adopt ATM cash deposit?
2. What is the impact of customers' perception on ease of use of ATM cash deposit have on their intention to adopt it?
3. What is the effect of perceived facilitating conditions on consumers' intentions to adopt ATM cash deposit?
4. What impact do social factors have on consumers' intentions to utilize the ATM cash deposits service?

## **1.5 Significance of the Study**

The findings of the study have the ability to help bank executives and policymakers understand the elements that drive ATM cash deposit adoption in order to make strategic decisions. Good bank policies will boost client confidence, allowing more transactions to take place, resulting in increased economic growth. It is also envisaged that the data acquired on the factors that drive ATM cash deposit adoption would be shared with the relevant financial institutions.

Researchers will also profit from the findings of the study, which might be utilized to build a larger nationwide study. In addition, the study will be useful to other ICT service providers in the region in terms of implementing E-Banking effectively.

Finally, the findings of the study will be added to the body of knowledge in the fields of banking and finance and information and communication technologies (ICTs), which academicians can utilize to improve education.

Overall, the study on factors affecting ATM adoption is significant for both clients and banks. It helps banks enhance their services, reduce costs, and remain competitive, while offering customers the convenience, satisfaction, and time-saving benefits they seek in their banking experiences.

## **1.6 Scope of the Study**

This study confined itself to the Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) as the two underpinning theories for the study. From the TAM model, the researcher adopted perceived usefulness and perceived ease of use. The study focused on assessing the effect of facilitating conditions, Perceived usefulness, Easy of use and social factors on the use of ATMs by bank customers. These were the independent variables for the study, and 'Use of ATMs' was the dependent variable. Additionally, the study was restricted to ABSA bank Zambia customers that are based in Lusaka.

## **1.7 The Organisation of the Report**

Chapter One: Presents the topic's introduction and background. Under this chapter, the problem statement, aims and hypotheses, study scope, study importance, and report organization have

all been provided. Chapter Two: Along with the literature gap analysis of this study, the discussion will present empirical data pertinent to the subject. This chapter includes a presentation of the theoretical and conceptual foundation will be adopted in this study. Chapter Three: It shows the research strategy, research plan, and methods employed. It will focus on issues related to research methodology; where research design, methods of data collection and analytical techniques will be presented. Chapter Four: The research study's findings are presented. The conclusions will be based on the research objectives that will be adopted in this study. For the readers' ease of understanding, the analysis will be displayed in tables and figures. It will also provide a summary of the available data. It will show how the empirical review offered in chapter two contrasts with the research study findings. Chapter Five: It emphasize an overview of the conclusions, implications of the findings, offer recommendations to the bank, and recommendations for future research studies.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

Aspects related to factors affecting ATM adoption usage are described in the literature review. This chapter focuses on the theoretical foundation for the research. The chapter then offers the conceptual framework that was chosen for this investigation based on the theories. After that, the conceptual model's variables are explained. The chapter also includes empirical research on this subject from all over the world. Finally, the chapter highlights the research gap that was identified in this study.

#### **2.1 Electronic Banking**

Electronic banking (E-banking) is the means by which the services and products of banks are made available to their customers through the use of internet and electronic digital devices irrespective of the location of the customer and time of carrying out the transaction (Ovia, 2002). E-banking is the provision of banking products and services to banks and customers through the utilization of various electronic delivery channels. The e-banking concept has been in existence for some time although in form of Automated Tellers Machines (ATMs) and telephone banking and that in most recent times due to advancement in IT, it has been carried out through the use of the internet.

The internet offers around the clock services irrespective of the customer's location, which gives customers the opportunity with ease and convenience to perform banking transactions such as cash withdrawals, money transfer, payments for goods and services, payment of utility bills, and so on, at any hour of the day Chavan (2013). Elisha (2010) also defines that e-banking is the automated delivery of banking services and products to customers through the use of electronic interactive communication channels. This definition implies that e-banking platforms or channels enable bank customers to perform banking transactions such as funds transfer, cash withdrawals, payment for goods and services, etc through the use of interactive electronic media that allow the customers to carry out transactions by themselves without relying on bank Tellers.

Information and communication technologies are playing a very important role in the advancements in banking. In fact, information and communication technologies (ICT) are enabling banks to make radical changes to the way they operate. According to Consoli (2013), the historical paradigm of IT provides useful insights that opened the way to radical changes in the banking industry such as the reconfiguration of its organizational structure and the diversification of the product line. Banks are essentially intermediaries, which create added value by storing, manipulating and transferring purchasing power between different parties. To achieve this, banks rely on ICT to perform most functions, from book keeping to information storage and from enabling cash withdrawals to communicating with customers (Shah et al., 2019). In developed countries at least, this high degree of reliance on ICT means that banks spend a large chunk of their budget on acquiring as well as maintaining these technologies. Information Communication Technology provides a very limited return unless accompanied by changes in organizational structures and business processes. These changes also need to be followed by a diversification of service offerings, with many banks introducing new product lines such as credit cards, stock brokerage and investment management services. Thus, ICT has mostly enhanced productivity, as well as increased the choice for customers both in terms of variety of services available and in terms of the ways in which they are able to conduct their financial activities (Shah et al., 2019).

### **2.1.1 Self-service Delivery and Technology**

Self-service technology (SSTs) include ATMs. Since the introduction of automated teller machines (ATMs) several decades ago, SST has become widely used in a variety of industries, including airline, banking, travel, hotel, financial, and retailing (Bitner, 2013). Apart from its wide variety of applications, such as automated hotel checkout, flight ticket checkouts at kiosks or online, internet shopping, paying bills online, banking via ATMs, and many more, SST has provided tremendous economic benefit (Falaye et al., 2013).

An ATM is a computerized communications device that allows bank customers to access their accounts to withdraw cash and conduct other financial operations without having to physically visit a bank branch. ATM/debit cards that normally allow cash withdrawals can be used for a variety of transactions at a bank's ATM (Falaye et al., 2013). Consumers can use the ATM, like any other SST, to become service coproducers rather than just service receivers (Laukkanen, 2016). ATMs not only modify the role and behavior of consumers, but they also

shift a typical service structure that totally divides production and consumption. As a result, it is critical for management and academics to research ATM adoption in various industries and research contexts in order to identify which factors influence the technology's acceptance.

E-banking has received a considerable level of attention in research and practice resulting in an extensive quest to understand the reasons behind an individual's decision to adopt or resist the service. In this section, the researcher will highlight a number of studies that have been conducted around the globe in understanding factors that affect the adoption of ATM usage. The section will be split in two sections, global and African perspective.

## **2.2 Global Perspective**

Khan (2010) examined automated teller machine service quality and customer satisfaction in Pakistani banks. The main purpose of the study was to identify the significant dimensions that shape customer's perception of ATM service quality and the effect of ATM service quality on customers' ATM adoption in Pakistani banking sector. Convenience sampling technique was used to collect data from sample of 500 customers who hold ATM cards from multinational and national banks. A questionnaire was used to collect the data. The questionnaires were administered by courier, e-mail, and personal delivery. The study presented and examined a model to explain how convenience, efficient operation, security and privacy, reliability, and responsiveness positively and significantly affect customers' perception of ATM service quality, and how the ATM service quality influences the ATM adoption. Regression results indicated that convenience, efficient operation, security and privacy, reliability and responsiveness are significant dimensions of ATM service quality and that ATM service quality positively and significantly contributes toward ATM adoption.

The study of Shah et al. (2015) on critical success factors (CSF) in E-Banking conducted in United Kingdom, aims to determine the critical issues related to financial sector organizations when they establish businesses online. The survey method was used by researchers which target the financial sector in the UK. The study indicates that Understanding the CSFs in E-banking is important for senior management of banking related organizations, because it would potentially help them improve their strategic planning process. The analysis of the study indicates two major types of statistical analyses were conducted, descriptive statistical analyses and factor analysis. In descriptive analyses, the factors (or variables) were ranked in order of

their mean score, the highest score being the most important and so on. The top six factors in order of importance were: user-friendly website, systems security, support from top management, fast responsive customer service, promotion of electronic commerce within organization, and all time availability of services and rapid delivery of services. Factor analysis, which was done to group together, related variables to uncover factors (in terms of factor analyses), found the following factors to be critical for the success in E-banking. Issues related to organizational flexibility and speed of services delivery were found to be at the top of the importance list. Issues related to organizational flexibility and speed of services delivery were found to be at the top of the importance list. Business processes and systems integration and enhanced customer services were next in the list of importance.

The study conducted by Daghfous and Toufaily (2017) on the success and critical factors in adoption of E-banking by Lebanese banks. The research was conducted on the factors that can lead to success the adoption of E-banking and the other factors that can constitute as barrier to its adoption, it focusses on the organizational, structural and strategic factors which can accelerate or, on the contrary, slow the adoption of this electronic mode of distribution and communication by the banks, through analyzing the case of the Lebanese market. In order to test the validity of the theoretical framework, structured survey was used, interview questionnaire that was given to E-banking managers or to information technology managers of all the banks on the official list of institutions operating on the Lebanese market, with a total of 57 banks, 31 of them operate internationally and 26 are strictly local were used to gather data. The results of their study shows that the organizational variables (bank size, functional divisions, technical staff, technical infrastructure, perceived risks, decision makers` international experience and mastery of innovation) are variables which exert significant impact on the adoption of E-banking, among the structural characteristics, the result revealed that internal technological environment of the bank is a very important factor in determining the adoption of Ebanking, also the result shows that banks which are developing in the international scale are more likely to adopt E-banking innovations. Finally, the result of the study indicated that extent of penetration of Ebanking in the growth phase of an emerging market has an important correlation with the improvement of commercial performance.

The other descriptive case study analysis conducted by Khalfan et al (2016) on 'Factors influencing the adoption of internet banking in Oman, aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-

commerce applications in the Omani Banking sector. Data, used in their study were collected using semi structured interviews and survey questionnaire as well as reviewing some bank documents. The results of their study provide a Pragmatic picture about the adoption of E-Commerce applications in the core financial sector domain of Oman. One of the main findings is that security and data confidentiality issues have been a major barrier. The banking sector was reluctant to use E-commerce applications as they felt that transactions conducted electronically were open to hackers and viruses, which are beyond their control. Lack of top management support is the other inhibiting factor in the adoption of electronic commerce applications as per their finding.

Darch and Caltabiano (2014) explored the relationship between demographic, user situational, attitudinal variables and ATM use in an Australian sample of older adults. Volunteers aged 60 years and over conducting their own banking filled in a self-administered questionnaire which assessed respondents' banking practices, attitudes towards ATMs, and demographics. Mann–Whitney U-tests and chisquared tests were computed to explore group differences, and a logistic regression analysis was conducted to assess the predictive value of identified variables. These adults were volunteers aged 60 years and above, who conducted their own banking transactions. The sample comprised 139 respondents of which 44.6% were ATM users and 55.4% were non-users. Group differences were found in regard to age, education, user situational and attitudinal variables. From the logistic regression, technology, perceived control and perceived user comfort were found to have an independent significant effect on ATM usage. The results suggest that while age, education, attitudes and user-situational variables are related to ATM use, only technology experience, perceived user comfort and control are determinants of ATM use among this population.

Bansal and Singh (2018) identify the various determinants of service quality of ATM and to analyze the impact of various determinants of service quality of ATM on customer satisfaction in Indian banking sector. It also analyzes the impact of demographic factors on the relationship of ATM service quality and customer satisfaction. In this study factor analysis was used to measure the item and to test the reliability and validity. A structured questionnaire was used to collect the primary data through survey to ascertain the satisfaction levels and the total participants were 385. To identify the prominent determinants, regression, ANOVA and T- test were applied and to analyze the customer satisfaction, frequency analysis was used. The various determinants of service quality of ATMs have a positive impact on the customer

satisfaction. The demographic factors such as educational background and age of the customers moderate the relationship of customer satisfaction and service quality of ATMs. The various determinants of service quality identified in this study may help the banking sector to shift the customers from traditional banking to self-service technologies like ATM and banking sector may improve its profitability position by reducing its operational cost through ATM as the transactional cost in ATM is less in comparison to transactions performed in bank branches by bank staff.

Sawalqa (2012) conducted a study on customers' financial needs satisfaction and self-service technology banking, the case of automatic teller machines (ATMs) in Jordan. This study was conducted to achieve two main objectives. Firstly, it assesses the effect of low cost services, security and privacy and ease of use on customers' financial needs satisfaction of Automatic Teller Machines (ATMs). The study also assessed if there is a difference in customers' financial needs satisfaction due to gender, age or academic qualification. Based on survey responses from 132 users, the results indicated that only privacy and security contributes significantly to the customers' financial needs satisfaction. The results also revealed that the demographic characteristics of users make no difference in the financial needs satisfaction of ATMs users. An important implication of this study is that the results of it brought with them the need for Jordanian banks to put more emphasis on the different aspects of privacy and security, to decrease or remove the cost of ATMs usage and to introduce a good training to ATMs users.

### **2.3 African Perspective**

Hamooya and Thole (2019) argued in his study that ATMs are a category of information and communication technologies that have increasingly become vital to improving bank service delivery in developing countries. This study was therefore conducted as an investigation into the usage of ATMs for improved service delivery with focus on Cavmont Bank Kalingalinga Branch. The objectives of the study were to assess customers' level of knowledge on the usage of the ATMs; to evaluate the user friendliness of the ATM at Cavmont Bank Kalingalinga Branch; and to establish the challenges of having one ATM at Cavmont Bank Kalingalinga Branch. It was a case study employing both qualitative and quantitative methods of data collection and analysis. The study established that all the respondents were well aware of the ATM at the Cavmont Bank Kalingalinga Branch. However, only 62% of the respondents had used the ATM. The majority (51%) of the respondents considered the ATM at Cavmont

Kalingalinga Branch to be user friendly. Of the 62% of people using the ATM, 53% indicated that having few ATMs in Kalingalinga will result in customer dissatisfaction which may compel them to seek better services from other banks. Nonuse of the ATM was attributed to many factors including lack of ATM cards, security of the location of the ATM and technical issues such as insufficient funds in the ATM, especially on weekends. The study established that installation of ATMs has improved service delivery and recommends that, in order to maximize the benefits of this information technology, clients should be properly orientated to the operations of the technology.

Molla (2017), conducted a study on ATM adoption. The aim of the paper was to examine the factors affecting customers' intention to adopt ATM banking system in Ethiopian banking industry, the case of Addis Ababa city. The study applied mixed research design and collect data through the use of primary and secondary data sources. The primary data source involved through the use of questionnaire and interview. The secondary data was obtained from reviewing journals and literature relevant to the subject matter of this research. The target population for the study was among the head office customers of seventeen commercial banks located in Addis Ababa. The study was undertaken on 385 customers and used the simple and multiple regressions to see the relationship between the dependent variable intention to adopt ATM banking system and the independent variables, Attitude, Subjective Norm, Perceived Behavioral Control, Perceived Ease of Use and Perceived Usefulness.

The paper also presented preferred banking system among customers' and why they choose between tellers based banking and ATM-banking, customers' preferences for ATM-banking across different educational levels and gender and ATM-banking services used by customers too. The paper showed the existing legal frameworks on ATM-banking. From the respondents', receiving banking products or services through tellers based channel is more preferred than ATM-banking channel. ATM-banking usage with educational level and gender, better results were recorded for ATM-banking with educational level of bachelor degree and above and for male participants'. ATM-banking usage is lower among participants with lower educational level. Also the paper resulted the multipurpose ATM banking service is used for limited functions of withdrawing money and requesting balance statement. Based on the above findings the paper provides recommendation such as: undertaking awareness creation tasks to improve customers' knowledge on utilizing ATM-banking packages. And also making ATM

always functional, secure and privacy keeper as well as frequent monitoring and maintenance is a must. Too the banks should improve ATM features to attract customers.

The study conducted by Yitbarek and Zeleke (2013) on Analyzing the factors influencing customers' intention to the adoption of e-banking service channels in Bahir Dar city with integration of Technology Acceptance Model, Theory of Planned Behaviour and previous empirical studies identified seven factors; attitude, subjective norm, perceived behavioural control, perceived usefulness, perceived ease of use and perceived risk affecting users' behavioural intention to use E-banking. Results also revealed that the construct perceived behavioural control is the dominant factor followed by perceived ease of use and attitudes in predicting an individual's intention to accept e-banking service channels. The regression result also shows that attitude is jointly predicted by perceived behavioural control, perceived usefulness, perceived ease of use, and perceived risk while perceived ease of use contributed more for the variation in attitude.

The research work done by Edemivwaye (2015) with topic of "Electronic Banking and Customer Satisfaction in the Nigerian Banking Sector" with purpose of finding factors that influence customers' adoption and utilization of e-banking products, and to determine if e-banking has improved customer satisfaction come out with different results. The researcher found some of the factors that influence customers' adoption and utilization of e-banking services in Nigeria. These factors are; availability, accessibility, fees/charges, speed of transaction, security, privacy, and IT knowledge/awareness. He found that there was a significant difference in customers' preferences for e-banking services. He also found that there was no significant difference in customers' preferences for e-banking services across different educational qualifications. He also found that there was no significant difference in customers' preferences for internet banking, telephone/mobile banking, and POS terminal across gender; while preferences for ATM and smart card showed a statistical significant difference across gender. The researcher also found that there was a significant relationship between utilization of e-banking channels and customer satisfaction in Nigeria. Additionally, he got utilization of e-banking products has significantly improved customers' satisfaction in Nigeria.

According to Adeniran (2014), among the development in the banking services delivery is the introduction of Automated Tellers Machine (ATM) that intends to decongest the banking halls

as customers now can go to any nearest ATM outfit to consummate their banking transactions such as: cash withdrawal, cash deposit, bill payments, and transfer of fund between accounts. The research made use of a cross-sectional survey design that questioned respondents on ATM services. The findings revealed that, the impact of ATM services in terms of their perceived ease of use, transaction cost and service security is positive and significant. However, the result also indicates that the impact of ATM services in terms of availability of money is positive but insignificant. In a similar study Idris, (2014), is of the view that Automated Tellers Machine (ATM) among others was one of the services introduced by banks with the objective of providing customers quick access to their finances, as well to reduce cost of such access.

The study by Nimako and Gyamfi (2013) examines factors that most importantly affect customer adoption of ATMs in Ghanaian banking industry. The study was a cross-sectional survey that employed the use self-administered questionnaire to collect data from a sample of 256 respondents through personal contact. Through confirmatory factor analysis approach using AMOS 18.0, the findings indicate that, two items of perceived ease of use, four items of perceived benefits and two items of perceived barriers critically affect the adoption of ATMs in the research context. Given that the research model is theoretically grounded and indicates high goodness-of-fit indices, factor loadings, validity and reliability, it offers practitioners the basis for developing effective customer driven strategies for delivering ATM services. In spite of the limitations of the study, the findings also confirm and further our understanding of factors affecting consumer adoption of technology in electronic banking.

Mwastika (2016) revealed that Automated teller machine banking has become a significant channel for banking products and services behind branch banking in Malawi and banks continue to invest in new and efficient technologies that can handle more functions that include cash depositing to attract more customers and achieve customer satisfaction with the banks. 353 respondents participated in this study to assess the impact of Automated teller machine banking performance on customer satisfaction with banks. The study adopted a performance only approach to measuring customer satisfaction. A self-administered questionnaire containing multi-dimension and multi attribute Likert measurement scales was used where respondents rated the performance only and their satisfaction with Automated teller machine banking and satisfaction with their respective banks. Using SPSS, regression analysis of satisfaction with Automated teller machine banking performance and satisfaction with the bank was conducted and the results indicate that performance of automated teller machine banking

has 40 percent predictive capability of customer satisfaction with the bank. The study further found that despite influencing customer satisfaction with the bank, Automated teller machine banking has no capability to attract customers to switch banks. Therefore, banks could improve their customer satisfaction ratings through improvements in Automated teller machine banking services but where the banks wish to attract customers from rivals, alternative marketing strategies should be sought.

Muze (2017) explain recent history in Ethiopian banking industry that competing banks share common facilities to give better service for customers via interbank Switch with the view to improve customer services and maximize their profit. Hence, the objective of the study was to assess the level of usage of ATM banking services and customer's satisfaction in aftermath of EthSwitch. To achieve the research objective descriptive survey design was employed; both primary and secondary data were used. The primary data was collected from respondents using questioners consists of five point likert scale and some close ended. Convenience sampling technique was used to collect the data; designed questionnaires were distributed to 400 respondents having two and above years ATM usage experience. From total of 400 distributed questionnaires 385 were returned from the customer of the selected switched member banks. The collected data are analyzed using descriptive analysis like tables, percentages, mean and standard deviation. After interoperability of all banks ATMs the research finding shows that majority of the customers' are dissatisfied with the ATM services due to various challenges associated with ATM such as; customers' accounts being debited without dispensing, Shortage of money in ATM's, ATM malfunction due to connectivity problems and power, delayed response time in case of errors transaction, availability of limited services, high service charge for ATM service, Machine complexity , and ATMs late to updated balances are major problems causing dissatisfaction. Even there are problems; surprisingly the customers do prefer to get the service through the shared ATMs, because it saves time and convenience. Finally, the study recommends banks to improve patronage of the ATM services and challenges encountered by customers when using the ATM should be addressed to minimize the dissatisfaction and give customers enough confidence in the use of the ATM and will encourage them to recommend it to non-users.

## 2.4 Empirical Review

Molla (2017) conducted a study on ATM banking adoption. The aim of this paper is to examine the factors affecting customers' intention to adopt ATM banking system in Ethiopian banking industry, the case of Addis Ababa city. The study applied mixed research design and collect data through the use of primary and secondary data sources. The primary data source involved through the use of questionnaire and interview. The secondary data was obtained from reviewing journals and literature relevant to the subject matter of this research. The target population for the study was among the head office customers of seventeen commercial banks located in Addis Ababa. The study was undertaken on 385 customers and used the simple and multiple regressions to see the relationship between the dependent variable intention to adopt ATM banking system and the independent variables, Attitude, Subjective Norm, Perceived Behavioral Control, Perceived Ease of Use and Perceived Usefulness. Thus the paper had come up with result of subjective norm and attitude has significant impact on intention to adopt ATM-banking. The predictive capacity of subjective norm is much higher. The paper also presented preferred banking system among customers' and why they choose between tellers based banking and ATM-banking, customers' preferences for ATM-banking across different educational levels and gender and ATM-banking services used by customers too.

The study explored the factors affecting the customer attitudes towards ATM usage in the Anuradhapura district. The main objective of this paper is studying that what the factors are affecting to the customer attitudes towards ATM usage in Anuradhapura District, Sri Lanka and to identify the relationship between customer attitudes and ATM usage level. The authors validate a measurement model for customer attitudes towards ATM usage based on different models and theories. All of the concepts, ideas, opinions and theories that related to the five factors, namely; security, ease of use, trust, perceived usefulness and risk have been chosen. These variables have been tested to explore the relationship between customer attitudes and ATM usage. Around 384 respondents participated in this study through a structured questionnaire. The data was analyzed using the Statistical Package for Social Sciences (SPSS 16.0 version.). The key findings revealed that demographic factors including age, Gender, education level and occupation have a relationship with the ATM usage. Five factors were found as influence the customer attitudes towards ATM usage. And also there is a positive relationship with attitudes towards ATM usage and Actual ATM Usage level. This finding is

paramount useful among the banks as it will assist with their various strategic resource allocation decisions on their ATM banking solutions.

The paper by Wijesekara, and Kandambi (2015) showed the existing legal frameworks on ATM-banking. From the respondents', receiving banking products or services through tellers based channel is more preferred than ATM-banking channel. ATM-banking usage with educational level and gender, better results were recorded for ATM-banking with educational level of bachelor degree and above and for male participants'. ATM-banking usage is lower among participants' with lower educational level. Also the paper resulted the multipurpose ATM banking service is used for limited functions of withdrawing money and requesting balance statement. Based on the above findings the paper provides recommendation such as: undertaken awareness creation tasks to improve customers' knowledge on utilizing ATM-banking packages. And also making ATM always functional, secure and privacy keeper as well as frequent monitoring and maintenance is a must. Too the banks should improve ATM features to attract customers.

Mwatsika (2016) asserts that all banks in Malawi deploy Automated teller machines (ATMs) making ATM banking the second most popular access channel to banking products/services. Therefore, to continue achieving competitive advantage through ATM banking, bank managers need to know the key features of ATM banking whose performance greatly influence customers' satisfaction. 353 ATM card users rated the performance of ATM banking in 25 service quality attributes and further rated their perceived satisfaction with ATM banking. The regression analyses of the performance of the 25 ATM banking attributes and customers' satisfaction first reveal that the 25 attributes adopted from empirical studies provide a perfect model for predicting customer satisfaction. Secondly, reliability and responsiveness are the key service quality dimensions of ATM banking and thirdly, the analyses revealed 12 key attributes that influence customers' satisfaction with ATM banking and these are: ATM fees charged, ATMs not out of order, cleanliness of ATMs and ATM stations, accuracy of ATM transactions, ease of access to ATMs, readable slips, convenient location, employee accessibility to solve ATM problems, privacy at ATM stations, employee speed in solving ATM issues, ease of application process for ATM cards and cash availability in ATMs.

The study by Mbogoro (2020) was set to assess factors hindering commercial banks to adopt automatic cash deposit service using ATMs. Using the Transactions Cost Theory (TCT) and

Technological, Organizational and Environmental (TOE) framework, three constructs were extracted and hypothesized as predictors for adoption of ATMs cash deposits. A multiple regression analysis was conducted to data gathered from 105 respondents selected from seven commercial banks. It was found that all hypothesized variables (perceived cyber security; perceived costs of operations; and, facilitating conditions) significantly influenced adoption of ATMs cash deposits. For ATMs cash deposit services to be up taken, diffuse and get trusted as a reliable banking service by commercial banks in Tanzania, the responsible entities must work hard to ensure that security systems are reliable. Facilitating conditions are required to improve enabling/supporting security system infrastructures. The commercial banks need to market the service in order to attract more customers' cash deposits and cover the operating costs.

Itani (2021) examined the factors affecting customer satisfaction from ATM service variables namely reasonability of fee charged, frequency of problem faced, choice of ATM, usage of services and post purchase behavior in the context of Nepalese commercial banks. The study is based on the primary source of data. The main source of primary data is the structured questionnaire and the study was carried out in Kathmandu valley by distributing 220 questionnaires through field survey, out of which, 184 respondents' opinions were used as major source of data on factors affecting customer satisfaction from ATM services in Nepalese commercial banks. Five commercial banks were selected out of 27 private sector commercial banks. Different statistical tools like mean, standard deviation, correlation analysis and regression analysis are used for the primary data analysis.

The study revealed that the factors from ATM services greatly influence customer satisfaction level in Nepalese commercial banks. The result indicates that the reasonability of fee charged as the most important factor affecting customer satisfaction level from ATM service in Nepalese commercial banks while cash withdrawal is the most useful ATM services provided by the Nepalese commercial banks. Likewise, machine out of order the most frequently faced problem in Nepalese commercial banks. The study further showed that ATM users found limit on daily withdrawal as inconveniency while using ATM and also found that it was costly to withdraw from another bank ATM outlets in Nepalese commercial banks. The study also reveals that the reasonability of fee charged, choice of ATM, usage of services and post purchase behavior factors from ATM services have positive and significant relationship with customer satisfaction in Nepalese commercial banks. It indicated that higher the reasonability of fee charged, choice of ATM, usage of services and post purchase behavior, higher would be

the customer satisfaction. However, frequencies of problems faced have negative and significant relationship with customer satisfaction which indicates that higher the frequency of problem faced, lower would be the customer satisfaction. The study also concludes that most of the respondents believe ATM service as the necessity of modern banking and overall ATM services provided by commercial bank is satisfactory.

Alalwan et al, (2014) study aimed at proposing and validating a conceptual model demonstrating the main factors predicting customers' intention and adoption of Internet banking in Jordan. The conceptual framework was theorised by integrating factors from the Extended Unified Theory of Acceptance and Use of Technology (UTAUT2): Performance expectancy (PE), facilitating conditions (FC), and hedonic motivation (HM) along with perceived risk (PR) and trust (TR) were extracted from Internet banking literature. A self-administrative questionnaire has been employed to collect data from a convenience sample of three hundred and forty-eight Jordanian banking customers (69.6% response rate). By facilitating AMOS 21, a structural equation modelling (SEM) has been conducted to validate the proposed model and examine the research hypotheses. Statistical results approved that all predictors of behavioural intention (BI) have been recognised as significant. TR was the most influential factor predicting BI.

Muhammad & Khalil (2012), study examined the factors that determine the internet banking adoption amongst International Islamic University Malaysia (IIUM) and its causal effects using a theoretical model based on the Technology Acceptance Model (TAM). The research model consists of four exogenous latent constructs, namely, awareness, perceived usefulness, trust and perceived risk and endogenous latent construct namely Internet banking adoption. Data relating to constructs were collected from 200 university students in (IIUM) and subjected to Structural Equation Modeling (SEM) analysis. Confirmatory Factor Analysis (CFA) was performed to examine the reliability, construct validity, convergent validity and goodness of fit of structural models and measurement models. The hypothesized structural model fits the data well. The results showed that the significant factor that leads to the adoption of internet banking is perceived usefulness but awareness, trust and risk have negative significant towards the use of internet banking.

## **2.5 Theoretical Framework**

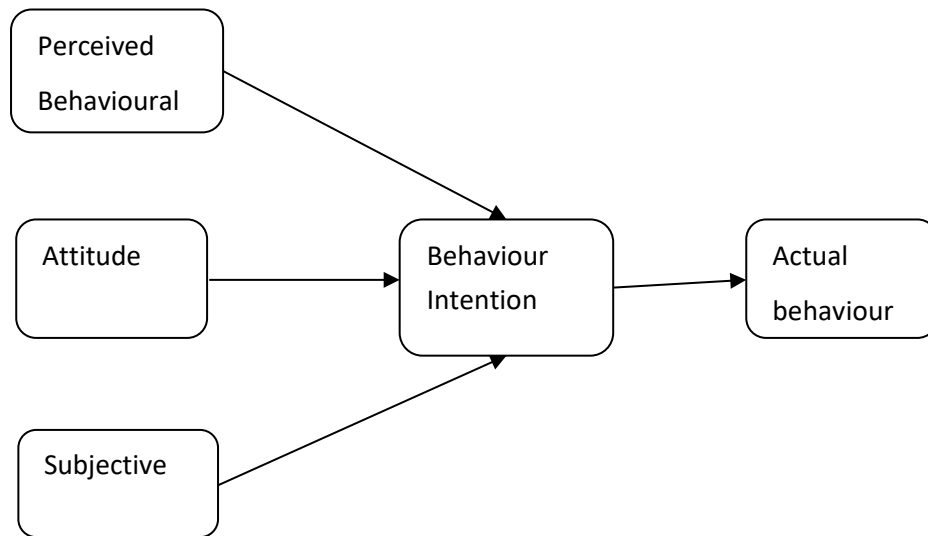
### **2.5.1 Theory of Planned Behaviour (TPB)**

Early study focused on the Theory of Reason Action (TRA), as defined by Fishbein and Ajzen (1975). The TRA is based on the most important behavioral factors as well as a subjective criterion. Both factors are thought to have a beneficial impact on people's behavioral intentions, which in turn helps them start doing things.

The positive or negative assessment of one's own outcomes of a certain action is referred to as one's attitude. The term relates to how positively or negatively the success of the action is viewed. The subjective standard refers to a person's perception of specific acts, which is influenced by the opinions of large groups of people such as parents, spouses, coworkers, and instructors.

The term "social intention" describes how a person's social standing influences their behaviors and is believed to be a quick predictor of conduct. In any instance, the fundamental principle of TRA is that the act of action is dependent on volitional control over one's decision (Fishbein & Ajzen, 1975). As a consequence, one's conduct is influenced by their preparation. A person's choice of behavior is determined by their own preferences. As a consequence, individuals lose their composure when faced with unexpected factors such a lack of external assets, opportunity, or energy. TRA, on the other hand, is insufficient to define and anticipate future behavior. As a result, Ajzen (1985) modifies TRA and offers the theory of planned behavior (TPB), as seen in the diagram below.

**Figure 2.1: Theory of Planned Behaviour**



Source (Ajzen, 1985:14)

Ajzen (1985) proposed TPB to describe and predict human norms of behavior. To account for people's wild effects, TPB adds apparent social influence to the TRA theoretical framework. TPB is made up of three components: behavior management, attitude, and subjective expectations. As a consequence, behavior intention is influenced by apparent conduct control, attitude, and subjective expectations. As a consequence, social purpose determines actual behavior. A person's seeming ease or difficulty in doing a certain task is one example of apparent behavior control.

### **Criticisms of the TPB**

The TPB has been chastised on a few instances. To begin with, despite the TPB's foresight, a large part of the potentially good improvement remains unaccounted for (Morris, Venkatesh, & Ackerman, 2015). Conner et al. (2000) suggest two methods for resolving this unexplained fluctuation: adding new factors and moderator factors, and adding additional factors and moderator factors.

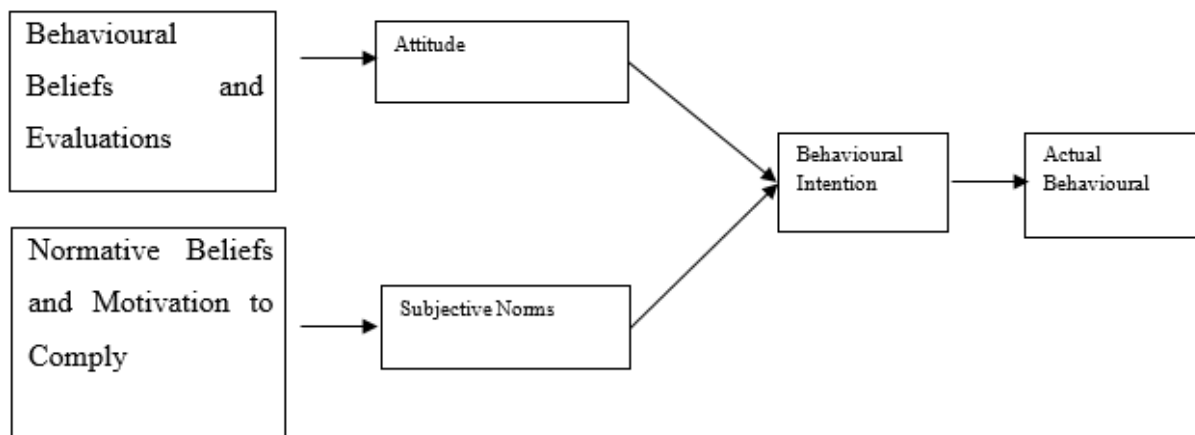
Second, since the TPB predicts transitory contiguity between purpose and action, precise situational congruence is still required for successful prediction (Yousafzai et al, 2010). The model is more adapted to forecasting current behavior rather than projecting future behavior when purpose and behavior are estimated at the same time. According to Ajzen & Fishbein

(1980), future conduct is very difficult to anticipate owing to the temporal gap between purpose and action, which may include unforeseen occurrences or factors that break the link between intention and behavior.

### 2.5.2 Theory of Reasoned Action

The Theory of Reasoned Action (TRA) was developed to assist individuals better comprehend how their emotions, motivations, and actions are linked (Fishbein, 1967). These are the most widely accepted theories for explaining human behavior (Poon 2008). Individual attitudes toward innovation and subjective expectations assist to explain why people want to utilize it in the first place. The TRA is made up of variables that predict behavior based on attitudes toward behavior, societal effect (Subjective Norms), and motivation variables (See Figure 3.3).

Figure 2.2: Theory of Reasoned Action



Source: (Fishbein & Ajzen, 1975)

The TRA proposes that an individual's intention to participate in a certain behaviour hypothesizes their behaviour. The individual's attitude toward the result of the behaviour, as well as the views of the person's social surroundings, which is referred to as the subjective norm, are both factors that influence intention (Fishbein and Ajzen, 1975: MD-Nor et al., 2018).

An individual's assessment or overall emotion about a target behaviour is reflected in their attitude toward the behaviour. It expresses a person's good or negative feelings about engaging in the behaviour. The individual's attitude toward behaviour is a combination of their ideas about the behaviour and their assessment of the consequence of that behaviour. According to

the idea, when a person has a favorable opinion of a behavior, he or she will be more likely to engage in it (Ajzen, 1991; MD-Nor et al., 2018).

The perceived social pressure on a person to do or not execute a particular behaviour is referred to as the subjective norm. The subjective norm is made up of a person's normative views about a certain behaviour and his or her motivation to conform to relevant others (Fishbein and Ajzen, 1975). Normative beliefs refer to how one perceives the influence of opinion among reference groups, whereas motivation to comply refers to how much one wants to follow the wishes of the referent other (Mathieson, 1991). According to the theory, people frequently act based on their perceptions of what others think they should do, and their intention to adopt a behaviour can be influenced by people close to them (MD-Nor et al., 2018).

### **Criticisms of the TRA**

According to Davis et al. (1989), the TRA is an all-encompassing model that does not define which convictions may be utilized for certain acts. As a consequence, researchers utilizing the TRA might begin by selecting the convictions that stand out the most for the subjects under study. The TRA's incapability to predict outcomes or outcomes from behaviour is another flaw (Sheppard et al., 1988). Ajzen and Fishbein (1980) acknowledged that their model had flaws in terms of separating objective and social goals. The theory could, for example, predict whether a person would begin eating healthier (by taking an eating regimen pill, eating less, and so on), but it couldn't predict whether the person would achieve their goal of becoming healthier (Sheppard et al., 1988).

Another disadvantage is that the TRA only controls behavior that is under the person's control. As a consequence, behaviors that are influenced by variables outside an individual's conscious control fall outside of the model's limit conditions (Sheppard et al., 1988). This hypothesis has received a lot of criticism. If the success of an operation presupposes the use of abilities or properties, the model's requirements cannot be met. Despite a strong desire to do so, the person would most likely be unable to carry out the activity in this case (Sheppard et al., 1988). If a person does not have the necessary assets, such as a computer or internet connection, he or she will be unable to utilize online banking. As a result, if a person's volitional regulation is low, the TRA is unable to accurately predict their behavior (Ajzen, 1985). Such concepts are incorporated into the TPB, which is an extension of the TRA.

### **2.5.3 Innovation Diffusion Theory**

Another model that is also commonly used to explain and analyze the adoption rate of a new technology is the Innovation Diffusion Theory (IDT). The theory was introduced by Rogers (2003). Rogers defines Innovation diffusion as: diffusion is the process by which an innovation is disseminated through certain channels over time among social system members; an innovation is an idea, a practice, or an object that is considered new by individuals or other units. Rogers (2003) proposed five stages that a potential adopter will go through (Figure 2.3). The stages are: Relative Advantages, Complexity, Triability, Observability and Compatibility.

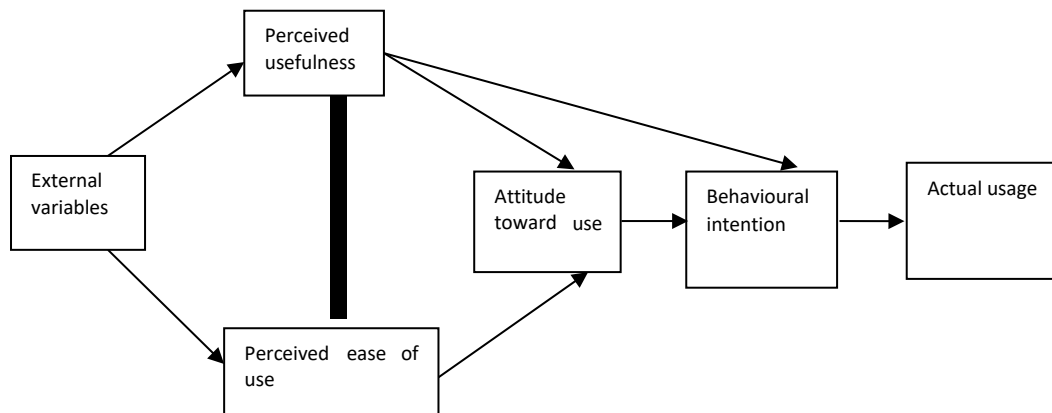
1. Relative Advantages - The degree to which an innovation is seen as better than the idea, program, or product it replaces.
2. Complexity - How difficult the innovation is to understand and/or use.
3. Trialability - The extent to which the innovation can be tested or experimented with before a commitment to adopt is made.
4. Observability - The extent to which the innovation provides tangible results.
5. Compatibility - How consistent the innovation is with the values, experiences, and needs of the potential adopters.

### **2.5.4 The Technology Acceptance Model (TAM)**

Davis et al. (1989) established the Technology Acceptance Model (TAM), which is a modification of the Theory of Reasoned Action (TRA) and has been modified for the information system setup. TAM's goal is to "clarify the determinants of machine acceptance when all is said and done," as well as "clarify user behavior across a variety of computing technologies and populations," according to Davis et al. (1989:985). TAM was created to forecast and explain how well information innovation is accepted and used in the workplace (Venkatesh et al., 2003:428). TAM posits that conduct purpose governs information system use, however unlike TRA, behavioural intention is characterized by the individual's attitude toward using the system and perceived utility. Perceived utility and perceived ease of use, according to TAM, are crucial for information system innovation acceptance behaviour. All of these are influenced by external variables such as planning, user support, documentation, associated information, and device highlights. As a result, observed usefulness in the context of e-banking refers to the idea that the more a person believes e-banking can improve their performance, the more likely they are to use it. Rather, apparent ease of use implies that the

simpler an e-banking system appears to be, the more likely a buyer is to use it. TAM also claims that obvious utility is a result of ease of use in a limited context.

Figure 2.1: Technology Acceptance Model



Source: (Davis *et al.*, 1989:985)

TAM is widely used and accepted to explain the relationship between perceptions and the use of technology, according to Azmiet al. (2010), and the two main constructs that influence behavioural intention are PU and PEU; PU is defined as the user's perception of the degree to which using the system will improve his or her performance in the workplace, and PEU is defined as the user's perception of the amount of effort they will need to use the system. PEU and PU have been shown to have considerable impacts on BI by previous researchers (Venkatesh and Davis, 1996; Davis et al., 1989; Agarwal and Prasad, 1999, quoted in Benbasat and Barki, 2010). The attitude component is removed from this extended TAM model, as it was in Davis et al. (1989), due to its ineffectiveness un mediating the effects of beliefs on behavioural intention (cited in Azmiet al., 2010). TAM models may be useful within and across organizations for evaluating applications or technologies, as well as making comparisons between user groups or apps, when it comes to projecting utilization (Fu, Farn, and Chao 2006). The technology acceptance model (TAM) is more than 3 times as influential as the next most cited theory, the information systems success model (ISM), which was developed only 3 years after TAM, making it a clear choice as the leading paradigm in the information systems field, according to Moody, Jacob, and Amrit (2016). The Technology Acceptance Model (TAM) is often referred to as the most prominent and commonly applied theory in information systems, and it is also believed to be the sole well-recognized theory in the information systems area, according to (Benbasat and Barki 2010).

### 2.5.5 Unified Theory of Acceptance and Use of Technology (UTAUT)

Although consumer acceptance of new technology is a well-developed research train in contemporary information systems science, the numerous theoretical models and trial assessments that began more than a decade ago were analyzed and synthesized as they led to Venkatesh, Morris, Davis, and Davis's Unified theory of acceptance and use of Technology (UTAUT) (2003). Venkatesh et al. (2003) UTAUT, as a unified perspective on user acceptability, offers a broader set of factors.

By merging eight conflicting theoretical models, the authors discover an overall arrangement of four statistical study items that influence acceptance and consuming behavior. TAM and Diffusion Theory evolves such as obvious utility (Davis, 1989) and outward motivation are included in the first among the other builds, performance expectancy (Davis et al., 1989). Moore and Benbasat (Moore & Benbasat, 2016). In TAM, effort expectancy includes perceived ease of use (Davis, 1989) and uncertainty in Diffusion Theory. Although social power is comprised of constructs such as behavior management (Davis, 1989) in TAM and picture in Diffusion Theory (Moore & Benbasat, 2016), facilitating conditions include constructs such as compatibility (Moore & Benbasat, 2016) in Diffusion Theory.

Due to the difficulty for information systems researchers in selecting a suitable model from a large number of models, as well as the issue of selecting a variable across models or a supported model that could lead to ignoring the commitment of other models, a combination of eight different adoption models was used to arrive at an integrated view on user acceptance of innovation (Venkatesh et al., 2003). Venkatesh et al. (2003) investigated and analyzed eight commonly used models by information systems researchers in order to better understand innovation adoption behavior. Nonetheless, following their research, the authors identified five main drawbacks to using these popular ideas, including:

- a) As contrasted with the intricate and complex hierarchical innovation, the innovation examined were straightforward and individualistic;
- b) Except for a couple of the studies most members used for these studies were understudies;
- c) Individuals' responses were review since times of estimation were general and in many studies well after acceptance or dismissal of the usage choice;
- d) In general, a cross-sectional type of estimation was used; and

e) It turns out to be rather hard to sum up outcomes to mandatory settings since The eight models in a longitudinal field trial observer-determined and separated the data into mandatory and intentional contexts in order to remove these limitations by Venkatesh et al. (2003). Directing factors that have been identified in the literature as influencing information system adoption and use choices were also considered. In either case, it was acknowledged that, with the exception of the motivation model and social cognitive theory, the models' prescient validity increased after the moderators were considered. Venkatesh et al. (2003) investigated the similarities between these models and discovered seven develops to be significant direct determinants of purpose or use in at least one of them. As a result, they hypothesized that five of these developments play a significant role as immediate determinants of user acceptance and behavior. Performance expectancy, effort expectancy, social impact, encouraging circumstances, and conduct purpose are among them.

a) Performance Expectancy: This alludes to how much an individual sees that the use of a system will help him/her to accomplish gains in work performance.

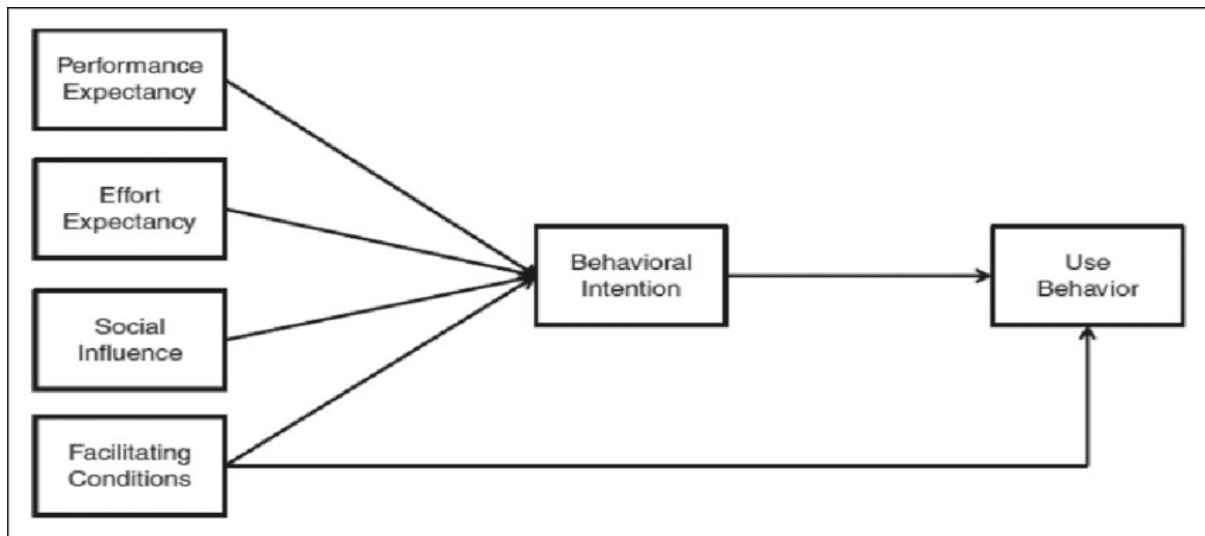
b) Effort Expectancy: This alludes to the perception of ease related to the usage of another technological development or system.

c) Social Influence: This alludes to how much an individual sees that significant others accept he/she should use another technological development or system.

d) Facilitating Conditions: This alludes to how much an individual accepts that a hierarchical and specialized infrastructure exists to help the use of another technological advancement or system.

e) Behavioural Intention: This alludes to how much an individual means to use a system.

**Figure 2.2 UTAUT Model**



Source Venkatesh et al. (2003)

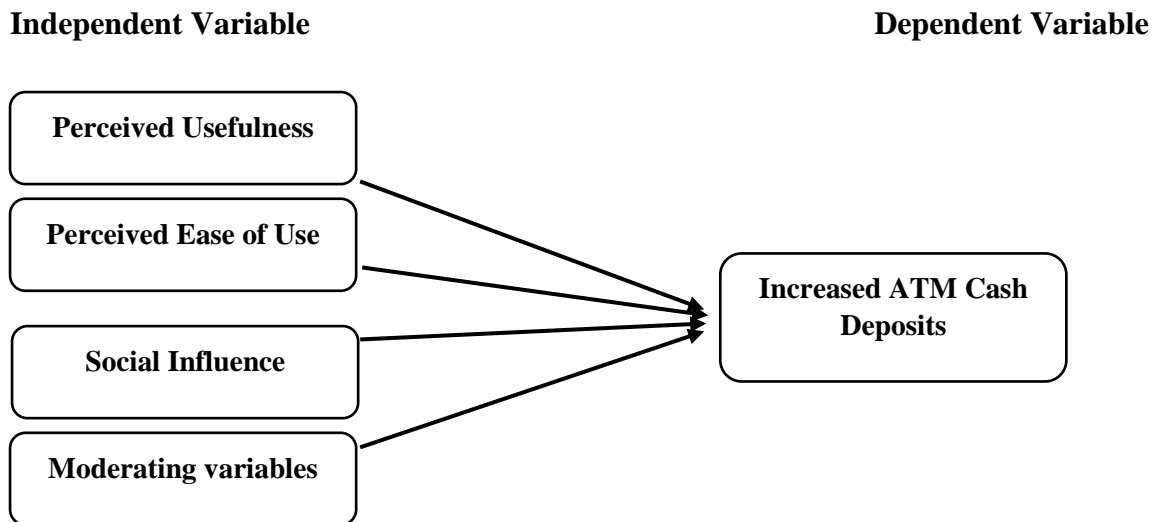
In spite of the many studies undertaken on the adoption of the e-banking platforms globally, limited research has been conducted in Zambia specifically. Saxena (2018) indicates that the adoption and use of electronic banking remains fertile for further academic research. From the researcher's literature review knowledge, no research has been undertaken in Zambia using the Unified Theory of Acceptance and Use of Technology, an all-inclusive model as the same amalgamates the theories of eight models that have previously been used to explain technology acceptance. These theories include; Theory of planned behavior (TPB), Diffusion Innovation theory (DIT), Theory of Reasoned Action (TRA) Social Cognitive Theory, Personal Computer Use (PCU), Technology Acceptance Model (TAM), Motivational Model (MM) and Combined theory of planned behavior. The UTAUT theory has also been proven to explain for 70% of the variance in Behavioral Intention (BI) and 50% in actual usage.

## **2.6 Conceptual Framework**

The conceptual framework has been clearly clarified in different ways; coherent ideas or concepts have been coordinated so that they are easy to convey to others and a coordinated perspective on how and why a research is conducted and how we understand its activities (Cresswell and Clark 2015). In this study, the conceptual framework is a combination of TAM and UTAUT. This study is significant in the determination of the validity of the factors that affect ATM cash deposit services in a developing Country such as Zambia. This study's model

will be of great help in the driving of the e-banking particularly ATM cash deposit services adoption which will ultimately accelerate the financial inclusion journey in Zambia.

**Figure 2.3 Conceptual Framework**



**Hypotheses Development**

**Perceived Usefulness**

TAM's original constructs were perceived usefulness and perceived ease of use. Perceived usefulness, according to Davis (1989), is the degree to which a person believes that utilizing a certain system will improve his or her job performance. There is a lot of research in the IS world that shows that perceived usefulness has a big impact on usage intentions (for example, Cheong and Park, 2005; Chiu et al. 2005; Luarn and Lin, 2005). Furthermore, Cheong and Park (2005) and Chiu et al. (2005) discovered that perceived usefulness was linked to online purchase intentions and mobile internet usage, respectively. These findings are in line with those of Luarn and Lin (2005), who discovered that perceived usefulness had a beneficial impact on mobile banking users' usage intentions. Similarly, Ramayah and Suki (2006) showed that perceived utility was a key factor of mobile PC adoption among Master of Business Administration students at University Sains Malaysia in a study on mobile personal computers (PCs) (USM). The inclusion of this metric in the analysis is due to Tabung Haji's consumers' use of TAB as a convenient method of financial transactions. As a result, perceived usefulness is a good fit for this research. The hypothesis below is developed and will be tested in this study:

H1. There is a significant relationship between perceived usefulness and usage intentions.

### **Perceived Ease of Use**

Perceived ease of use is the second factor in TAM's original constructs. The degree to which a person believes that utilizing a specific technology would be painless is referred to as perceived ease of use (Davis, 1989). Since the late 1990s, extensive research has shown that perceived ease of use has a major influence on usage intentions (Adams et al., 1992; Davis, 1989; Guriting and Ndubisi, 2006; Ramayah et al., 2002; Ramayah et al., 2003). Furthermore, Guriting and Ndubisi (2006) discovered that in Eastern Malaysia, perceived ease of use had a significant favorable impact on behavioral intention to use internet banking. Similarly, when internet banking is simple to use, people are more likely to use it (Guriting and Ndubisi, 2006).

Ramayah et al. (2013) discovered that perceived ease of use had a substantial impact on intention to utilize Internet banking in Penang, Peninsula Malaysia. The findings of Ramayah et al. (2002), and Davis et al. (1992) are all supported by this result. As a result, it's likely that the general causalities discovered in TAM will also apply to the TAB context. Davis et al. (1989) also argued that perceived ease of use was a predictor of reported usefulness. Results from prior research, in line with Davis et al. (1989), demonstrated a substantial link between two dimensions, namely perceived ease of use and perceived usefulness (Davis et al., 1989; Kleijnen et al., 2004; Wang et al., 2003). Thus, based on these findings, the following hypotheses were developed:

H2. There is a significant relationship between perceived ease of use and usage intentions.

### **Social Factors**

A person's perception of how necessary others believe he or she can employ a different way is known as social influence. Existing models for this concept discuss subjective criteria (TRA, TAM2, TPB/DTPB, and consolidated TAM-TPB), social elements (MPCU), and the picture in different ways (DOI). There is a link between the way these models are implemented and the installation of new systems, according to Al-Qeisi (2009). As a result, according to Datta (2011), for adopters who lack appropriate expertise, the interpretation of referent becomes a significant difficulty for social purpose. Furthermore, despite the fact that social impact has been proved in a variety of models, its use in predicting conduct intentions has been questioned. As a result, social influence is required to positively influence Internet banking adoption

conduct intention, according to AbuShanab et al. (2017). Based on a review of the literature, social influence can be thought of as influencing the behavioral intention of purchasers in Zambia to use Internet banking. As a result, the following hypothesis has emerged:

H3: There is a significant relationship between social influence and usage intentions.

### **Moderating variables**

The frequency with which a person acknowledges the existence of an authoritative and specialized infrastructure to assist in the use of a system is referred to as facilitating conditions (Venkatesh et al., 2005). It's vital to recall that using a system involves specialized knowledge, assets, and advanced infrastructure (Riffai et al., 2012); and that these services, like as the Internet and computers, are typically not available outside of the shopper context (Venkatesh et al., 2012). As a result, Joshua and Koshy (2011) contend that the easier respondents' access to the Internet and computers, the more proficient their use of the device and Internet becomes, eventually leading to a larger adoption rate of Internet users. As a result, fostering conditions play a critical role in boosting or destroying customers' intentions and acceptance of Internet banking, as well as facilitating the services gained from using online banking (Lin & Anol, 2008; Riffai et al., 2012).

Thole and Hamooya (2019) conducted a study to investigate the usage of ATMs for improved service delivery with focus on Cavmont Bank Kalingalinga Branch, Lusaka, Zambia. The objectives of the study were to assess customers' level of knowledge on the usage of the ATMs; to evaluate the user friendliness of the ATM at Cavmont Bank Kalingalinga Branch; and to establish the challenges of having one ATM at Cavmont Bank Kalingalinga Branch. The study established that all the respondents were well aware of the ATM at the Cavmont Bank Kalingalinga Branch. However, only 62% of the respondents had used the ATM. The majority (51%) of the respondents considered the ATM at Cavmont Kalingalinga Branch to be user friendly. Of the 62% of people using the ATM, 53% indicated that having few ATMs in Kalingalinga will result in customer dissatisfaction which may compel them to seek better services from other banks. Nonuse of the ATM was attributed to many factors including lack of ATM cards, security of the location of the ATM and technical issues such as insufficient funds in the ATM, especially on weekends. The study therefore recommended that, in order to maximize the benefits of this information technology, clients should be properly orientated to the operations of the technology.

As a result, the following is the hypothesis:

H4: There is a significant relationship between facilitating conditions and usage intentions.

## 2.7 Summary of Related Studies

This section brings to the fore a summary of other related studies that have been conducted in relation to the current study.

**Table 2.1: Empirical Studies e-Banking Adoption**

Author	Focus	Underpinning theory and framework	Research method and countries	Relevant gaps for future research
Alalwan et al. (2014)	Determinants of the Internet Banking Intention in Malaysia	TAM, TR and CSE	Quantitative, Malaysia	Need to consider relevant factors such as social influence and ease of use
Njuguna et al. (2012)	Internet banking adoption in Kenya: A case of Nairobi county		Quantitative, Kenya	Need for future researchers to explore the moderation effect of education on the adoption of Internet banking among users.
Raza and Hanif (2013)	Factors affecting Internet banking adoption among internal and external customers: A case of Pakistan	TAM	Quantitative, Pakistan	Need for future researcher to consider other factors that influence Internet banking adoption from other models other than TAM.
Rouibah, Thurasamy,	User acceptance of Internet	TRA, TPB and TAM	Quantitative, Malaysia	Need for future studies to explore the

and May (2009)	banking in Malaysia: test of three competing models.			usage behaviour factor and the relationship between behavioural intention and usage behaviour.
Muzividzi, Mbizi, & Mukwazhe 2013	An analysis of factors that influence Internet banking adoption among intellectuals: case of Chinhoyi University of Technology.	No Framework	Quantitative, Zimbabwe	Need for future researchers engage more with customers to identify other factors that influence the adoption of the Internet banking technology with particular interest of any specific ebanking tool such as ATM cash services
Lee (2009)	Factors influencing the adoption of Internet banking: An integration of TAM and TPB with perceived risk and perceived benefit	TAM, TPB, Perceived risk and Perceived benefit	Quantitative, Taiwan	Need for future researchers to explore the influence of external factors such as nationality social influence, and culture on the adoption of Internet banking.
Ofori-Dwumfuo & Dankwah (2013)	Adopting Internet banking in Ghana	Stages theory	Qualitative, Ghana	Need for future researchers to focus on consumers' adoption of the Internet banking

				technology with a larger sample size.
Santoso & Murtini (2014)	Usage and risk perception of Internet Banking: case study in Yogyakarta Special region, Indonesia	Awareness, usage and Perceived risk	Quantitative, Indonesia	Need for future researchers focus on other factors that influence that adoption of Internet banking such as perceived usefulness perceived ease of use, social influence facilitating conditions and the relationship between behavioural intention and usage behaviour.
Daniel & Jonathan (2013)	Factors affecting the adoption of online banking in Ghana: Implications for bank managers	TAM intertwined with the moderating role of government support, trust and security	Quantitative, Ghana	Need for future researchers to explore factors such as social influence and the moderating effect of education and age on adoption of Internet banking.
Andoh-Baidoo & Osatuyi, (2009)	Examining online banking initiatives in Nigeria: A value network approach	A value network theory	Qualitative, Nigeria	Need for future researchers to focus on consumer adoption of Internet banking services deployed online.
Kesharwani & Bisht (2012)	The impact of trust and perceived risk	TAM, Privacy, Security and Trust	Quantitative, India	Need for future research to explore other factors that can

	on Internet banking adoption in India: An extension of technology acceptance model			influence technology acceptance.
Muhammad & Khalil (2012)	Internet banking and Jordanian corporate customers: Issues of security and trust	TAM, trust and perceived security	Quantitative, Jordan	Need for future researcher to consider other factors such as social influence and the relationship between behavioural intention and usage behaviour.
Lin (2011)	An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust	Innovation diffusion theory and knowledge-based trust literature	Quantitative, Taiwan	Need for future research in effort to explore other models and theories in order to identify other antecedent of Internet banking adoption
Yuen (2013)	Gender and age effect on acceptance of Internet banking: cultural comparison between the	UTAUT	Quantitative, Malaysia and USA	Need for future researchers to factor in demographic characteristic such as education.

	United States of America and Malaysia			
Migdadi (2008)	Quantitative evaluation of the Internet banking service encounter's quality: comparative study between Jordan and the UK retail banks.	QEM	Quantitative, Jordan and UK	Need for future researchers to examine the gap between consumer intention to use online banking and actual usage behaviour.
Al-Qeisi (2009)	Anlysing the use of the UTAUT model in explaining an online behaviour: Internet banking adoption	UTAUT	Quantitative, Jordan and UK	Need for future researchers to examine the relationship between facilitating conditions and usage behaviour as well as the considerable relationship between behavioural intention on usage behaviour.

Source: Researcher, 2023

## 2.8 Research Gap

The previous section attempted a study and discussion of e-banking adoption in developed and developing countries. Based on the evidence presented and the potential directions suggested, this section contends that TAM has been used in a number of studies around the globe. To close the gap, this study will combine two theories namely TAM and UTAUT. From the TAM model, the researcher will adopt perceived usefulness and perceived ease of use. Furthermore, the researcher will adopt facilitating conditions and social influence from the (UTAUT) model.

This will bring to the fore variables from UTAUT that have not been extensively examined. The need for research to investigate the influence of the social influence and facilitating conditions on the behavioral intention among Internet banking users in developing nations. Furthermore, the reviewed literature highlights the fact that a number of studies only focused on e-banking in general. This study, however, aims at critically evaluating factors that affect ATM cash deposit services adoption. Additionally, this study will be conducted from the Zambian point of view with regards ATM cash deposit services.

The main purpose of this section was to explore the thematic areas in e-banking research and finding the most researched issues, and the most used theoretical approaches in the area and suggest the need for further studies. As a result of this, the various evidence presented and the subsequent discussions produced, indicated the need for more studies to focus on other factors that influence the adoption of e-banking, particularly ATM cash deposit services in a developing country such as Zambia; and the need to use a stronger framework that would incorporate most of the factors that influence the adoption of Internet banking in developing countries. In view of this, the gaps coincide with the purpose of the study that seeks to explore the influence of perceived usefulness, perceived ease of use, social influence, facilitating conditions and behavioural intention on consumers' adoption of ATM usage. Furthermore, this study will particularly zero in on factors that affect the adoption of ATM adoption in Zambia as opposed to the previously reviewed literature that largely focused on e-banking in general.

## **2.9 Chapter Summary**

This chapter highlighted the theoretical framework that underpinned the study. Furthermore, the chapter also highlighted the empirical studies that have been conducted on factors affecting ATM adoption around the globe. Research gaps observed in the various studies reviewed in this study were also presented in this chapter. The conceptual framework that was adopted in this study is also presented together with the discussion on the adopted variables for the study. The chapter that follows will present the research methodology.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

The research methodology used to examine factors affecting the adoption of ATM usage is described in this chapter. It includes, the research design, information on the population and sample, data collection procedures, the content of the instruments used, their validity and reliability, pre-testing of the instruments, and a pilot study. There is also information on ethical issues and data analysis methods.

#### **3.1 Research Design**

Research design refers to the general plan of how one will go about answering the research question (Cresswell and Clark 2015). This study was causal in nature as it sought to establish the causal relation between ATM cash deposit services and adoption. In order to examine the causal relationship, this study will use the quantitative approach to research design.

With a quantitative type of study, results can be statistically analyzed and extrapolated to a bigger context than the one being studied (Bryman, 2001). This research method is grounded in the positivist worldview, which permits generalization without taking context into account (Newman & Benz 2014). As a result, according to Neuman and Neuman, authors who employ a quantitative research methodology are more likely to employ reconstructed logic (2006). This demonstrates that the justification for conducting research is properly structured and expressed in a formal, orderly, and idealistic way. Quantitative research is frequently used to examine how people feel, think, and act in specific situations. Its goal is to organize and standardize statistical analysis and data quantification. Large samples (50 or more) are frequently used to collect data for quantitative investigations (Creswell, & Clark, 2017). A systematic questionnaire with predetermined answers and closed-ended questions is therefore frequently utilized. The quantitative method is therefore thought to be concise and capable of giving a representative sample of a large" population (Creswell, & Clark, 2017).

### 3.2 Study Population

A population, according to Saunders et al. (2013), is a complete group of instances from which a sample is taken. Cresswell and Clark (2015), on the other hand, describe a population as a representation of all persons who fit into the category of interest or objects or occurrences that meet particular criteria and to which we wish to generalize the research findings. In the case of this research, the population comprises all ABSA Zambia bank customers based in Lusaka District. There are approximately 40,000 ABSA Zambia bank customers based in Lusaka District according to the ABSA annual report of 2022.

### 3.3 Sampling Technique and Sample Size

This study used purposive sampling, as Lusaka District was selected on purpose, due to the fact that technology dissemination starts from the Capital City. The study also used voluntary sampling technique to collect data from participants. There are approximately 40,000 ABSA bank Zambia customers based in Lusaka District according to the ABSA annual report of 2022. The sample estimate for the current study will be calculated using Yamane's formula given by.

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

Where  $n$  is the sample size,  $N$  is the population size, and  $e$  is the level of precision which was set at 0.05 (5%) with a confidence level of 95%.

Applying the formula to derive the sample size gives the following.

$$n = \frac{40,000}{1 + 40,000 (0.05)^2} = 396.0396$$

Therefore, the sample size for this study was 397 customers

### 3.4 Methods of Data Collection

Any study, whether behavioural or experimental, includes data collecting, according to Saunders (2007). The data may be categorised as either being primary or secondary data. In this study, the researcher used primary data. The researcher collected primary data through questionnaires. Target responders were asked closed-ended questions. According to Mugende

& Mugende (2012), a researcher might employ a variety of data gathering strategies. The data for this research was collected using a questionnaire.

A survey questionnaire was used to collect data. For quantitative research, survey research methodologies are ideal. The ability to accommodate high sample sizes, generalizability of results, ability to discern small changes between varied sampled groups, and relative ease of administering and recording questions and answers are some of the key advantages of the survey approach (Hair et al., 2016). Obtaining data from people with varying levels of experience reduces information bias and hence increases the information's trustworthiness ((Snyder, 2019). Furthermore, the sample size and geographic distribution might be quite big. Anonymity may often be readily maintained; that is, no personally identifiable information is linked with the data. A correctly prepared questionnaire produces data that may be simply categorized, tabulated, and examined. Additionally, one of the primary benefits of the survey technique is the capacity to discern slight changes between distinct sampled groups, as well as the relative ease of directing and recording questions and replies. Getting data from people with different degrees of experience decreases knowledge bias and improves the reliability of the information. The” use of a questionnaire is a common strategy due to these obvious benefits (Hair, Shiu, Bush & Ortinau, 2019). In addition, this study also collected qualitative data from bank management using an interview guide. This was aimed at getting the bank’s perspective on the problem and obtain the factors behind.

### **3.5 Data Analysis**

According to Bell et al., (2022), data analysis is a technique for drawing conclusions from data by systematically and objectively identifying certain characteristics. To summarize and describe details collected from respondents, the quantitative data was analysed using inferential and descriptive statistical approaches. The descriptive statistics included; frequencies, percent, mean and standard deviation. The statistical package for social science (SPSS) was used for this, and logistic regression analysis in particular. The study specifically used logistic regression analysis to statistically determine the factors affecting the use of ATMs for cash deposit. The model is specified as follows:

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + \dots \dots b_jx_j$$

From this regression model; y is the dependent variable and x<sub>1</sub>, x<sub>2</sub>,...x<sub>j</sub> are the independent variables; b<sub>1</sub>, b<sub>2</sub> .....b<sub>j</sub> are the odds ratios.

In addition, the study used content analysis to summarise the responses from the qualitative data that was obtained from management.

### **3.6 Reliability and validity.**

**Reliability.** A Cronbach coefficient alpha will be used to examine reliability. This is the most popular and effective approach for assessing the reliability of a measurement scale with multi-point items (Hair et al., 2016). The coefficient, which measures how homogeneous a group of objects is, ranges from 0 to 1. A decent reliability, on the other hand, should yield a coefficient value of at least 0.70 (Hair et al., 2016).

**Validity.** The validity of a measuring instrument is defined as how well it measures what it is supposed to measure. The main problems of measurement validity, according to Bryman and Bell (2003), are whether the measures of ideas really measure the concept. Validity is the question of whether an indicator (or collection of indicators) designed to assess a notion really does so. Face validity, concurrent validity, predictive validity, concept validity, and convergent” validity is some of the methods for determining validity (Bryman and Bell, 2003). Construct validity was used in this study. A correlation analysis between the variables was used to determine construct validity in terms of discriminating validity testing. Confirmatory factor analysis was used to determine concept validity in terms of convergent validity. The factor loadings for each measurement item, as well as the KMO and Bartlett's tests, were evaluated.

### **3.7 Ethical Considerations**

This pertains to the researcher's moral standards, which were considered in all research methodologies at all phases of the research design. In this study, research ethical considerations included informing participants about the study's objective, refraining from deceptive techniques, sharing information with participants, respecting the research site, and protecting anonymity (Cresswell and Clark 2015).

### **3.8 Chapter Summary**

This chapter examined the Population the study, sample size, sampling technique, and study design. The researcher looked at the validity and reliability of data collection tools, as well as the validity and reliability of data collection tools, data collection tools, the data gathering

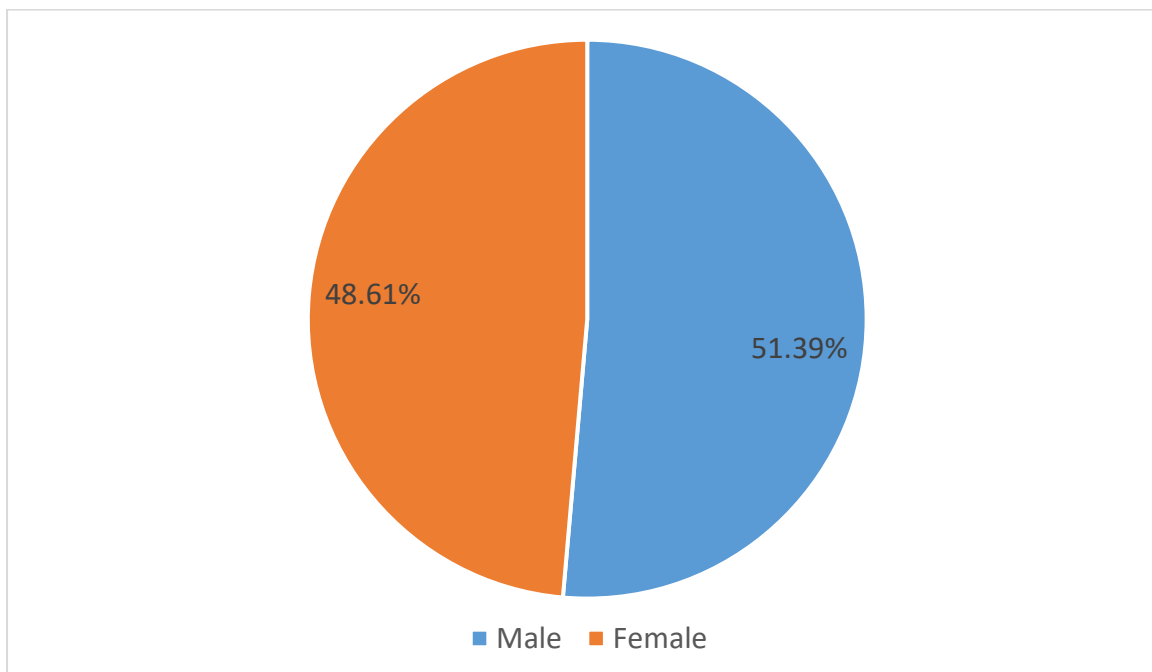
process, and pre-testing of data collection tools. Additionally, considered were research permission, pilot testing, and ethical considerations.

## CHAPTER FOUR RESULTS AND DISCUSSION

### 4.1 Introduction

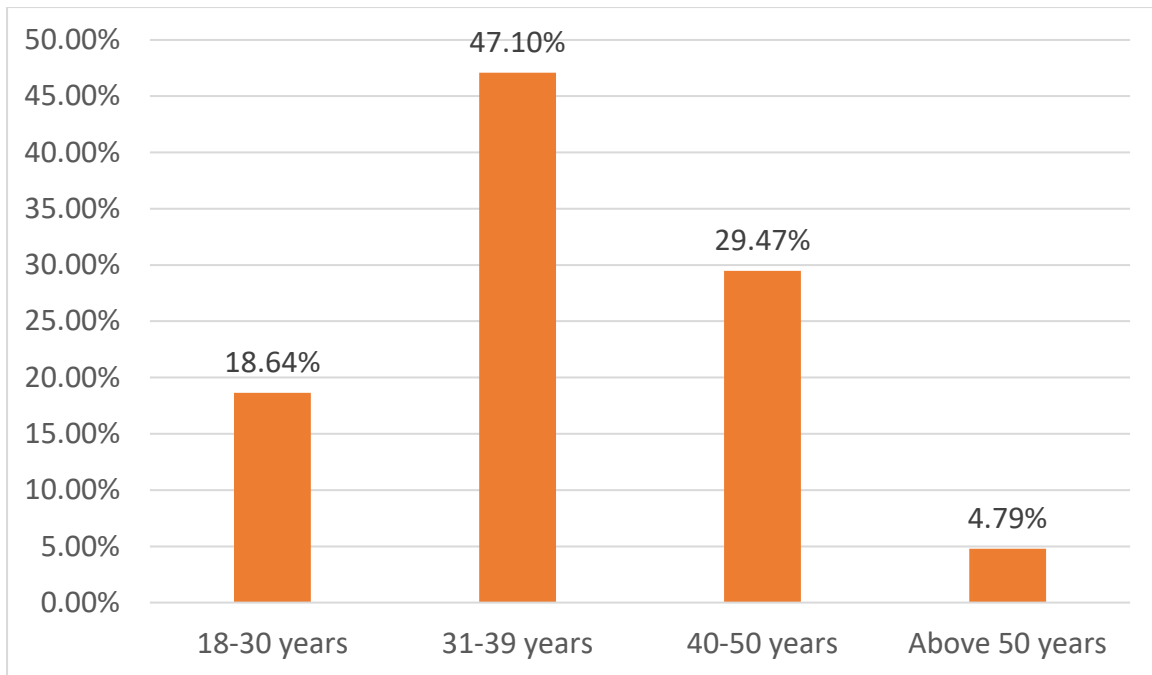
Chapter four presents the results of study which was conducted to assess the factors affecting the use of ATM cash deposit services, a case study of ABSA Bank Zambia, in Lusaka. The results presented in this chapter is from the data that was collected from 397 ABSA bank customers in Lusaka District. The results presented is in line with the objectives of the study. The chapter, will first present results on the demographic characteristics of the participants, then descriptive results on various variables, and statistical results. The chapter also presents results from the qualitative data obtained through interviews. Lastly the chapter will discuss the results in the light of existing literature on the subject.

### 4.2 Demographic Characteristics of the Participants



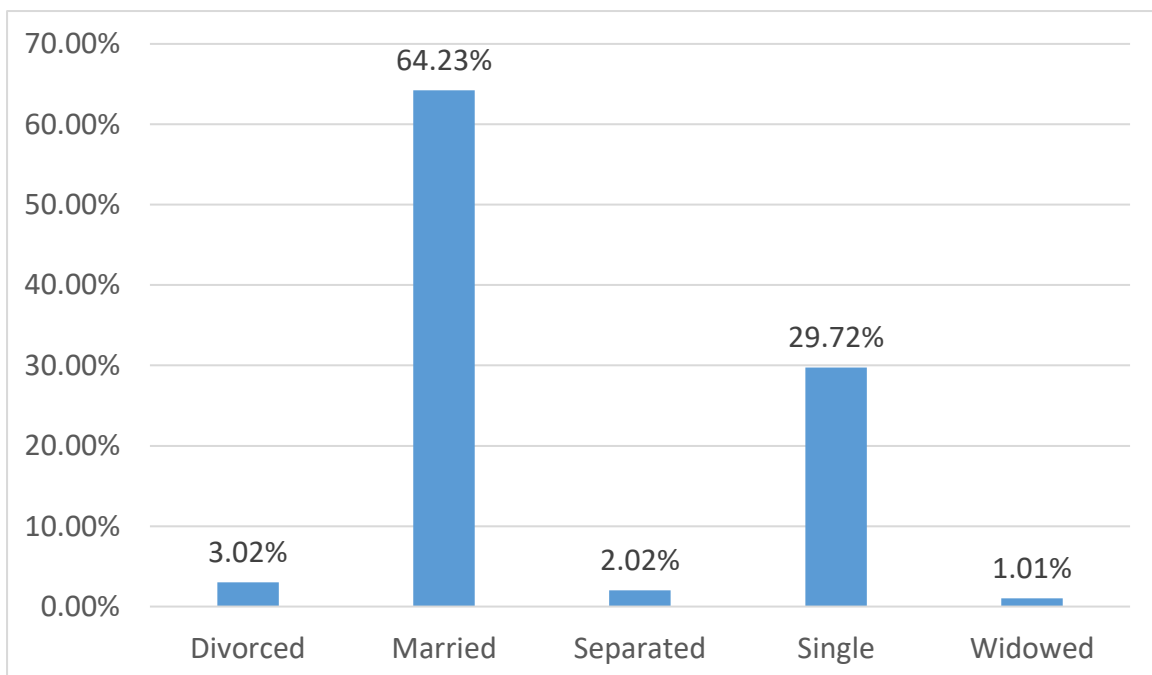
**Figure 4.1 Gender Distribution of the Respondents**

From the results in figure 4.1 on the gender distribution of the participants, 48.61% of the participants were female, while 51.39% of the participants were male. There was almost an equal number of male and female participants, with the male having a slight higher number.



**Figure 4.2 Age Distribution of the Participants**

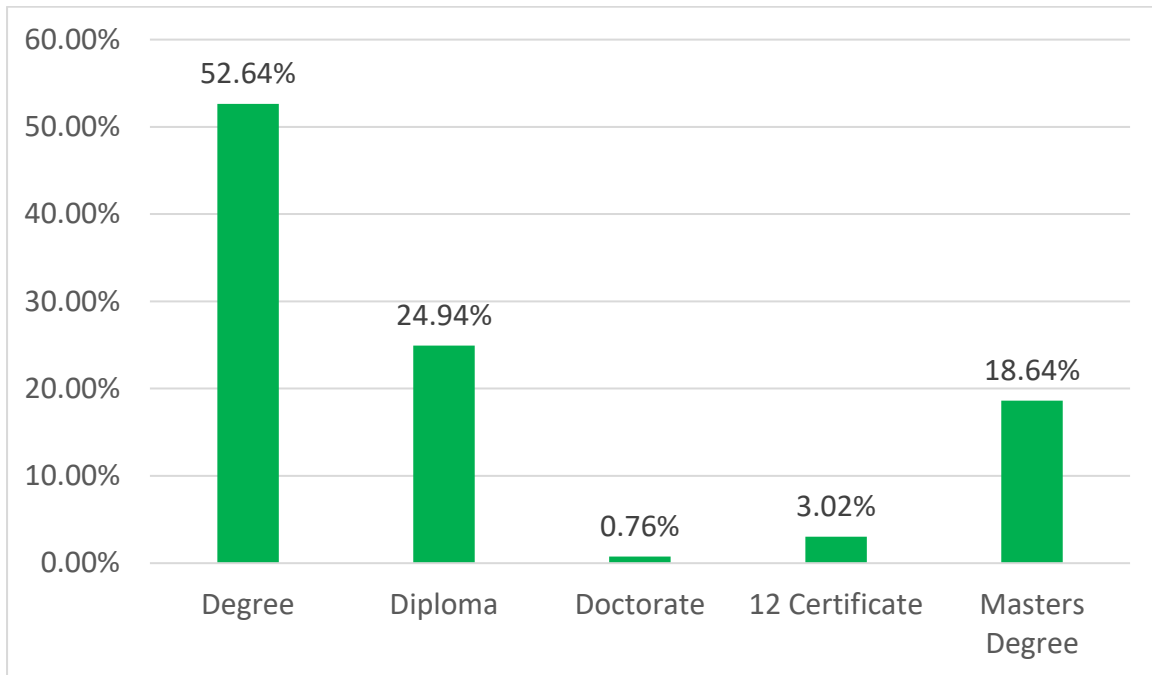
Figure 4.2 shows age distribution of the participants. The results shows that 18.64% of the participants were aged 18-30 years, 47.10% of the participants were aged 31-39 years, 29.47% of the participants were aged 40-50 years of age, and 4.79% of the participants were aged above 50 years. From the results above, majority of the respondents were aged 40 years and below.



**Figure 4.3 Marital Status of the Participants**

From the results in the figure above, 3.02% of the participants were divorced, 64.23% of the participants were married, 2.02% of the participants were separated, 29.72% of the participants

were single, and 1.01% of the participants were widowed. The results clearly shows that the majority of the participants were married.



**Figure 4.4 Participants' Education Levels**

From the results above, 52.64% of the participants had attained degree level of education, 24.94% had attained diploma level of education, and 0.76% of the participants had attained Doctorate degree level of education. In addition, 3.02% of the participants had attained Grade 12 certificate level, and 18.64% of the participants had attained master's degree level of education. From these results, majority of the participants had attained higher level of education, a degree and higher levels.

**Table 4.1 Participants' years of banking with ABSA**

Years of banking with ABSA	Frequency	Percent	Cumulative.
1-5 years	80	25.08	25.08
6-10 years	49	15.36	40.44
Above 10 years	175	54.86	95.3
Less than a year	15	4.7	100
Total	319	100	

The results in table 4.1 shows that 25.08% of the participants have been with the ABSA bank for 1-5 years, 15.36% of the participants had been banking with ABSA for 6-10 years, 54.86% had been banking with ABSA for more than 10 years, and only 4.7% of the participants had been with ABSA for less than a year. The results show that majority of the participants had been banking with ABSA for 5 years and above.

**Table 4.2 Employment Status of the Participants**

Employment status	Frequency	Percent	Cumulative
Formal employment	364	91.69	91.69
Informal employment	12	3.02	94.71
Not in employment	11	2.77	97.48
Student	10	2.52	100
Total	397	100	

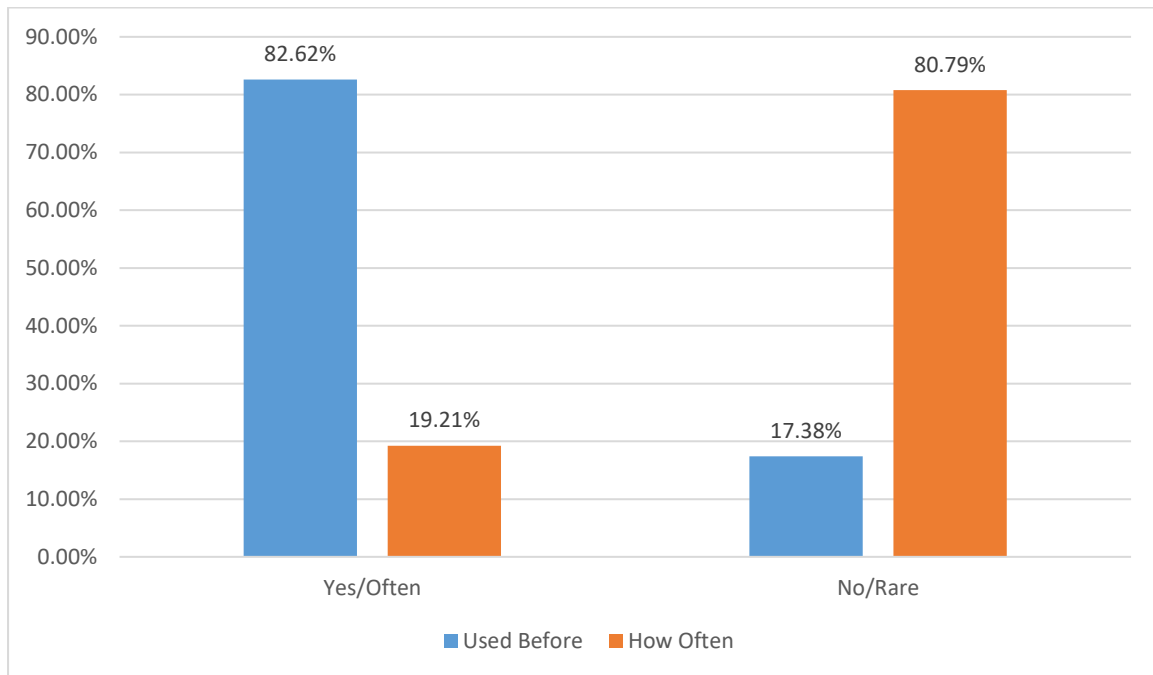
The study assessed the employment status of the participants. The study found that 91.69% of the participants were in formal employment, 3.02% were in informal employment, 2.77% were not in employment, and 2.52% were students. The results clearly shows that majority of the participants in the study were in formal employment.

**Table 4.3 System of depositing money customers are comfortable with**

Response	Frequency	Percent	Cumulative
On ATM machine	43	10.83	10.83
To a teller on the counter	354	89.17	100
Total	397	100	

The study assessed the system of depositing money customers were comfortable with, only 10.83% of the respondents were comfortable with depositing money on the ATM. The majority (89.17%) were comfortable with depositing money to a teller on the counter. The results clearly showed that most of the customers are not comfortable with using the ATMs for depositing money.

### 4.3 Use of ATM Machines for Depositing Money



**Figure 4.5 Use of ATM machines for Depositing Money.**

From figure 4.5, the study found that 82.62% of the customers have used the ATM before to deposit money, while 17.38% had never used the ATM to deposit money. From the bank customers who have used the ATM before to deposit money, only 19.21% of the customers had often used the ATM for depositing money.

**Table 4.4 Participants Opinion on whether depositing money on the ATM has benefits for them.**

Response	Frequency.	Percent	Cumulative.
Beneficial	151	38.04	38.04
Not beneficial	8	2.02	40.05
Partially beneficial	98	24.69	64.74
Very beneficial	140	35.26	100
Total	397	100	

Despite bank customers not adequately using the ATMs for depositing money, 38.04% indicated that depositing money on the ATM is beneficial, 35.26% indicated that it's very beneficial, 24.69% indicated that it's partially beneficial, and 2.02% of the respondents

indicated that it's not beneficial. Despite customers not using the ATM to deposit money, majority understands that using ATM for depositing money is beneficial.

**Table 4.5 Participants' position on ATMs for Depositing**

Variable	Agree	Disagree	Neither agree nor Disagree
There's enough information provided by ABSA on how to use the ATM machines for depositing money	46.6	23.43	29.97
The ABSA ATM machines are secure and safe for depositing money	49.79	24.01	26.2
The ABSA ATM machines are easy to use for depositing money.	45.19	21.06	33.75
The ABSA ATM machines are accurate when depositing money	56.24	15.04	28.72
The ABSA ATM machines are efficient for depositing money.	50.71	17.05	32.24
The ABSA ATM machines are reliable for depositing money.	54.91	13.1	31.99

The study further assessed participant's position on the ATMs for depositing money, only 46.6% of the respondents agreed that there's enough information provided by the bank on how to use the ATM for depositing money. Only 49.79% of the respondents agreed that ABSA ATM machines are secure and safe for depositing money. 45.19% of the respondents indicated that the ATMs are easy to use, 56.24% indicated that the ATMs are accurate when depositing money, 50.71% of the customers indicated that the ATMs are efficient, and 54.91% of the bank customers indicated that the ATMs are reliable. A significant number of customers indicated that the ATMs are not secure, safe, easy to use, accurate, efficient and reliable, and there's inadequate information provided by the bank on the use of the ATMs.

**Table 4.6 Logistic regression on factors affecting the use of ATMs for cash depositing**

					Number of obs	=	397
					Wald chi2(14)	=	69.81
					Prob > chi2	=	0.0000
					Pseudo R2	=	0.2523
Log pseudolikelihood = -129.86863							
	Odds	Robust Std.			[95%		
Use-ATM-Often	Ratio	Err.	z	P>z	Conf.	Interval]	
Lack of knowledge	0.1947	0.0977	-3.2600	0.0010	0.0728	0.5204	
Lack of awareness	0.0219	0.0304	-2.7500	0.0060	0.0014	0.3325	
Not Easy to Use	0.2249	0.1239	-2.7100	0.0070	0.0764	0.6619	
Not Trusting ATMs	0.0118	0.0196	-2.6700	0.0080	0.0005	0.3057	
Not secure-safe	0.2243	0.1355	-2.4700	0.0130	0.0686	0.7332	
Not reliable	1.0843	0.4372	0.2000	0.8410	0.4920	2.3897	
ATMs Bound to Errors	0.2973	0.0933	-3.8700	0.0000	0.1607	0.5498	
No bank instructors	1.4569	0.6058	0.9100	0.3650	0.6449	3.2913	
Family-using	1.9265	1.1192	1.1300	0.2590	0.6169	6.0156	
Friends-using	9.4288	9.4785	2.2300	0.0260	1.3145	67.6312	
age_40	0.3807	0.1285	-2.8600	0.0040	0.1965	0.7379	
Male-gender	2.1526	0.7695	2.1400	0.0320	1.0683	4.3374	
Diploma-less	0.9175	0.3019	-0.2600	0.7940	0.4813	1.7487	
Perceived-usefulness	2.6964	1.2709	2.1000	0.0350	1.0705	6.7920	
_cons	3.5991	4.5990	1.0000	0.3160	0.2941	44.0420	

The study determined the factors affecting customers' use of ATM machines for depositing money, in line with the aim of the study. The study found that lack of knowledge on the use of ATM was negatively affecting the use of ATMs for depositing money, statistically significant at 0.0010 p-value; lack of awareness had a significant negative effect on using the ATMs, statistically significant at 0.0060 p-value; Not Easy to Use had a significant negative effect on using ATMs, significant at 0.0070 p-value; Not trusting ATMs was found to have a significant negative effect on using ATMs, 0.0080 p-value. Not secure and safe was found to have a significant negative effect on using ATMs, at 0.0130 p-value. Not reliable had no significant effect. ATMs bound to Errors was found to have a significant negative effect on using AMTs, at 0.0000 p-value. No bank instructors and having a family member using ATM to deposit money were not statistically significant. Having friends using the ATM to deposit money was

found to have a significant positive effect on using ATMs, 0.0260 p-value. Age was found to have a significant effect, a customer with 40 years and below is less likely to use ATM for depositing money, significant at 0.0040 p-value. Being male had a significant positive effect on using ATMs, statistically significant at 0.0320 p-value. Having a diploma or less level of education had no significant effect. Perceived usefulness was found to have a significant positive effect on using ATMs to deposit money, customers who perceive ATMs to be beneficial are more likely to use the ATMs for depositing money, statistically significant at 0.0350 p-value.

**Table 4.7 Effect of perceived usefulness on use of ATMs (Fishers Exact Test)**

Using ATM	Beneficial	Not beneficial	Partially beneficial	Very beneficial	Total
Often	0	124	8	90	334
	1	27	0	8	63
Total	151	8	98	140	397

Pearson chi2(3) = 8.1149 Pr = 0.044 Fisher's exact = 0.040  
Cramér's V = 0.1430

The study also used Fishers exact test to determine the association between perceived usefulness and using the ATM often. The study found that there's an association between perceived usefulness and using the ATM often. Bank customers who perceive the ATM to be beneficial use the ATM often than those who don't.

#### 4.4 Discussion of Findings

The development of technology has had a tremendous impact on the spread of electronic banking. Banking is no longer constrained by time or territory thanks to technological advancements. Consumers around the world have relatively easy access to their accounts, which is available 24 hours a day, seven days a week. As a result, both banks and their clients profit from e-banking (Karjaluo et al., 2012). ATMs are one of the most common delivery methods in e banking since they allow clients to bank Anywhere, Anytime. The banking industry in Zambia has seen a significant shift from when there were only a few government-

owned financial institutions depending mostly on brick-and-mortar banks to where almost all of the 17 banking institutions now use technology to conduct business (Bank of Zambia, 2021). ABSA bank also provide ATMs for depositing money, and the bank installed additional ATMs in 2022. Despite ABSA bank providing ATMs for depositing money, long queues at banks persist during working hours, customers queuing inside the bank to deposit money to a teller at the counter, and this affect the efficiency and effectiveness of service delivery. Understanding the factors influencing consumers' attitudes towards the use of ATM cash deposit services is crucial. Therefore, this study aimed at assessing the factors influencing adoption of ATM cash deposit services.

### **Effect of perceived usefulness on consumers' intentions to adopt ATM cash deposit.**

Perceived usefulness was found to have a significant positive effect on using ATMs to deposit money, customers who perceive ATMs to be beneficial are more likely to use the ATMs for depositing money, statistically significant at 0.0350 p-value. In addition, the Fishers exact test also confirmed that there's an association between perceived usefulness and using the ATM often. Bank customers who perceive the ATM to be beneficial use the ATM often than those who don't. Yitbarek and Zeleke (2013) study analyzed the factors influencing customers' intention to adopt e-banking service channels, and the results revealed that perceived usefulness had a significant influence on adopt e-banking service. Nimako and Gyamfi (2013) examined factors that most importantly affect customer adoption of ATMs in Ghana, and the study found that perceived benefits had significant effect on the adoption of ATMs. Perceived usefulness has a big impact on usage intentions (Cheong and Park, 2005; Chiu et al. 2005; Luarn and Lin, 2005). Ramayah and Suki (2006) showed that perceived utility was a key factor of mobile PC adoption

### **Effect of perceived ease of use on consumer's intentions to adopt ATM cash deposit.**

From the results, Not Easy to Use had a significant negative effect on using ATMs, significant at 0.0070 p-value. Customers who find ATMs not easy to use are less likely to use the ATMs for depositing money. In addition, lack of knowledge was also negatively affecting the use of ATMs for depositing money, statistically significant at 0.0010 p-value. Without being provided with adequate knowledge, it's not easy to use ATMs for depositing money.

From the literature; a study by Molla (2017) found that receiving banking products or services through tellers based channel is more preferred than ATM-banking channel by bank customers. This may be due to customers finding ATMs not easy to use. Yitbarek and Zeleke (2013) study

analyzed the factors influencing customers' intention to adopt e-banking service channels the results revealed that perceived behavioural control is the dominant factor followed by perceived ease of use and attitudes in predicting an individual's intention to accept e-banking service channels. Nimako and Gyamfi (2013) examined factors that most importantly affect customer adoption of ATMs in Ghanaian banking industry. The study found that perceived ease of use critically affect the adoption of ATMs. Muze (2017) found ATM service complexity to be a significant factor affecting adoption.

### **Effect of facilitating conditions on consumer's intentions to adopt ATM cash deposit.**

Concerning the facilitating conditions; the study found that lack of knowledge on the use of ATM was negatively affecting the use of ATMs for depositing money, statistically significant at 0.0010 p-value; lack of awareness had a significant negative effect on using the ATMs, statistically significant at 0.0060 p-value; Not trusting ATMs was found to have a significant negative effect on using ATMs, 0.0080 p-value. Not secure and safe was found to have a significant negative effect on using ATMs, at 0.0130 p-value. Not reliable had no significant effect. ATMs bound to Errors was found to have a significant negative effect on using AMTs, at 0.0000 p-value. No bank instructors and having a family member using ATM to deposit money were not statistically significant.

Empirical findings from a study by Khan (2010) indicated that security and reliability are significant dimensions of ATM service quality and that ATM service quality positively and significantly contributes toward ATM adoption. A study by Shah et al. (2015) found that the top six factors for ATM service quality were: User-friendly website, systems security and all time availability of services. A case study analysis conducted by Khalfan et al (2016) on factors influencing the adoption of internet banking found that security and data confidentiality issues have been a major barrier. The banking sector was reluctant to use E-commerce applications as they felt that transactions conducted electronically were open to hackers and viruses, which are beyond their control. Sawalqa (2012) conducted a study on customers' financial needs satisfaction and self-service technology banking, the case of automatic teller machines (ATMs) in Jordan. The study found that that only privacy and security contributes significantly to the customers' satisfaction of self-service technology banking. Hamooya and Thole (2019) study indicated that having few ATMs result in customer dissatisfaction. Nonuse of the ATM was attributed to many factors including lack of ATM cards, security of the location of the ATM and technical issues such as insufficient funds in the ATM. Molla (2017), recommended undertaking awareness creation tasks to improve customers' knowledge on utilizing ATM-

banking packages, and also making ATM always functional and secure, and ensure frequent monitoring and maintenance. Mbogoro (2020) assessed the factors hindering commercial banks to adopt automatic cash deposit service using ATMs. The study found that perceived cyber security significantly influenced adoption of ATMs cash deposits. Alalwan et al, (2014) study aimed at proposing and validating a conceptual model demonstrating the main factors predicting customers' intention and adoption of Internet banking in Jordan. The study found that performance expectancy, facilitating conditions, and hedonic motivation along with perceived risk and trust were statistically significant.

### **Effect of social factors on consumer's intentions to adopt ATM cash deposit.**

Concerning the effect of social factors; having a family member using ATM to deposit money had no statistically significant effect on using the ATM. However, the study found that having friends using the ATM to deposit money was found to have a significant positive effect on using ATMs, significant at 0.0260 p-value. Age was found to have a significant effect, a customer with 40 years and below is less likely to use ATM for depositing money, significant at 0.0040 p-value. Being male had a significant positive effect on using ATMs, statistically significant at 0.0320 p-value. Having a diploma or less level of education had no significant effect.

From the literature; Darch and Caltabiano (2014) explored the relationship between demographic, user situational, attitudinal variables and ATM use in an Australian sample of older adults. The study suggested that while age, education, attitudes and user-situational variables are related to ATM use, only technology experience, perceived user comfort and control are determinants of ATM use among this population. Bansal and Singh (2018) found that demographic factors such as educational background and age of the customers moderate the relationship of customer satisfaction and service quality of ATMs. Sawalqa (2012) found that the demographic characteristics of users make no difference in the financial needs satisfaction of ATMs users. A study by Molla (2017) showed higher usage of ATM-banking with educational level of bachelor degree and above and for male participants, similar to the current study. Edemivwaye (2015) found that there was no significant difference in customers' preferences for e-banking services across different educational qualifications.

## **4.5 Chapter Summary**

This chapter has presented the results of the study in line with the objectives. The results of the study indicated that perceived usefulness, easy of use, facilitating variables and social factors has significant effect on the use of ATMs for depositing money. Age and gender were also found to have significant effect. The chapter also discussed the results in light of existing literature. The next chapter will give a conclusion to the study, and also provide recommendations.

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter brings out the conclusion to the study. The conclusion will highlight the problem of the study, providing information on the background to the study. The chapter also highlights the research methodology that was used in carrying out the study to achieve the research objectives. The chapter explains the findings of the study in line with the objectives. The chapter will also give recommendations to the banks on the measures to increase the use of ATMs for cash depositing. Lastly, the chapter will give recommendations for future research studies.

#### **5.2 Conclusion**

Banking is no longer constrained by time or territory thanks to technological advancements. Consumers around the world have relatively easy access to their accounts, which is available 24 hours a day. ATMs are one of the most common delivery methods in e banking since they allow clients to bank Anywhere, Anytime. Despite ABSA bank providing ATMs for depositing money, long queues at banks persist during working hours, customers queuing inside the bank to deposit money to a teller at the counter, and this affect the efficiency and effectiveness of service delivery. Understanding the factors influencing consumers' attitudes towards the use of ATM cash deposit services is crucial. Therefore, this study aimed at assessing the factors influencing adoption of ATM cash deposit services. To achieve the objectives, the study conducted a survey of 397 ABSA bank customers. The study used a mixed method research, and employed descriptive and causal research designs. Descriptive statistics, logistic regression and Fisher exact test were used for data analysis.

From the results; perceived usefulness was found to have a significant positive effect on using ATMs to deposit money, customers who perceive ATMs to be beneficial are more likely to use the ATMs for depositing money. Not Easy to Use had a significant negative effect on using ATMs. Customers who find ATMs not easy to use are less likely to use the ATMs for depositing money. Concerning the facilitating conditions; the study found that lack of knowledge on the use of ATM was negatively affecting the use of ATMs for depositing money; lack of awareness had a significant negative effect on using the ATMs; Not Trusting ATMs

was found to have a significant negative effect on using ATMs. ATMs not secure and safe was found to have a significant negative effect on using ATMs. Not reliable had no significant effect. ATMs bound to Errors was found to have a significant negative effect on using AMTs, and No bank instructors was not statistically significant. Concerning the effect of social factors; having a family member using ATM to deposit money had no statistically significant effect on using the ATM. However, the study found that having friends using the ATM to deposit money was found to have a significant positive effect on using ATMs. Age was found to have a significant effect, a customer with 40 years and below is less likely to use ATM for depositing money. Being male had a significant positive effect on using ATMs, male bank customers are more likely to use the ATMs for depositing money. The study therefore achieved all the objectives and gave the following recommendations to the bank.

### **5.3 Recommendations**

1. Banks should provide adequate knowledge to customers on how to use ATMs for depositing money. This can be done by putting a bank teller at the ATMs to guide customers when depositing.
2. Banks should provide adequate security and guarantee the safety of customers when depositing money outside at the ATMs.
3. Banks need to provide adequate information to the customers on safety and reliability of ATMs when depositing money.
4. Bank of Zambia to be regularly changing the quality of notes in circulation.

### **5.4 Recommendations for Future Studies**

A new research study can be developed to focus on online and mobile banking challenges faced by bank customers.

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## **APPENDICES**

### **Appendix 1: Research Questionnaire**

Dear Respondent,

#### **RE: EXAMINING THE FACTORS AFFECTING THE ADOPTION OF ATM CASH DEPOSIT SERVICES. A CASE STUDY OF ABSA ZAMBIA, LUSAKA.**

Reference is made to the above subject matter in which I am requesting data from you. This is in partial fulfilment of the requirement for the Master's degree in Business Administration at the University of Zambia.

There is low usage of ATM machines for depositing money, and this study aims at finding the factors causing low usage. Your personal identification either by name or residential address is not required. The information provided in this questionnaire will be used strictly for academic purposes and will ensure that the findings are treated with complete confidentiality and be used for the sole intended purpose. The findings will be shared with ABSA Bank management to improve usage of ATM machines for depositing cash, to help reduce work pressure of Tellers and improve bank performance. The findings of this study will never be associated with any single person, hence, feel free to respond to all the questions in sincerity. Your participation is voluntary, your time and cooperation is highly appreciated.

Yours sincerely,

**MWILA KATUTA – STUDENT**

**For more information or clarification please call: +260977880346**

#### **SECTION A: DEMOGRAPHIC CHARACTERISTICS**

##### 1. Gender

1. Male            [     ]
2. Female        [     ]

##### 2. Age

1. 18-30 years [ ]
2. 31-39 years [ ]
3. 40-50 years [ ]
4. Above 50 years [ ]

3. Marital status

1. Single [ ]
2. Married [ ]
3. Widowed [ ]
4. Divorced [ ]
5. Separated [ ]

4. Education background

1. Grade 12 certificate [ ]
2. Tertiary Certificate [ ]
3. Diploma [ ]
4. Degree [ ]
5. Master's degree [ ]
6. Doctorate degree [ ]

5. Banking with ABSA?

1. Yes [ ]
2. No [ ]

6. If yes to Q5 above, for how long have you been banking with ABSA bank?

1. Less than a year [ ]
2. 1-5 years [ ]
3. 6-10 years [ ]
4. Above 10 years [ ]

7. Employment status

1. Formal employment [ ]
2. Informal employment [ ]
3. Not in employment [ ]
4. Student [ ]

**Section B: Adoption and Use of AMTs**

8. Have you used the ATM machine before for depositing money?

1. Yes [      ]

2. No [      ]

9. If yes to Q8 above, how often do you use the ATM machine for depositing money?

1. Very often [      ]

2. Often [      ]

3. Rare [      ]

10. If you have never used ATM for depositing money, do you have intentions to use ATM for depositing money in future?

1. Yes [      ]

2. No [      ]

**Indicate your level of agreeing or disagreeing to the following statements.**

11. There's enough information provided by ABSA on how to use the ATM machines for depositing money.

1. Agree [      ]

2. Neither agree nor disagree [      ]

3. Disagree [      ]

12. The ABSA ATM machines are secure and safe for depositing money.

1. Agree [      ]

2. Neither agree nor disagree [      ]

3. Disagree [      ]

13. The ABSA ATM machines are easy to use for depositing money.

1. Agree [      ]

2. Neither agree nor disagree [      ]

3. Disagree [      ]

14. The ABSA ATM machines are accurate when depositing money.

1. Agree [      ]

2. Neither agree nor disagree [      ]

3. Disagree [      ]

15. The ABSA ATM machines are efficient for depositing money.

1. Agree [      ]

2. Neither agree nor disagree [      ]

3. Disagree [ ]

16. The ABSA ATM machines are reliable for depositing money.

1. Agree [ ]

2. Neither agree nor disagree [ ]

3. Disagree [ ]

17. What system of depositing money are you comfortable with?

1. To a teller on the counter [ ]

2. On ATM machine [ ]

18. Do you think depositing money on the ATM has benefits for you?

1. Very beneficial [ ]

2. Beneficial [ ]

3. Partially beneficial [ ]

4. Not beneficial [ ]

19. Which of the following factors do you think to be the cause for customers not using ABSA ATM machines for depositing money?

	1. Yes	2. No
1. Lack of knowledge on how to deposit	[ ]	[ ]
2. Lack of awareness	[ ]	[ ]
3. ATMs are not ease to use	[ ]	[ ]
4. Not trusting the machines	[ ]	[ ]
5. Machines are not secure and safe	[ ]	[ ]
6. Machines are not reliable	[ ]	[ ]
7. Machines are bound to errors	[ ]	[ ]
8. There are no bank instructors	[ ]	[ ]

20. Is any of your family members using ATM for depositing cash?

1. Yes [ ]

2. No [ ]

3. Not sure [ ]

21. Is any of your friends using ATM for depositing cash?

1. Yes [ ]

2. No [ ]

3. Not sure [ ]

22. Which of the following measures do you think the bank should put in place to ensure that customers increase using ATM for cash depositing?

1. Increase awareness [ ]

2. Provide more knowledge on how to use [     ]
3. Grant safety of funds [     ]
4. Provide good security [     ]
5. Ensure reliability [     ]
6. Grant accuracy of the machines [     ]
7. Provide guidance [     ]

**THANK YOU**

## Appendix 2: Interview Guide

### Interview for Management

#### Qualitative data

1. From the banks perspective, what are the factors affecting the use of ATMs for depositing money by the customers?

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.....

2. Do social factors have an influence on consumers' intentions to adopt ATMs for depositing money?

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3. Are the ATMs ease to use when depositing money in the account?

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.....

4. How useful are the ATMs for depositing money to bank customers?

.....  
.....  
.....  
.....

5. Do customers have intentions to use ATMs for depositing money?

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6. What measures can be done to increase the use of ATMs for depositing money?

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