EFFECT ATM SERVICE TO FINANCIAL SERVICES DELIVERY

CASE OF I&M BANK PLC

PERIOD: 2020-2023

By

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DECLARATION

I hereby declare that this thesis entitled **"EFFECT ATM SERVICE TO FINANCIAL SERVICES DELIVERY, CASE OF I&M BANK PLC, PERIOD: 2020-2023"** is my original work and has not been presented for a Degree or any other academic award in any University or in any Institution of higher Learning.

NGIRUWONSANGA Cleophas

Signature ……..

Date……./……/2024

APPROVAL

This is to certify that this work entitled **"EFFECT ATM SERVICE TO FINANCIAL SERVICES DELIVERY, CASE OF I&M BANK PLC, PERIOD: 2020-2023"** is a study carried out by **NGIRUWONSANGA Cleophas** under my supervision.

SUPERVISOR: Dr. Roger MUGABE

Date ……/……/2024

Signature ……..

DEDICATION

To my parents and all friends and relatives.

To my all colleagues.

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First and foremost, I want to thank the Almighty God who helped me since I was born up to date.

I would like first of all to extend my gratitude to the mind behind the establishment of a great institution of high learning ULK, here in Professor Dr RWIGAMBA BALINDA the Founder and President of ULK.

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LIST OF ABBREVIATIONS, SYMBOLS AND ACRONYMS

ATM **:** Automated Teller Machines

CBN **:** Central Bank of Nigeria

ICT **:** Information Communication Technology

IDT **:** Innovation Diffusion Theory

PIN **:** Personal Identification Number

PLC **:** Public Limited Company

SPSS **:** Statistical Package for the Social Sciences

TAM **:** Technology Acceptance Model

ULK **:** Université Libre de Kigali

UTAUT **:** Unified Theory of Acceptance and Use of Technology

WWW : World Wide Web

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ABSTRACT

To investigate the "effect ATM service to financial services delivery, case of I&M Bank PLC, period: 2020-2023" the following specific objectives were formulated: to examine services offered by ATM at I&M BANK PLC, to examine the effectiveness of ATM services offered by I&M BANK PLC, to study the problems faced by customers while using ATM services offered by I&M BANK PLC, to analyze the effect ATM service to financial services delivery of I&M BANK PLC and to identify the relationship between ATM service and financial services delivery of I&M BANK PLC. The total population of 1520 customers and staff selected two sectors in in Nyarugenge District have been trained by the ICT literacy. The sample size was 317 respondents which covers the customers and staff selected two sectors in in Nyarugenge District have been trained by the ICT literacy. The researcher concludes that the Respondent's perception of cash/Cheque deposit of financial services delivery of I&M BANK PLC indicated that the respondents strongly agreed ATM Cash Deposits with a mean score of 3.9500 and standard deviation of 1.57196. Respondents also strongly agreed that Mobile Banking Deposits (Through Partners) with a mean score of 4.1000 and standard deviation of 1.16529. Respondents also strongly agreed that branch cheque deposits with a mean score of 4.2500 and standard deviation of 0.91047. Respondents also strongly agreed that electronic payment options with a mean score of 4.4000 and standard deviation of 0.75394, &M Bank supports agency banking where customers can withdraw cash at authorized banking agents. This extends banking services to regions with fewer bank branches. Customers can withdraw smaller amounts at agent locations, which are typically more accessible in remote areas. ATMs allow customers to withdraw cash at any time, providing flexibility beyond traditional banking hours and Customers who receive salaries, pensions, or business payments into their I&M Bank accounts can easily access these funds through cash withdrawals.

Key Words: *ATM service, financial services delivery, I&M BANK PLC*

CHAPTER ONE: GENERAL INTRODUCTION

This chapter provides the conceptual aspects of the research on the effect of automatic teller machine to financial service delivery (2020-2023), This section of general introduction highlights the background of the study, problem statement, objectives of the study, research questions, scope of the study, significance of study and structure of the study.

1.1. Background of the study

In today's business world, ICT has become a very critical aspect of today's banking and financial services delivery in the world at large and Ethiopia in particular. The Mexico banking industry have engaged the use of information communication technology for effective and efficient means of conducting financial transactions now named as the Electronic Banking System. Technology gives the cutting edge to come out with customer centric products and delivery channels in time (Devandhiran & Sreehari 2019). Automated Teller Machine is the first well-known machines to provide electronic access to customers. According to Sultan & Kemal (2019), with advent of Automated Teller Machines (ATM), banks are able to serve customers outside the banking hall. It is designed to perform the most important function of bank and operated by plastic card. The plastic card is replacing cheque, personal attendance of the customer, banking hour's restrictions and paper-based verification. Also allow you to do a number of banking functions such as; withdrawing cash, making balance inquiries and transferring money from account to account.

According to (Yasuharu, 2003), implementation of information technology and communication networking has brought revolution in the functioning of the banks and the financial institutions. It is argued that dramatic structural changes are in store for financial services industry as a result of the Internet revolution; others see a continuation of trends already under way. Arguably, the most revolutionary electronic innovation in this country and the world over has been the Automated Teller Machine (ATM) and Ghana is not an exception. Most banks currently operate ATMs in Ghana. The ATM has been the most successful delivery medium for consumer / retail banking in this country; As (Abor, 2004) puts it, the ATM is the most widely used electronic delivery channel for banks in Ghana. Customers consider the ATM as an important service and this influences their choice of banks, and banks that have delayed the implementation of their ATM systems, have suffered irreparably to this service. (Jordan and Katz, 1999) stated that the

introduction of the ATM has made the distribution of banks services more efficient. ATMs have been able to entrench the "one-branch" philosophy in this country by being networked, so people do not necessarily have to go to their branch to do some banking. Before ATMs, withdrawals, inquiries, internal funds transfers, mini statement inquiry, among others, all required the face-to-face interaction between the consumer and the bank teller. Networking ATMs has therefore increased banking services to customers.

Information and communication technology (ICT) has increasingly stimulated expansion of the banking networks and range of the offered services during recent years. All banking services, such as electronic payments, loans, deposits, or securities have become heavily dependable on information and telecommunication technology (Adewoye, (2013). This is the main reason why banks are the biggest users of modern technology equipment. Due to the complexity of banking services, every opportunity to speed up their service delivery or to make them more accessible for customers is very well welcomed by banks. However with improvements of the quality of services, the important question appears if this process can provide the economic values for banks? Unfortunately, not every increase in the customers' satisfaction transfers into the higher bank profits, especially in the case of very expensive investments in technology like automated teller machines (ATMs). Although every banking operation requires some technology applications, researchers vary on the subject of the relationship between the level of employed automated teller machines, and the value of the banking efficiency increase (see for example, Adeniran (2014). All researchers agree on the importance of ATMs for the further developments of the banking industry, but some of them have found lack of proportionality between the increase in the scale of technology utilization and the increase in banks profitability. Okoro (2014), for example, concludes that the automated teller machine (ATM), Point of Sale (PoS) terminals and Internet services are the major instruments used by the customers of the deposit money banks in Rwanda. Following the introduction of electronic banking and internet automated teller machines (ATMs) which are the initial cornerstones of electronic finance, the increased adoption and penetration of mobile banking and Internet banking has added a new distribution channel to retail banking: Internet/Online-banking. Rwanda historically operated a cash-driven economy particularly in the consumer sector; however, the economy has witnessed improvements over the years with the introduction electronic payment systems. This current state of sophistication in electronic banking system is comparable to other economies at the same level

of development and has increased the move to cashless economy. The ATM payment system which, according to Oboh (2005), was first introduced into the Rwandan financial service sector in the late 1980s by Societe Generel Bank, First Bank and Equity Bank has in no small measure enhanced the electronic payment system. In addition, the Central Bank of Nigeria (CBN) has recently engaged in series of reformations aimed at both making the Rwandan financial system formidable and enhancing the overall economic service delivery of Rwanda so as to place it on the right path in tune with global trends. One of the major reforms is the Cashless Policy.

Service delivery is related to the concepts of value, quality, complaining behavior and loyalty of customers to an organizations products/services. It is also a measure of how products and services supplied by a company meet customer expectation. Considering the availability alternatives and growing competition among banks, there is a need to know how their products and services are perceived and rated vis-a-vis others in the industry. Cengiz, (2010) noted that assessing the service delivery of an organizations products or services on the basis of how they are perceived by the customer is critical, i.e. whether perceptions are misplaced, lag behind current expectation or are very accurate, because understanding these perceptions provide a critical understanding of future customer behavior. This shows that financial service delivery is crucial for the success of any business. The question is then what factors contribute towards customer satisfaction. They want autonomy in transacting and so that they prefer self service delivery system (Khan, 2010). By automating services that were previously completed manually, ATMs can reduce the costs of servicing customer demands. These potential benefits are multiplied when banks share their ATMs, allowing depositors of banks to access their accounts through other bank‟s ATM (Mcandrews, 2003). More and more banks have adopted technology to deliver their services and this has resulted in: reduced costs, the creation of value added services for customers (Liao et al, 2002), the facilitation of their employees‟ jobs and ultimately, the provision of self service options for customers (Dabholker and Bagozzi, 2022).

These factors include costs involved in the use of ATM, and efficient functioning of ATM. Automated Teller Machine is a computerized telecommunications device that provides the customers of a financial institution with access to financial transactions in a public without the need for a human clerk or bank teller (Adelowo, 2010). ATM combines a computer terminal, record keeping system and cash vault in one unit, permitting customers to enter the banks record

keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a specific code into the computer terminal linked to the bank‟s computerized records 24-hours a day (Rose,1999) . ATMs save time and provide convenience to the customer due to the fact that the card holders don‟t need to go to bank branches to withdraw money, and the card holder is able to make shopping, travelling etc. ATMs‟ offer a 24 hour banking service to the bank customer like cash withdrawal, fund transfer, balance inquiry, card to card transfer, and bill payment, accept deposit etc. (Kumara, 2011).

This was done so as to enable customers have a 24 hour access to their money and hence improve financial service delivery then the banks eager to ease access for their customers. A fair distribution of ATMs in areas convenient to the customers does have an effect on satisfaction of customers due the convenience of bringing banking closer to the customers (www.atmgurus.com). However, despite the Bank‟s effort to improve access for its customers by increasing the number of machines, network failure, due to service breakdown from the country‟s sole telecommunications service provider, Ethiotelecom, and internet network problems, is the challenges faced by commercial banks in successful service delivery and distribution of ATM throughout the country (Gezahegn, 2015). To meet better market requirements in terms of speed and efficiency of services, banks have adopted an interactive electronic computerized system for clients: banking services via network of Automated Teller Machines (ATMs). According to Komal (2009) the study establishes that ATM services enhance operations and financial service deliveryin terms of flexibility of time, add value in terms of speedy handling of voluminous transactions which traditional services were unable to handle efficiently and expediently. The machine can enable customers to deposit and withdraw cash at more convenient time and places than during banking hours at branch (Muhammad, 2010). For the purpose of this study the researchers have chosen I&M BANK PLC as a case study in order to study the effect of ATM service to financial service delivery.

1.2. Problem statement

The use of ATM is a new way of accessing banking services necessitated by customers` business needs and is enabled by fast changing technology like Internet. Due to achievements brought about by increased utilization of Information and Communication Technology (ICT) in society,

the banking industry has introduced ATM. ATMs provide a new method of dispensing customer services which are expected to increase efficiency, financial service delivery, and enhance customer service delivery (Mboma, 2011).

ATMs often experience technical failures or require maintenance, leading to periods when they are out of service. This can disrupt access to cash and other services for customers, ATMs are susceptible to various security threats, including card skimming, ATM fraud, and physical tampering. Despite security measures, these vulnerabilities can be exploited by criminals, Maintaining an ATM network involves significant costs, including cash replenishment, routine maintenance, and repairs. These expenses can strain financial institution budgets, Many ATMs are designed to perform only basic transactions, such as cash withdrawals and balance inquiries. They may lack advanced features or capabilities available through other banking channels. ATMs are targeted by criminals for fraud and theft, including cash theft and card cloning. These incidents can compromise customer accounts and bank assets, in some areas, especially rural or underserved regions, ATMs may be scarce or poorly maintained, limiting access for certain populations, The design and interface of ATMs may not be user-friendly for all customers, including those with disabilities or limited technological proficiency. As digital and mobile banking technologies evolve, ATMs must adapt to remain relevant. Integration with new technologies and ensuring interoperability with digital platforms can be challenging (Mohammed and Dada, 2017).

Increased customer frustration, potential loss of business for financial institutions, and the need for costly repairs and maintenance, financial losses for customers and banks, potential legal issues, and erosion of trust in ATM services, Higher financial costs can lead to increased fees for customers or reduced investment in other banking services, Customers may need to visit bank branches or use digital platforms for more complex transactions, reducing the convenience of ATMs. Financial losses, increased security measures, and potential damage to the reputation of financial institutions, increased financial exclusion and limited access to essential banking services for underserved communities, Poor user experience can lead to difficulties in accessing services, increased customer dissatisfaction, and potential errors in transactions. Risk of obsolescence and potential failure to meet evolving customer expectations (Dilijonas, 2019).

In many parts of the world the majority of bank customers regularly use Automatic Teller Machines (ATMs) and today‟s western youth have not known a world without them. For them, the prevailing Percention of a cash machine is that of a tool providing a familiar functionality of basic financial information and dispensing cash. The technology is hidden from sight; the computer is invisible. It has taken approximately 30 years to establish ATMs as ubiquitous examples of public walk up-and-use devices (Hood, 1979). The adoption has not been straightforward, requiring trust in the technology and willingness to modify behavioural strategies in the very sensitive domain of personal finance. Financial institutions have played a major, sometime coercive, role in encouraging ATM adoption. The ATM flourishes within societies where time is precious and money readily available. This culture is composed of individuals, who have personal bank accounts and access to a wide range of technology. For these individuals, ATMs are convenient and reliable everyday artifacts: push a few buttons and get the money. As ATMs cross-new borders and pervade different cultures, it is imperative to understand the role of cultural characteristics on people‟s Percention of, attitudes towards, and action on the machine (Dabholka and Pratibha, 1994). In a nutshell, ATM is very important worldwide in that it facilitates Provision of mini bank statement, Cash withdrawal, Cash deposit, Transfer of funds from one account to another, Balance enquiry, Purchase of some utilities like electricity and fuel, Bill payments, and no need to carry a large amount of cash (Pandian and Sharma, 2012). Therefore, this research is conducted to carry out the effect ATM service to financial services delivery, a case study of I&M BANK PLC from a period of 2020 to 2023.

1.3. Objectives of the study

The objectives of this study are categorized into two: General objective and specific objectives.

1.3.1. General objective

The general objective is to establish the effect ATM service to financial services delivery in Rwanda.

1.3.2. Specific objectives

This study has the following specific objectives:

1. To examine services offered by ATM at I&M BANK PLC
2. To examine the effectiveness of ATM services offered by I&M BANK PLC
3. To study the problems faced by customers while using ATM services offered by I&M BANK PLC
4. To analyze the effect ATM service to financial services delivery of I&M BANK PLC
5. To identify the relationship between ATM service and financial services delivery of I&M BANK PLC

1.4. Research questions

The following are the research questions which guided the researchers to carry out the study:

1. What are the services offered by ATM of I&M BANK PLC?
2. How effective are the services provided by ATM to account holders of I&M BANK PLC?
3. What are the problems faced by customers while using ATM services offered by I&M BANK PLC?
4. What is the effect ATM service to financial services delivery of I&M BANK PLC?
5. What is the relationship between ATM service and financial services delivery of I&M BANK PLC

1.5. Scope of the study

This research was carried out in Rwanda area, meaning that this research does not cover all areas of the country where I&M BANK PLC. Therefore, the researcher chooses this area with much information on the effect of automatic teller machine (ATMs) system in I&M BANK PLC.

1.5.1. Time scope

The research was covered 4 years from 2020–2023.

1.5.2. Domain scope

This study was taken place in the field of Money and banking.

1.5.3. Space scope

This study is limited to I&M BANK Head Office located in, Nyarugenge district in Kigali City.

1.6. Significance of the study

The outcomes of the study are of great important in many ways. It is important to several prospective users including the personal interest, Academic and scientific interest, the social interest.

1.6.1. Personal interest

This research has personal significance to the researcher helped to implement the theories leant in class and expend skills of research. Once the research was ended successfully, it is accomplishment of requirements to award the Master's Degree in Business Administration. After this research, researchers gained more knowledge about the ATM services and financial service delivery of financial institution in Rwanda, by putting into practice of all theories that the researcher have learned for all academic years.

1.6.2. Academic and scientific interest

The final document of dissertation was submitted to Kigali Independent University library for academic purpose. The students were used it either as reference to their future research or ordinary studies in area of research methodology.

1.6.3. Social interest

The study suggestions help to ensure effective use of ATM and will be addresses to I&M BANK PLC to other banking institutions in order help them be able to further meet customers' needs in using ATM service. It helped financial institutions to know their position on use of ATM in delivering financial services and the impact of ATM on financial services.

1.7. Definitions of key concepts

It is important to clarify certain terms from the beginning for better comprehension of content of our work, much as in management sciences a concept or a notion might have different meanings depending upon the context (Geary, 2022).

1.7.1. Automatic teller machine

An automated teller machine (ATM) is an electronic banking outlet, which allows customers to complete basic transactions within the aid of a branch representative or teller. Automatic Teller Machine, also referred to as ATM is a machine that gives out or receives cash deposits from account holders (Lewis, 2021).

ATM as previously highlighted is the abbreviation of Automated Teller Machine, and it is an electronic appliance that gives out or receives cash deposits from account holders. A smart card is used to initiate and complete a transaction with the machine. The smart card or simply put, ATM card as widely called, has electronic chip that identifies each customer with respect to corresponding accounts belonging to the customer (Odewale, 2022).

1.7.2 Financial service delivery

Financial services delivery refers to the process through which financial institutions provide a range of financial products and services to individuals, businesses, and other entities. This encompasses the various methods and channels used to offer services such as banking, investment, insurance, and financial planning. The goal of financial services delivery is to meet the financial needs of customers efficiently and effectively while ensuring accessibility, convenience, and security (Ogunlowore and Oladele, 2019).

1.8. Structure of the study

This study is divided into five (5) chapters. The first chapter is made of general introduction. It outlines Background of the study, Statement of the problem, objectives of the stud, Research questions, scope of the study and significance of the study. The second chapter presents the literature review. The third chapter related with the methodology of the study, third chapter show

the methodological approach that have been followed in order to address research objectives as well as data analysis and interpretation methods.

The fourth chapter shows findings and interpretation of findings that have been collected from my research field. The fifth chapter is concern with a summary of findings while drawing meaningful conclusions and suggestions.

CHAPTER 2: LITERATURE REVIEW

The literature review as part of this research provides the theoretical framework of the research topic related to the literature. It is important for a researcher to show how his research fits into the body of knowledge generated to the study. This chapter therefore, provides definitions of the important terms, describes the important concepts related to the research at the end, it highlights the literature related to the research objectives.

2.1 Conceptual Review

This section deals with the others information related to the topic of the study. In this part is purely based on the earlier research works done by others, which give us knowledge necessary for beginning our research work with confidence.

2.1.1. Innovation Diffusion Theory

This theory developed by Roger in 1983 explains individuals' intention to adopt a technology as a modality to perform a traditional activity. The critical factors that determine the adoption of innovation at the general level are the following: relative advantage, compatibility, complexity, trialability, and observability (Akindele & Rotimi, 2019). Innovation Diffusion Theory (IDT) seeks to explain the flow of innovations within an organization. According to Rogers (2013), various factors lead to the diffusion of innovations from one point to another. For instance, if there is a relative advantage of the innovation when compared to the already existing tools, the innovation was regarded as an improvement and may be adopted in the entire organization. Also, the compatibility of the innovations is crucial concerning the already existing tools and practices in that those are that are compatible are easily adopted. Innovations are also weighed on the ease of use, if they can be put on trial before being commenced in full and if their inputs and outputs can be measured with ease.

According to (IDT) theory, technological innovation is communicated through particular channels, over time, among the members of a social system. The stages through which a technological innovation passes are: knowledge (exposure to its existence, and understanding of its functions); persuasion (the forming of a favorable attitude to it); decision (commitment to its adoption); implementation (putting it to use); and confirmation (reinforcement based on positive

outcomes from it). Lundblad and Jennifer (2020) note that diffusions across the departments of the organization may not be probable due to the differences of operations.

The theory by Rogers (2003) has been touted as the most appropriate for any inquiry into the adoption of technology (Medlin, 2001; Parisot, 1995) or to be succinct, technological innovation. Rogers (2003, p.177) conceives of "adoption" as a decision to fully utilize an an innovation as as the most important decision and rejection is a decision to not use the innovation (p. 177). Diffusion according to Rogers (2003, p.5) entails the communication of an innovation using specific channels of communication over a period within a social system. Accordingly, the primary elements that attach to Rogers' diffusion of innovations theory include innovation, communication channels, time, and social systems.

2.1.2. Technology Acceptance Model (TAM)

The Technology Acceptance Model introduced by Davis et al. (2021) is one of the most cited theoretical frameworks to predict the acceptance and use of new information technology within organizations. This model derives from the theory of reasoned action. TAM hypothesizes that system use is directly determined by behavioral intention to use, which is in turn influenced by users' attitudes toward using the system and the perceived usefulness of the system. Attitudes and perceived usefulness are also affected by perceived ease of use.

Perceived usefulness was defined as the degree to which individuals believe that using a particular system would enhance their job profitability (Davis et al., 2019), whereas perceived ease of use relates to the degree to which individuals believe that using a particular system would require no effort (Davis, 2021). These two factors have been empirically justified as important factors determining the adoption and use of new information technology, including the adoption of Internet banking. These different theories contribute to an understanding of the factors influencing consumer adoption of internet banking. Figure 1 delineates the research model. It divides the factors which are hypothesized to influence the individual's decision to adopt internet banking into six main categories: convenience, security perception, prior internet knowledge, perceived risk, information on online banking, and demographics characteristics. The literature review which follows argues that many of these factors can be a priori regarded as pertinent to the process of online banking adoption. The model we developed proposed that online banking

adoption can be modeled with the variables derived from literature and five variables referring to prior internet knowledge, convenience, security perception, perceived risk, information on online banking, and demographic characteristics. (Kennedy 2022)

There are two types of ATMs: Exterior ATMs and (2) Interior ATMs. Exterior ATMs are located in various places like shopping centers, airport, etc., these Exterior ATM can also accept ATM cards of other banks, while the interior ATMs are located within the bank premises and these ones accept only ATM card of its bank .ATMs which are directly interactive with the bank's computer are known as online ATMs and others are known as offline TMs .Online ATMs require the support of effective telecommunication facility. (Peterson ,2021).

Technology Acceptance Theory was first proposed by Davis, Bagozzi and Warshaw (2014) to examine the conceptual model of the intention of user or the degree to which information system or new technology has been done. Technology Acceptance Theory (TAT) is designed on the basis of perceived usefulness and ease of use of the new technology. Perceived usefulness of technology suggests the personal conviction to better the degree of work performed by a specific new technology or information system. Perceived ease of use of new technology implies how easy a person can learn the way to use or run a new technology or information system (Scott & Davis, 2015). The TAT model has stressed on the way perceived ease of use of new technology directly influences perceived usefulness of the technology. External variables such as environment factors surrounding an individual intervene in influencing perceived ease of use and usefulness. Hence, Technology Acceptance Theory has a basis in both crucial perceptive factors that is perceived usefulness and perceived ease of use. Technology Acceptance Theory is applied vastly on the researches involving IT. Liu and Arnett (2000) analyzed the important variables to come up with a successful website which has its basis on TAT theory. Technology Acceptance theory is a key theory that underpins the current study on how e-banking affects the way listed financial institutions in Rwanda perform.

2.1.3. Unified Theory of Acceptance and Use of Technology (UTAUT)

The UTAUT1 developed by Venkatesh, (2023) conceives that behavioral intention to use a technology is determined by originally four constructs of service delivery expectancy, effort expectancy, social influence, and facilitating conditions. However, due to theory growth, hedonic motivation, price value, and habit moderated by age, gender, and experience were added to UTAUT1 to form UTAUT2 Venkatesh, (2020). The new UTAUT2 assumes that service delivery expectancy, effort expectancy, and social influence are theorized to influence behavioral intention to use a technology, whereas the behavioral intention and facilitating conditions determine technology use combined with hedonic motivation, price value, and habit moderated by age, gender, and experience. The UTAUT show factors relevant for the consumer market that influence the behavioural intention to adopt and use new technology by consumers.

In relation to this study ICT integration in Rwandan Government ‘s ICT centers will enhance service delivery efficiency, as UTAUT shows that influence in behavior toward using of technology with an aim of achieving efficiency in service delivery will encourage firms to install ICT infrastructure to help them run their activities efficiently. The service delivery expectancy is first priority in every firm which is dependent on insitutions staff effort toward achievement of goals. Integration of ICT enhances service delivery almost by double digit due to high speed of processing data compared to the manual data entry. (Pandey, 2022).

The growth of an e-commerce sector, emerging digital technologies, such as big data, Artificial Intelligence, cloud computing and robotics, drive the implementation of new technologies in organisations (Verhoef et al., 2021). The advances in information communication technology (ICT) have dramatically changed the way organizations conduct business. The application of the technologies in the workplace has redefined inter- and intra-organizational communication has streamlined business processes to ensure benefits, such as higher productivity, the wellbeing of employees and the satisfaction of consumers (Papagiannidis & Marikyan, 2020). To achieve such benefits, companies make massive spending on technologies. However, investment in ICT implementation does not guarantee successful deployment and often bring low returns (Davis, 1989; Venkatesh et al., 2003). The results of market research suggest that the success rate of new technology adoption in organisations, whereby technologies bring expected return on investment (i.e. improved performance), is below 30 percent. The number is less optimistic if consider the

companies, who could improve performance, but could not sustain the improvements in the long-term (De la Boutetière, Montagner & Reich, 2018). Given the consequences of technology adoption on organisations' performance and a cost-revenue structure, the technology utilisation-acceptance gap remains one of the major areas of research in the IS literature.

Research community accelerated its interest towards technology acceptance in the private and organisational contexts almost three decades ago (Davis, 1989; Compeau & Higgins, 1995; Goodhue, 1995; Leonard-Barton & Deschamps, 1988). By 2000, technology acceptance research had resulted in a substantial body of evidence on user behaviour related to technology adoption (Hu et al., 1999). Numerous models/theories had been introduced to understand the acceptance of the technology, which cumulatively explained 40% of the variance in technology use intention (Davis, 1989; Davis, Bagozzi & Warshaw, 1989; Taylor & Todd, 1995; Venkatesh & Davis, 2000). The models had roots in different disciplines, which limited the applications of these theories to certain contexts. For example, the Theory of Planned Behaviour and the Theory of Reasoned Action offer a psychological perspective on human behaviour by examining the variables, such as perceived behavioural control, attitude and subjective norms (Ajzen, 2011). The theories provide generic insights into individuals' attitudinal underpinnings, which make them applicable to a wide range of research contexts, not limited to information system management. In contrast, Diffusion of Innovation Theory focuses on innovation-specific factors that determine users' behaviour when it comes to new technology adoption (Moore & Benbasat, 1991). In addition, the models had different perspectives, reflecting the type of variables in the model, such as subjective norm, motivational factors, attitudinal factors related to technology performance, social factors, experience and facilitating conditions (Venkatesh et al., 2003; Taylor & Todd, 1995; Ajzen, 2011; Thompson, Higgins & Howell, 1991; Davis, Bagozzi & Warshaw, 1992; Venkatesh & Speier, 1999). The selection of either of the models constrains research findings to particular scenarios and conditions. Therefore, a unified approach was needed to embrace variables reflecting different perspective and disciplines and increase the applications of the theory to different contexts (Venkatesh et al., 2003).

To provide a holistic understanding of technology acceptance, Venkatesh et al. (Venkatesh et al., 2003) set the objective for developing a unified theory of technology acceptance by integrating key constructs predicting behavioural intention and use. To fulfil this objective, the seminal IS

acceptance literature was reviewed to draw up theoretical and contextual similarities and differences among technology acceptance theories originating from three research streams – i.e. social psychology, IS management and behavioural psychology (see (Venkatesh et al., 2003)). Given that the theories stem from different disciplines, they cast diverse perspectives on technology acceptance and adoption. The socio-psychological perspective on research on individual behaviour was represented by the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and Social Cognitive Theory (SCT). Based on TRA and TPB, individuals' behaviour is measured by the effect of attitude toward behaviour, subjective norm and perceived behavioural control on behavioural intention (Ajzen, 2011). The theories are used in IS management to explore the role of a perceived difficulty in performing the task, the effect of group norms and attitude on accepting technology (Karahanna, Straub & Chervany, 1999; Zhang & Mao, 2020). TRA contributed greatly to IS acceptance theories, by providing a theoretical framework that explained human behaviour (Ajzen, 2011; Davis, 1989). SCT is based on the assumption that behavioural, cognitive and environmental factors (i.e. outcome expectations-performance, outcome expectations-personal, self-efficacy, affect and anxiety) have an interactive effect on individuals' behaviour (Bandura, 2001). The theory has been used to investigate human-computer interaction (Compeau & Higgins, 1995; Compeau, Higgins & Huff, 1999). The acceptance of technology from the vantage point of IS management was largely explained by Technology Acceptance Model (TAM), combined TAM and TPB model (C-TAM-TPB), Innovation Diffusion Theory (IDT) and the model of PC utilisation (MPCU). While TAM and C-TAM-TPB stress the importance of cognitive response to IS features in predicting behaviour (Venkatesh et al., 2003; Taylor & Todd, 1995), IDT focuses on system characteristics and properties in determining the adoption of innovation (e.g. relative advantage, complexity, compatibility, image) (Moore & Benbasat, 1991). MPCU has very narrow implications, as the model encompasses the factors underpinning the utilisation of personal computers (i.e. job fit, complexity, long-term consequences, affect towards use, facilitating conditions and social factors) (Thompson, Higgins & Howell, 1991), unlike other theories examining IS and innovation adoption (Venkatesh et al., 2003; Taylor & Todd, 1995; Moore & Benbasat, 1991). The behavioural psychology perspective on technology acceptance was represented by the Motivational Model (MM), suggesting that technology adoption and use behaviour can be explored through user motivations (Davis, Bagozzi & Warshaw, 1992; Venkatesh & Speier,

1999). Users tend to evaluate the likelihood of engaging in behaviour by the degree to which behaviour stimulates instrumental rewards (extrinsic motives) and/or internal reinforcement, such as enjoyment, satisfaction and fun (intrinsic motives) (Davis, Bagozzi & Warshaw, 1992).

The review of the above theories led Venkatesh to identify limitations, which in turn triggered the need to develop the Unified Theory of Acceptance and Use of Technology. The primary limitation was that the literature had not empirically tested and compared dominant technology acceptance models, which left room for speculation on the predictive power of the constructs of each theory. The studies examining technology use behaviour had mainly focused on simple systems (e.g. PC) and overlooked the use of more complex technologies (Venkatesh et al., 2003). The focus on one technology constrains the explanatory power of theories, as individuals' experiences, purchase decisions and use cases vary depending on IT systems and contexts (Brown, Venkatesh & Hoehle, 2015). For example, the motivations of consumers purchasing entertainment technology are not similar to the needs of employees driving the usage of enterprise management systems. The latter technology has a strong utilitarian value and is predominantly used in mandatory settings. Also, there were methodological limitations identified in prior literature. Most studies had used a cross-sectional approach, by measuring variables at pre- or post-acceptance stages (e.g. (Venkatesh et al., 2003; Taylor & Todd, 1995)), although some constructs (e.g. experience) needed to be examined over time. The limitations suggested using a longitudinal approach to fully understand the dynamics of technology acceptance and use. Finally, previous studies had focused on the technology acceptance in a voluntary context (when society does not have an effect on technology use), which put a constraint on the generalisability of the findings. Therefore, to ensure the wider implication of the models, technology acceptance was investigated both in mandatory and voluntary settings. The empirical comparison of the theories enabled authors to develop a unified acceptance model, which embraced and reflected all key acceptance factors (Venkatesh et al., 2003).

2.2 Theoretical Exposition

Theories which the researchers use to explain the existence of a research problem and used as bases in analyzing relationships between variables can be generated from reference books on

theory or from related studies. The researchers, therefore, must have already read adequate literature at the start of the research activities.

2.2.1 Cash Withdrawal to financial service delivery

Information and Communication Technology (ICT) has become a very critical aspect of today's banking and financial services delivery in the world at large and Rwanda in particular. The Rwandan banking industry have engaged the use of ICT as a platform for effective and efficient means of conducting financial transactions now branded as the Electronic Banking System. In a recent research, Onyediemekwu and Oruan (2013) described Electronic Banking System as a technological banking platform that enable customers to assess banking services through intelligent electronic banking devices, such as Computers (Internet Banking), Personal Data Assistants (PDAs), Mobile phones (Mobile Banking and Mobile Money), Point of Sales Terminal (PoS), and Automated Teller Machines (ATMs). Though the emergence of electronic banking service can be said to still be in an embryonic stage in the country, however one of such electronic services that has proven successful in Rwanda in recent time is the Automated Teller Machine (ATM), although not without its own hitches; it tends to be the most popular and the most widely accepted means of electronic banking service in the country, this can be traced partly to the fact that ATMs were the first well-known machines to provide electronic access for bank customers in Rwanda. And with the dawn of ATM in Rwanda, banks' customers now have access to financial transaction outside the banking hall such as public place without the need for a cashier or bank teller.

ATM is designed to perform the most important functions of banks staff through magnetic-stripe plastic card known as the ATM card, which is usually issued by the financial institution. The card contains a unique card number and some security information such as serial number, an expiration date, etc. The card is thus replacing Cheque, personal attendance of the customer, banking hour's restrictions and as well as paper based verification (Sultan and Komal, 2009). ATMs allow customers to perform a number of banking transactions such as withdrawing cash from one's account, making balance enquiries, transferring funds from one account to another and effecting payment of bills, usually done by imputing the four-digit Personal Identification Number (PIN) for the specific ATM card, known exclusively to the holder.

Also, ATM provides 24 hours service round the clock. A customer can withdraw cash up to a certain limit anytime of the day or night and not wait to be attended to by the bank staff or be affected by the instability of the banking system. The technology promotes faster service delivery, as it is a common phenomenon in Rwanda banking institution to see queues inside the banking hall, struggling and at times, quarrelling for their turns to make withdrawals and deposits. Such situation has promoted the common trend of bank robbery because of the raw cash lying bare on the banking hall. Today, with the introduction of ATMs in Rwanda, the story has changed. Rwandans now engage in faster service delivery in withdrawal of cash. In addition, ATM gives convenience to bank customers. Now, ATMs are located in convenient places such as the airport, railway stations, hotels, etc., and not necessarily at the bank premises. It reduces the workload of bank staff. Since the ATM is a "do it yourself" service, thus bank staff are relieved from grumbles and cries of customers. Also, ATM is very beneficial to travelers. They need not carry large amount of cash with them. They can withdraw cash from this innovation since traders need not carry the chunk of their money to market any longer to make purchases and also reduce the fear of armed robbers (Elizabeth, 2014).

However, as noted still by Elizabeth (2014), various customer-unfriendly issues have been raised over the introduction of ATM in the banking industry of Rwanda, and the complaints and cries of bank customers over the ills of the ATM cannot be overlooked anymore in light of its raging discomforts to customers. Thus, Muhammad (2009) sited in Jegede (2014) postulated that the high level of ATM fraud tend to have overshadowed the improvements which it has brought into the service delivery system of the Rwandan financial institutions. Similarly, Ihejiahi (2009) in Jegede (2014) also noted that despite the reality that the introduction of ATM terminals as a banking instrument was lauded by several customers as an alternative to the frustrating queues that characterized the country's banking hall, the situation today has changed drastically, it has become a source of worry to users and providers (banks) because the function it was meant to provide has been eroded seriously. The first issue that comes to the fore is the efficiency of the ATM in Rwanda. The machine has been notable for gross flopping. This is partly due to lack of in-depth technical knowledge of the handlers. For instance, it is common for the ATM to deduct money from one's account without actual payment to the owner and only to re-credit such account in later whiles. Another hitch of ATM is the system failure which may deter the machine from dispensing cash or from issuing payment slips after transaction.

2.2.2 Cash/Cheque deposit to financial service delivery

Commercial banks' investments in information technology (IT) in recent decades have helped streamline operations, increase competitiveness, and expand the number and quality of services offered (Khurshid et al., 2014). The automated teller machine (ATM) is arguably the world's most groundbreaking electronic innovation, and Zambia is no exception. In Zambia, ATMs are now operated by most banks. In this country, the ATM has been the most successful delivery method for retail/retail banking (Nuwagaba & Brighton 2014). ATMs according to Mwiya et al. (2017) are the most commonly used electronic delivery method for banks in Zambia. With the introduction of ATMs, the efficiency of banking services has improved. Through networking, ATMs in this country have been able to establish the "one-branch" mentality, allowing customers to complete their banking transactions without having to go to their branch (Nuwagaba and Brighton 2014).

The development of technology has had a huge impact on the spread of electronic banking. Thanks to technological advances, banking is no longer limited by time or space. Consumers around the world have relatively easy access to their accounts, available 24 hours a day, seven days a week. As a result, both banks and their customers benefit from e-banking (Karjaluoto et al., 2002). ATMs are one of the most commonly used delivery methods in e-banking because customers can bank anywhere and at any time. Customers have found that using an ATM is a very convenient way to conduct business. The banking sector has changed due to technological advancements. Banks have eagerly embraced this mode. The benefits of using an ATM have led to new levels of service quality and banks are offering their customers additional options. Khurshid et al. (2014) cited investment potential, cost savings, customer satisfaction and competitiveness as reasons for installing and expanding the existing ATM network. According to Karjaluoto et al. (2002), the ATM system speeds up transactions and saves customer's time

2.2.3 Transaction History to financial service delivery

The transaction history provided by ATMs is a crucial element in financial service delivery, offering valuable benefits in terms of financial management, security, and customer satisfaction. By providing detailed records of ATM transactions, financial institutions enhance transparency, support better financial decision-making, and improve financial efficiency. Addressing

challenges related to data security, system reliability, and user experience is essential for maximizing the positive impact of ATM transaction history on financial service delivery.

Quality Service delivery has raised a lot of interest in many research literatures because of complexities of defining it and measuring (Nielsen, 2002). Due to the difficulties, most commercial banks have put in place technology for delivering services to augment services which were traditionally provided by the bank personnel (Ontunya, 2006). Banking industry changes such as deregulation results, personal wealth rise and rapid global networking facilitated the coming into place of classy delivery systems service that such as telephone, online banking, not forgetting the automated teller machines (Lewis & Mitchell, 2004).

When coming up with a system for service delivery, organizations need to focus on what adds value to its products and how the staff should be to deliver the definitive customer experience. There are four elements to be considered. These are: the culture of services, service quality employee engagement, and customer satisfaction which were used as the explanatory variables for this study. Service Culture encompasses such elements as leadership qualities, work habits, organization norms, values and the mission of an organization. Culture includes prevailing principles upon which the top managers controls, maintains and puts in place processes that are social in nature and which gives value to customers because of services offered through such processes. The secret to long term success of organizations rendering services is a superior service delivery system which is anchored on a superior culture. On the other hand, employee engagement comprises of aspects such as their attitudes towards work, leadership attributes, human resource processes. The effectiveness of superior service delivery systems lies squarely on the level of employee engagement, the higher the better. This implies that employee engagement contributes to service delivery design and operationalization of excellent services. Quality of services is imbedded in strategies, processes and management structures. The design of processes and strategies are the basic elements of the service general model of management. There are couple measures of the quality of services and customer expectations, but the SERVQUAL model is effective. The model has 5 main components which are; reliability, assurance, tangibles, empathy and responsiveness. Businesses can survey their customers using these elements which enables them to quantitatively measure and manage the quality of the services they offer (Global, 2013). Assisting clients to realize their missions and helping them in

following up on their organizational purposes, has to be a foundation of any service provider. Customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectation. It is seen as a key performance indicator within business and is often part of a balanced scorecard. Day (2013) indicated among expectations, the ones that are about the cost, the product nature, and the efforts in obtaining benefits and lastly expectations of social values. Perceived product performance is considered as an important construct due to its ability to allow making comparisons with the expectations

2.2.4 ATM service on the Increased Accessibility

According to Arora and Ferrand, (2007), reveal that technology adoption especially, in banking systems has shown a great momentum and spread at an unbelievable pace across the world. Considering the importance of banking system‘s high presence and affordability, there is great potential of using this in agent banking for provision of banking services to unbanked community (Arora and Ferrand, 2007). However, technology systems have associated data and network security risks which make them susceptible for conducting financial transactions. Technology risks regarding information and data security based on applicable models of agent banking have been reported thus creating uncertainty to the clients (Owens, 2006). Owens, (2006), states that financial institutions are required to plan and act for long term development and prosperity of their agents for them to reach the targeted customers at a set population.

This requires close coordination and collaboration with agents; providing those opportunities to learn more, to become more efficient and; a fair pricing mechanism for the services provided by the agents (Arora and Ferrand, 2007). The studies done by National Bank of Rwanda (2014) for monetary policy and financial stability statement stated that access to finance refers to the possibility that individuals or enterprise have to access financial services including credit, deposit, payment, insurance and other risk management services. Securing access to finance for all, including the most vulnerable parts of the population and small entrepreneurs, accelerate inclusive growth. BNR, in its mandate of enhancing and maintaining a stable competitive and inclusive financial sector, has played an important role in facilitating the access to finance in Rwanda through the extension of the banking system and branchless banking solution in rural area and the use information technology.

In recent years, substantial research and development efforts have been made to enhance Automated Teller Machines (ATM) functionality and usefulness, offering a remarkable body of expertise, demonstrations, and models of best practice . ATMs are a particular category of devices that we need to study concerning accessibility and usability: the physical access to its hardware and the interaction with the graphical user interface (GUI), as both contribute to the overall user experience (UX). In general, ATMs are supporting a straightforward task that could be classified as of low complexity. Users need them to be simple, easy to learn and remember, resistant to errors, fast recovery from mistakes, efficient, and time-saving while providing an adequate safety level as expected when dealing with money. When it comes to users with temporary or permanent disabilities, it is essential to understand what kind of cognitive effort is required during the interaction and what abilities are necessary to have an effective interaction with ATM, which ends with achieving the supported tasks. Given that users interact with a GUI, identifying, recognizing, and making sense of labels and icons is essential for successful interaction, as the only available alternative is the audio option. Besides, a limited number of ATM stations are made available where height is adapted to serve customers on a wheelchair. Thus, for instance, as a case study, we have Mary. During her evening walk with her dog Nero, she stops by an ATM to quickly withdraw some money and discovers to have left her glasses at home as well as her earphone. There is no way to accomplish her task, and she gets frustrated by the lack of available alternatives has to go back home to try again next time. Equally unsatisfied is John, who has never been able to read and has to guess the meaning of labels on the screen while hoping to remember his identification number (PIN) in order to get the sum he needs to pay for his daily expenses. These simple case scenarios show how while ATMs may bring substantial benefits in terms of 24/7 access to money deposits and withdrawing, accessibility is far from being attained. More needs to be done if such devices have to provide a genuinely inclusive UX. In the following sections of this paper, we will report on relevant literature covering the peculiarities of ATMs and describe the different needs these systems should serve to provide usability and accessibility to users with temporary or permanent disabilities. We will then discuss the approach and method used to assess the kind of UX currently provided when interacting with available ATMs and the findings of our analysis. Finally, we will show their implications on future study and design of more inclusive systems to support a broader range of different needs

2.2.5 ATM service on the Convenience

ATM technologies are easier for the customers to withdraw or deposit money at any particular time and location. Unlike bank branches, they can be accessed irrespective of the time and days of the week. ATMs are also placed in places away from banking halls and nearer to people's work places and residences thus further increasing the convenience to transact (Daniel, 2022).

The Automated Teller Machine has changed people's lifestyles and how the banking industry. ATM machines enable depositors to withdraw cash at more convenient times and places than during banking hours at branches. In addition, by automating services that were previously completed manually, ATMs reduce the costs of servicing some depositor demands (Olatokun and Igbinedio, 2009).

An Automatic Teller Machine (ATM) allows a bank's customers to conduct their banking transactions. This could be performed transactions at any time during 24 hours. Before an ATM is placed in a public place, it typically undergoes extensive testing with both test money and the backend computer system that allows it to perform transactions. Bank customers also have come to expect high reliability of ATM machines, which dictates that ATM service providers should take a step to minimize machine and network failure. If ATMs go out of services, customer could be left without the ability to make transactions until the beginning of their bank's next time of opening hours. Indeed, ATM machine and network failure do have financial implications for the service providers, so that they should minimize cases of malfunction. It's important to therefore look at the prospects of fully functioning ATMs (Marshall and Heslop, 1988).

2.2.6 ATM service on the Reduced Banking Costs

Gabriel et al, (2015) noted that ATMs reduce the cost of servicing some customer demands for instance the bank will make savings as a result of a reduction in the number of tellers in the bank and reduction in overtime claims made by bank employees working late. Productivity by bank staff is increased in that the ATM takes up some of the functions that were previously only performed by the banker such as giving out cash, statements, taking cash/cheque deposits and hence the bank staff can now concentrate more in other areas that need impro vement and one such area is the cheque sorting and clearing department. Ongkasuwan and Tantichattanon (2002)

indicate that the main economic argument of Electronic Banking so far has been reduction of overhead costs of other channels such as branches, which require expensive buildings and a staff presence.

It also seems that the cost per transaction of ebanking often falls more rapidly than that of traditional banks once a critical mass of customers is achieved. The general consensus is that fixed costs of e-banking are much greater than variable costs, so the larger the customer base of a bank, the lower the cost per transaction would be. Whilst this implies that cost per transaction for smaller banks would in most cases be greater than those of larger banks, even in small banks it is seen as likely that the cost per transaction will be below that of other banking channels. Wise and Ali (2009) argued that many banks want to invest in ATMs to reduce branch cost since customers prefer to use them instead of a branch to transact business. The financial impact of ATMs is a marginal increase in fee income substantially offset by the cost of significant increases in the number of customer transactions.

ATM cards are speedy to replace dazing withdrawal machines as an accommodation way to get cash from banks (Tillya, 2013).Banks have ATM networks that help clients to get service simply and manage their accounts. Banks would obtain benefits such as reserve funds, efficacy, more noteworthy buyer inclusion, client satisfaction, and loyalty if they provide quality services through electronic managing account networks such as ATM (Al-Hawari and Ward, 2006). ATM has the advantage of transferring money from one account to another (Khan, 2010), in addition to the convenience of withdrawing money wherever the customer is located.

Client satisfaction is defined because the extent to which products/services performance matches a client's expectation (Kotler and Armstrong, 2010). It is the measure of how well products and services are ready to meet the client expectations. Client satisfaction is vital for a business success. In step with Habte and Mesfin (2019) client satisfaction is identified by a response that pertains to a specific focus and occurs at a specific time. It is directly connected to client's needs and well-known as a key influencing factor in the formation of client's future purchase intentions (Joshi, 2019). Satisfaction might be a person's feeling of pleasure or displeasure appointment resulting from comparing a product perceived performance in relevancy to his or her expectation (Kotler and Keller, 2006). Client's level of fulfillment is determined by his or her cumulative

experience at the purpose of contact with the service provider (Sureshchander et al., 2002). It depends on product and repaire quality.

Service quality is one among the fundamental achievement of variables that affect the attractiveness of service providers (Auka et al., 2013). A bank can separate itself from players by giving the most effective quality service. Facility provision has a very important influence on trade execution, client fulfillment, trustworthiness, increases reference of clients, productivity and upgrades company image (Arasli et al., 2005; Baumann et al., 2007; Gilmore and McMullan, 2009; Haque, 2009; Ho and Lin, 2010; Jamal and Anastasiadou, 2009; Ladhari, 2009; McCollin et al., 2011; Rodrigues et al., 2011; Pansiri and Mmereki, 2010; Prakash and Mohanty, 2013; Saraei and Amini, 2012).

Nowadays, clients are more reluctant to acknowledge inefficient services due to the truth that they advantage of the best services, which trigger their persistently developing desires. Exceptional service quality encourages the advancement and support of long-term links with clients, which is exceptionally vital within the competitive commerce setting of banking (Boshoff and Du Plessis, 2009; Camarero, 2007).

In Ethiopia, banks offer different services. From these, Automated teller machine was widely used by clients. Commercial Bank of Ethiopia (CBE) is the first bank in Ethiopia to introduce ATM service for local users (CBE, 2018). However, due to lack of appropriate infrastructure and related problems, ATM failed to raise client satisfaction.

Much as there are numerous empirical studies on clients' fulfillment with ATMs in different countries but, inadequate studies has been conducted concerning quality of ATM service on client satisfaction in Ethiopia. To the knowledge of researcher, the studies conducted by (Amsalu and Dehinenet, 2018; Anwar and Afework, 2017; Habte and Mesfin, 2019; Tewodros and Debela, 2019; Embiale, 2016) tried to investigate effects of ATM service on client satisfaction. Various literature revealed that customer satisfaction from computerized banking services has been done on issues related to web banking (Sintayehu, 2015). Therefore, this study attempted to investigate the effect of ATM service quality on customer satisfaction of the Commercial Bank of Ethiopia.

2.2.7 ATM service on the Financial Efficiency

Batiz-Lazo and Barrie (2005) study argued that Information Technology (IT) in banking (as measured by ATM) led to reduced operating costs, coupled with increased output (number of transactions) that resulted in greater efficiency. They concluded that the introduction of ATM was profitable for banks as well as customers. Paul (1998) noted in their study indicated that banks' adoption of ATM was overall beneficial for banks. The relationship between banking efficiency and the use of ATM (Automated Teller Machine) is a complex one. This is because the overall levels of efficiency and productivity do influence the organization overall success To implement e-banking services like ATM, organizations often have to re-engineer their business processes, integrate systems and promote agile working practices. These steps often result in greater efficiency and agility in organizations, (Ongkasuwan and Tantichattanon, 2002). In terms of reduction in cost of operation, Batiz-Lazo and Barrie (2005) study argued that Information Technology in banking (as measured by ATM) led to reduced operating costs, coupled with increased output (number of transactions) that resulted in greater efficiency. The Automated Teller Machine (ATM) was introduced as an instrument to aid banking operations. The introduction of the ATM by financial institutions changed the face of banking, but with some inherent challenges "ATM played a key role in any retail banks' efforts to use technology as a quality weapon to defeat competition". Automated Teller Machine provides a major role in offering convenience, speedy and round the clock services. Adeoti (2011) stressed that the use of ATM is safe and convenient. The ATM has made settlement of bills in banking system easy and saver. These benefits have resulted into phenomena growth in number of ATMs. However, the advantages of safety and convenience of ATM has unfortunately been lessened by the frauds that are perpetrated by 'plastic money'. The increase in number of customers using ATM has also increased the propensity to fraudulent practices by the ATMs fraud perpetrators. Ihejiahi cited in expressed concern about the lack of cooperation among banks in the fight to stem the incidence of ATM related frauds now plaguing the industry. He expressed that the silence among banks on ATM frauds makes it difficult for banks to share vital information that will help curb the menace. Muhammad postulates that the level of ATM fraud tend to have overshadowed the improvements which it has brought into the service delivery systems. The bank performance has focused on the key indicators of profitability, net interest margin (NIM), return on assets (ROA), (Flamini, 2009 Naceur and Omran, 2011). Saunders (1981) in a seminal paper present a

theoretical framework (dealership model) for the determinants of NIM. The authors find the interest margin depends on both the degree of market competition and interest rate risk. A decrease in NIM indicates an improved functioning of the banking system (Kasman, 2010). However, it may not always reflect improved efficiency, as it may reflect a reduction in bank taxation or higher loan default rate (Demirguc-Kunt and Huizinga, 1999). The bank performance has focused on the key indicators of profitability, net interest margin (NIM), return on assets (ROA), (Flamini, 2009, Naceur and Omran, 2011). The Formulas below shows how to measure the performance of commercial banks by calculations of ratios (NIM and ROA) and how automated teller machine transactions influence financial performance of commercial bank

In today's business world, globalization and international experience has become critically important. Banking industries can no longer get away with operating loosely connected groups of businesses that happen to be located around the world, but must strategically integrate their activities. The history of banking is that till the industrial error, banking services were rendered on manual basis characterized by; ledger keepers at back office, cashiers providing front desk service, ledger cards, cash registers among others. This is not only tedious, but also strenuous and slow besides providing inaccurate and unreliable information on a regular basis because of the human error. The limitations of manual banking highlighted above in most cases results to customer complaints, slowness in service provision, long queue and high operational costs etc. These limitations reduce reliability of financial services as regards to accuracy and completeness (Joseph and Stone, 2003).

Automated Teller Machines have been adopted and are still being adopted by banks. They offer considerable benefits to both banks and their depositors. The machines can enable depositors to withdraw cash at more convenient times and places than during banking hours at branches (Musiime and Biyaki, 2010). The present research examines the impact of automated teller machine and financial performance of commercial Banks. Automated Teller Machine (ATM) refers to a machine that acts as a bank teller by receiving and issuing money to and from the Automated Teller Machine account holders/ users. The evolution of Automated Teller Machine was not in isolation, rather as a result of the general global wave in the technological revolution (Kathleen, 2005).

This came due to the need to respond to the challenge of the multiple bulk of daily complex information that arises from among others; increase in competition, increased customer demand for both service provision as well as efficiency, expansion due to the increase in demand for services etc. Technology has tremendously stimulated expansion of the banking networks and range of the offered services during recent years. Efficient management is another most important factor behind the performance of all banks. Management efficiency of the bank includes its administrative ability to react in diverse circumstances. The term management efficiency involves the capability of management in generating business and maximizing profits. A focal term 'administrative proficiency', which essentially indicates the capacity of a bank to increase benefits or minimize costs under given situations. With increased competition in the Pakistani banking sector, the efficiency and effectiveness become the rule as banks constantly strive to improve the productivity of their employees. Presently the banks have extended their working hours. By the use of latest technology banks have improved their operating system. Management efficiency is a useful for the bank performance. Above all it is a qualitative factor which is applicable to institutions individually or can jointly use as an indicator of management efficiency. Expense ratio, earnings per employee, loan size and cost of unit per lent money is used as an alternate of the management efficiency. By the use of technology, they are able to provide quick service in a short time, so now they are attracting customers and compete with each other on the basis of quickly and comfortably. Although every banking operation requires some technology applications, researchers vary on the subject of the relationship between the level of employed automated teller machines, and the value of the banking efficiency increase. All researchers agree on the importance of ATMs for the further developments of the banking industry, but some of them have found lack of proportionality between the increased in the scale of technology utilization and the increase in banks profitability. Automated Teller Machine (ATM), also known as automated banking machine (ABM) or Cash Machine (Joseph, et al 2003). ATMs are placed not only near or inside the premises of banks, but also in locations such as shopping centers/malls, airports, grocery stores, petrol/gas stations, restaurants, or any place where large numbers of people may gather. ATM services includes function such as cash withdrawal, balance enquiry, bill payment, cash and cheque deposit, saving and credit account on a 24 hours' basis. According to Patricio and Cunha, (2003) Automated Teller Machines are devices used by bank customers to process account transactions.

Typically, a user inserts into the ATM a special plastic card that is encoded with information on a magnetic strip. The strip contains an identification code that is transmitted to the bank's central computer by modem. To prevent unauthorized transactions, a personal identification number (PIN) must also be used by the user using a keypad. The computer then permits the ATM to complete the transaction; most machines can dispense cash, accept deposits, transfer funds, and provide information on account balances. The study is of great importance for academics to compare the performances of various commercial banks and efforts should be made to solve the discrepancies in performances of commercial banks. Besides, the study is immense help for the management and staff of commercial banks who will gain insight into how their institutions can effectively manage their financial ratios by appropriate practices to increase their profits. In addition, by automating services that were previously completed manually, ATMs reduce the costs of servicing some depositors of demand. These potential benefits are multiplied when banks share their ATMs, allowing depositor of other banks access their account through a bank's Automated Teller Machine. (Kathleen, 2005) Financial segment in broad and banking segment in particular is one of the energetic elements for the economic development of the country. So it is important to control and regulate bank processes by an apex Bank to make sure customer's safety, strengthen and promote soundness, stability and efficiency of the banking system. This helps to decrease the hazards of banks becoming bankrupt. Banks are well-known as financial intermediaries their role is to sell its own obligations and to buy from others. All over the world the banking segment is known for the appropriation of multidimensional techniques occasionally with fluctuating degrees of achievement.

2.2.8 ATM service on the speed transaction

With regard to speed of the ATMs, Marshall and Heslop (1988) noted that one of the benefits to be reaped by customers while using ATMs is saving time, this is because there is no need to come to the bank and wait in a queue or filling some information in paper format every time when one wants to transact. ATMs are automated machines which are faster than human tellers in processing transactions. According to Komal (2009) explain in his study that ATM services enhance operations and customer satisfaction in terms of flexibility of time, add value in terms of speedy handling of voluminous transactions which traditional services were unable to handle

efficiently and appropriately. The machine can enable customers to deposit and withdraw cash at more convenient time and places than during banking hours at branch.

To achieve specific action objectives, strategy may involve assigning and using material and military resources at specific locations. The science of planning, financing, and leveraging all of a company's available resources for key business operations is known as strategy. According to Jhon A. Bryne, strategy is the pattern underlying the purpose and intentional allocation of resources, together with the organization's relationship with markets, competitors, and external factors. The aim of the strategy is to ensure that the company's main goals are achieved through effective organizational implementation by linking the company's strategic advantage with environmental issues. The essence of strategy is how to survive in an increasingly competitive world. How to positively shape consumer perceptions, how to stand out, what are the strengths and weaknesses of competitors, how to become specialized, how to become a master of one simple word in your head, how to have leadership that provides direction, and how to understand market realities. by coming first, then getting better.

Perceived quality, according to Lovelock and Wright (2002: 265-266), depends on longterm time, cognitive evaluation, and service delivery procedures. Service quality benefits increase over time, or over the long term, so service organizations must identify and effectively implement initiatives to deliver true service quality. Garvin (in Lovelock and Wirtz, 2004: 407) explains that the consumer's perspective on quality has five meanings depending on the situation, one of which is that quality begins with a guarantee that quality lies in the view of the person who perceives it. Because it is demandoriented and recognizes that different customers have different wants and needs, this point of view tends to be subjective. Help and support is provided. Employees' ability to carry out their jobs, which means providing service and support with 100% dedication and having the ability to address problems when service is sought, is a vital factor, claim Armistead and Clark (1999: 56–57).

The word "technology" comes from the Greek words "techne," which means competence or expertise and "logia," which denotes the systematic maintenance or handling of anything, according to Webster's Dictionary. Technology, according to Roger in Fatah (2008), is the creation of action tools that minimize motion while building causal relationships to get the desired effect. In Muntaqo (2017), Jacques Ellul explains technology as a comprehensive

strategy that makes sense and includes effective elements in every aspect of human activity. According to Muhasim, the engineering of human reason, mind, and intelligence which drives the expansion of knowledge, results in the development of digital technology. Various industries are starting to experience the expansion of digitalization. The expansion of the digital economy is one of them. According to Amir Hartman (Hartman, 2000), the term "digital economy" refers to a virtual environment where real business is conducted, value is created and traded, transactions occur and bank-by-bank connections are established.

Bank digitalization is the process of transforming banking institutions by utilizing digital technology and innovation to improve operational efficiency, expand service coverage, and provide a better customer experience. Bank digitalization involves the use of information technology, software application development, and robust network infrastructure to transform the way banks operate and interact with customers (Arner, 2017). Bank digitalization allows customers to conduct banking transactions, access financial information, manage accounts, and interact with banks through digital platforms that are easily accessible via mobile devices, computers, or the internet (Duan, 2020). The main goal of bank digitization is to improve operational efficiency. By automating banking processes, banks can reduce operational costs, speed up transaction processing times, and improve data accuracy. In addition, bank digitalization also aims to provide a better customer experience by providing fast, easy, and personalized services. Customers can access banking services anytime and anywhere, reduce dependence on the bank's physical location, and obtain real-time information about their financial condition. Bank digitalization provides significant benefits for various stakeholders, including the bank itself, customers, and society in general (PwC Indonesia, 2020). Some of the key benefits of bank digitization are ease of access, operational efficiency, faster and more responsive services, better customer experience, and financial inclusion.

Bank products are business ventures run by banks in the form of providing products, services and/or services to consumers. The following is the definition of product: Islam defines product service as a process that produces high-quality results, is practical to consume, effective, and can provide material, moral, and spiritual benefits to clients. Islam defines a "product" as something that is worthless or forbidden. The conventional economy and goods are interchangeable. Instead, things are replaceable and ethically effective in Islamic economics. Maintaining and

even improving the quality of products and services is always necessary. Do not let the product quality fall short of expectations. Rasulullah SAW in his youth always did business by maintaining the quality of his merchandise so that he won the trust of his clients. He once repaid a date trader who buried substandard dates at the bottom of his produce. Understanding production quality is a key driver of consumer happiness, and has a global dimension. The overall result of Islamic banking is a combination of the fundraising methods described and the solutions implemented by Islamic banks. Products that are used to meet the needs of society. Technically, the product in question has received a recommendation from Islamic scholars, or in this case approval has been given by the National Sharia Council of the Indonesian Ulema Council (DSM MUI) which has the authority to oversee various forms and products of Islamic banking. down to the operational level.

2.2.9 ATM service on the Expand Service easier

The recent trends to the customer favor self-service to manage their financial and the customers increased their banking awareness, and the most important electronic channels is the ATM, which is one of the more prevalent electronic channels, and most commonly used by customers where there is a easy to use for diverse banking services (Zuhair,2019). Traditionally, when a bank wanted to expand geographically it had to open new branches, thereby incurring high startup and maintenance costs. E-channels, such as the ATM, have made this unnecessary in many circumstances, now banks with a traditional customer base in one part of the country or world can attract customers from other parts, as most of the financial transactions do not require a physical presence near customers living/working place (Ongkasuwan and Tantichattanon, 2022).

2.2.10 ATM service on the Innovations in Financial Services

From the perspective of technology, innovation is viewed as a science-based process. Theoretically technological innovations are therefore expected to decrease the associated costs of doing business in banks and therefore lead to higher profits (Lyons, Chatman & Joyce, 2007). Technological innovations are therefore tools embraced by financial institutions to ensure services are rendered to customers effectively. Innovations within the Banking industry have the objective of fastening service delivery as well as widening the market share of particular

financial institutions (Jack & Suri, 2010). The adoption of technology is to therefore ensure that the large volume of transactions executed by Banks take the shortest time possible. For example, mobile banking, internet banking and ATM banking do enable customers access banking services throughout, this is likely to lead to higher earnings for the banks due to the reduced transaction costs and also reduced distribution channels (Stavins, 2011).

In the provision of service, the quality of service is the integrating factor between the organization and both internal and external customers. Delivery of quality service is a measure of how an organization manages processes and whether these processes and service delivery meet the needs of customers. In every service organization both employee attitudes and organizational antecedents affect the delivery of service and hence service quality has been seen as a factor that leads to customer responses and future outcomes of the organization such as profitability and accountability. (Alison M.2002) Innovation and quality are connected in the provision of financial services. Organizations which provide banking service must always consider quality as part of the innovation process. In the provision of financial service, service quality is an important factor which must be consider due to its significant relationship to cost. Some benefits of providing quality service include: customer retention, higher profitability, customer satisfaction, service guarantee and competitive capabilities. Also provision of quality service has also been recognized as a major driver of corporate markets as well as financial performance. Service quality has been recognized as having a potential to deliver strategic benefits such as an improvement in customer retention rates. Service quality also enhances operational efficiency and profitability. (Nassar M.2008). In the delivery of service, the quality of service affects customer satisfaction. Service quality is defined in conformance to customer specifications and requirements. It is the customers' definition of quality that matters not that of management. Another recent study shows that service quality inputs in customer satisfaction which in turn affects the financial performance of banks. The quality of service delivered in financial service is very important. Every new and improved product must meet customers' perception of the quality of service to be provided. Quality in the provision of service is a major source of completive edge hence innovation cannot be fully beneficial to the provision of service without considering the quality of the new or improved product or service. Quality contributes to higher level of profitability since this increases customer satisfaction and loyalty. Organizations must therefore

pay particular attention to how they manage delivery of service and also ensure that customers experience high quality of service.

In the delivery of service, quality is based on the perception of the customer on what is delivered. The quality of every new and improved product can only be determined by the customer, which means that when these services meet customer needs and satisfaction, the service can be classified of good quality. Basically the customer compares the service that is expected to be delivered and the actual service delivered to measure the quality of service provided to them. (Ennew T & Waite N, 311). Organizations that provide service must always consider the idea of customers' quality of the product before its introduction and implementation. Before a new product or service is offered, there is the need for the organization to consider how customers define quality as far as that product is concerned. Quality in financial service is based on convenience, affordability and safety of every product. For example in the case of Automated Teller Machines, institutions should mount the machines at vantage points with enough cash for customers to withdraw. All these are the ways customers' measure the quality of every innovative product delivered. In the delivery of service, as the bank makes changes in the products and services offered to customers, there is the need for the banks to consider the idea of service quality to the customers. The new products and services offered to the numerous customers should be of higher quality with added value than already existing products. When the bank makes changes to the products and services offered to customers, there should be added benefits that come with the products and services, with these customers will consider these products and services as quality. Furthermore as the bank makes changes in the ways in which products and services are being delivered, there is also the need for the bank to consider the idea of quality in the delivery process. For example with the introduction of Automated Teller Machines which enable customers to withdraw cash on any visa branded ATM,there is the need for the bank to put enough cash into the machines. Also the machines should work effectively without faults which will create problems to all customers; all these and other important factors are what customers consider as delivery of quality service in the banking industry. The thesis will use will use the dimensions in innovation and also the four dimensions of innovation space in the empirical part of the study. The empirical study identifies certain innovations in Barclays Bank Ghana and also Nordea Bank Finland focusing on changes in the products and services, changes in the ways in which these products and services are delivered and the context in which

the products and services are introduced. The empirical study will also focus on the quality of these products and services based on some responses from the customers.

There are several factors that have both negative and positive influence on innovations in firms. Before a firm comes out with any innovation, the firm gathers ideas from both internal and external which may have an adverse effect on the quality of innovation in the company. Some major internal factors include: Organizational size, strategy and structure: This is one of the major influences of innovation within the organization. The size of the organization of the organization is positively related to innovation within the organization. The larger the organization the greater the level of innovation. However, the size of the organization, and the stage of adoption normally moderates this relationship. Also the size of the organization is associated with both technical and administrative innovativeness. Furthermore, large service firms are normally involved in both technical and innovative alliances than small firms hence the greater the innovation in large firms. However both large and small firms have different types of privileges and hence do not therefore matter with the size as far as innovation is concern. Also the strategy of every business defines how the company and its business units can compete successfully within the industry of operations. Effective management of an organizations strategy can increase the competitive advantage of the firm. Strategic management involves a set of decisions and actions that determines both the short- term and long -term performance of the organization. The general strategy of the firm which includes new product development, new technology and innovation has a major influence on the success of the firm. Continuous improvement in the strategy of the firm contributes to quality productivity and customer satisfaction

2.3 Empirical Literature review

Empirical review is a review of related research using empirical evidence. It is a way of gaining knowledge by means of direct and indirect observation or experience. Empirical evidence (the record of one's direct observations or experiences) can be analyzed quantitatively or qualitatively.

In a study carried out in Rwanda it was found that customers have come to depend on and trust ATMs to conveniently meet their banking needs. However, the study found that the use of debit

cards has led to the proliferation of ATM fraud in Rwanda. It was also revealed that financial institutions, however, continued to adopt and offer debit cards for use by their account holders to access their funds and perform financial transactions such as checking balances from ATMs against the backdrop of increasing incidences of fraud. Consequently, the question arises on whether or not the financial institutions which have issued these cards have reported increased financial service delivery. (Richardson 2014)

An empirical study conducted in the same country examined the impact of automated teller machines on the cost efficiency of banking institutions. The objective of the study was to assess the impact of ATMs on cost efficiency. The scope of the study encapsulated commercial banks operating in Rwanda. According to the study findings, the use of ATMs and debit cards resulted in cost efficiency which was measured in terms of the cost-to-income ratio. The study findings led to the recommendation that there ought to be continued deployment of ATMs and debit cards by commercial banks in order to improve their overall efficiency. (Kelley et al. 2015).

Narteh and Owusu- Frimpong (2011) conducted study in Ghana to determine the dimensions of ATM service quality and their relation with customer satisfaction. The survey employed a convenience and systematic sampling methods and a self completion questionnaire were administered to 650 ATM users of 15 banks in Ghana. The results generated by exploratory factor analysis method indicate that reliability, ease of use, accuracy, convenience and responsiveness are all significant dimensions of ATM service quality. Further analysis indicated that ATM service quality is positively related to customer service satisfaction. However, individually, only reliability, convenience and accuracy dimensions have a significant impact on customer satisfaction. The study therefore suggested that managers who intend to improve ATM service experience of customers should focus on the reliability, convenience and accuracy dimensions of the ATMs

A study carried out in Kenya examined the effect of ATMs usage on the financial service delivery of commercial banks in Nakuru County. The objective was to determine the effect of automated teller machines on the financial service delivery of the aforementioned banks. A correlational-cross-sectional research design was adopted. The commercial banks operating in Nakuru County constituted the accessible population. Twenty-eight respondents were selected using simple random sampling technique and structured questionnaires were employed to obtain

data from them. The study found out that the usage of ATMs had a positive significant relationship with financial service delivery. It was recommended that commercial banks should invest considerably in ATMs with the view of enhancing their financial service delivery. (Rogers, 2019),

According to the study findings, there existed a positive correlation between ATM and return on assets. Moreover, it was revealed that the ATMs positively and significantly influenced the financial service delivery of the banks. The study recommended that the listed commercial banks in Rwanda ought to put more effort towards the adoption of ATMs in line with the automation of their service delivery to customers.

Empirical review is a review of related research using empirical evidence. It is a way of gaining knowledge by means of direct and indirect observation or experience. Empirical evidence (the record of one's direct observations or experiences) can be analyzed quantitatively or qualitatively. Bishnoi (2013), in this research paper “An empirical study of customer’s perception regarding Automated Teller Machine attempts to find out the perceptions of customers of various banks regarding various issues related to ATM/Debit cards. The study concludes that ATM is a very convenient mode of electronic banking as a result its usage is increasing day by day. The authors have made a sincere attempt to ascertain customer perceptions about use of ATM services, perception about ATM services and the problems while using ATM/Debit cards. However, the author has not been able to other collect factors regarding customer perceptions other than those supplied to the respondents. Sai Krishna (2009), in his study of “ATM cards in banks” has attempted to find out why customers are increasingly using ATM cards. The objectives of the study were to draw a profile of a urban ATM cardholders, to identify the factors influencing the people to use ATM cards, to assess the benefits of ATM cards to the cardholders, and to assess how, where and when ATM cards are used. This study certainly helps the banks to concentrate on increasing the volume of the number of ATM card holders by providing various user-friendly schemes.

The author suggests that banks must concentrate more on promotional activities in order to create bank’s image in the minds of the card holders and try to balance the quality and service to remain as market leader. Though, this study is based on primary data and considers respondents from only one bank. Ogbuji, (2012) , in their research paper “Analysis of the negative effects of

Automated Teller Machine (ATM) as a channel for delivering banking services. ” proposed that the ATM system of delivering banking services not only contribute to increasing rate of fraud but equally lures Nigerians into profligate expenditure. The study reveals that ATM was lauded by several customers as an alternative to standing in long Q’s. But today, this has become a source of worry to customers and banks. This study concludes that ATMs have contributed to the alarming rate of fraud in Nigerian banking industry. ATM fraud could be reduced but cannot be wiped out completely. The study comes out with the conclusion that out of various services of ATMs, in ability of the machine to deliver seamless service, poor maintenance by management, frustrating network, irregular deductions from customer accounts were problems faced by customers. However, problem of network failure was the most outstanding problem. Empirical findings of performance of commercial banks are inconclusive. Hsiu-I Ting (2017) finds that financial liberalization reduces bank performance. Similarly, Iftikhar (2016) provides evidence that financial performance has a significant negative impact on bank interest margins in a cross-country study on 1300 banks of 76 countries for the period 2001- 2005. However, Heffernan and Fu (2010) suggest performance policies have significant positive effect on NIM compared to ROA Naceur and Goaied (2008) find partial liberalization negatively affects interest margin whereas complete liberalization strengthens the ability of Tunisian banks to generate profit margins. The mixed evidence suggests the relationship between ATM transaction and performance of commercial banks is an empirical issue. One study, Sufian and Habibullah (2009), finds a positive impact of some bank-specific characteristics on the determinants of performance for the period 1997-2004. This research examines the impact of automated teller machine (ATM) financial performance in Rwanda.

Kanik Verma (2014) conducted a comparison research on"analyzing the level of satisfaction of Union Bank of India and Yes Bank customers based on several variables linked to ATMs." Data on various aspects of ATM services, such as ATM location, processing time, cash availability, note quality, ATM grievances resolution, safety & security, and sufficient numbers of ATMs, was collected from 40 Union Bank of India and Yes Bank ATM users through convenient sampling, and the data was analysed using statistical techniques and tools such as Descriptive Statistics, Percentage Method, and Ranking Method. Abebe (2013) conducted an exploratory study titled "ATM service quality and customer satisfaction in Ethiopian banks." The survey's target population included Zemen, Dashen, and the Commercial Bank of Ethiopia in Addis

Ababa, with 150 respondents picked using a quota sample method. According to the findings of the study, the majority of customers are satisfied with the accuracy and convenience of use of ATM banking services. However, some customers thought that their bank's ATM service needed to be enhanced in order for them to be completely satisfied in terms of convenience and response. Ephreame (2016) wrote his master's thesis on "Assessment of ATM Banking Service and Customer Satisfaction in Ethiopian Private Banks: A Case Study of PSS Member Banks." The study employed a descriptive research approach, with six PSS member private banks in Addis Ababa as the study's target population. The questionnaire was distributed to 369 people, and data was collected from responders who were chosen at random. According to the findings, the majority of respondents believe that the number of ATMs available across a given distance is reasonable, and that ATMs offer a user-friendly system environment in which to conduct transactions and obtain services.The majority of clients are dissatisfied with automated teller machine services, and they do not suggest others to use them, according to the findings of the survey.The majority of clients are dissatisfied with automated teller machine services, and they do not suggest others to use them, according to the findings of the survey. Fyery (2015) conducted a study titled "Customer ATM Adoption in Ethiopian Commercial Banks in Mekelle City." The study used a descriptive approach, and the study's target audience was limited to ATM users at the Ethiopian Commercial Bank's Mekelle branch. 130 ATM users were randomly selected and a structured questionnaire was obtained from them. The information gathered was examined using descriptive statistics including frequency, percentage, and mean. As a result of the findings, ATM adopters at the bank only use a few types of services, namely cash withdrawals. Finally, the study suggests that the bank increase its advertising efforts by focusing on raising customer understanding of the technology and the many sorts of services provided by ATMs

2.4 Research Gap

ATMs often experience technical failures or require maintenance, leading to periods when they are out of service. This can disrupt access to cash and other services for customers, ATMs are susceptible to various security threats, including card skimming, ATM fraud, and physical tampering. Despite security measures, these vulnerabilities can be exploited by criminals, Maintaining an ATM network involves significant costs, including cash replenishment, routine

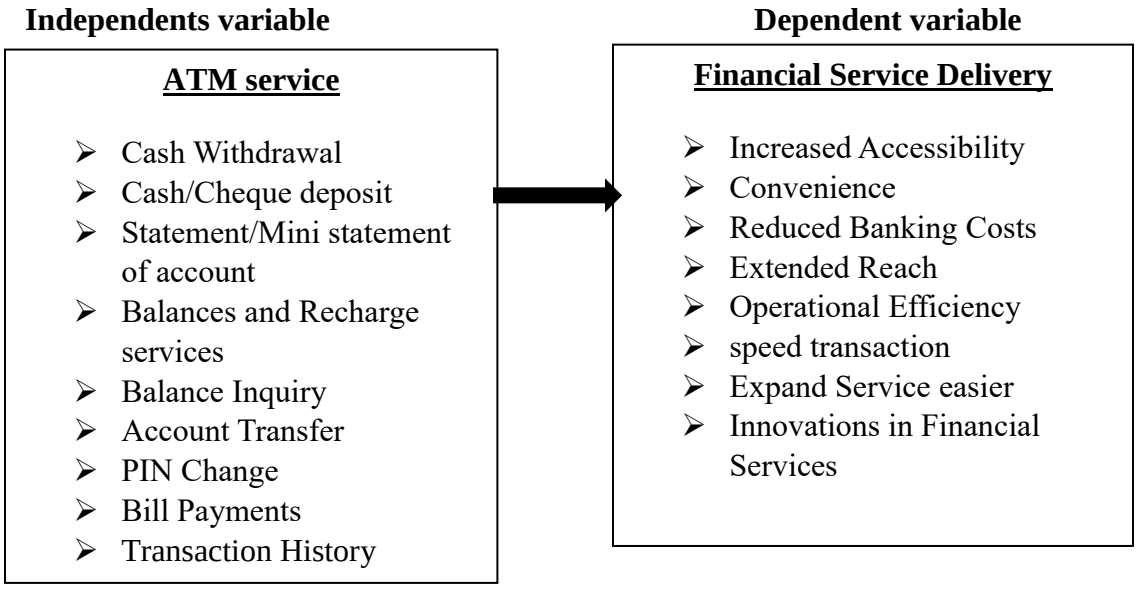
maintenance, and repairs. These expenses can strain financial institution budgets, Many ATMs are designed to perform only basic transactions, such as cash withdrawals and balance inquiries. They may lack advanced features or capabilities available through other banking channels. ATMs are targeted by criminals for fraud and theft, including cash theft and card cloning. These incidents can compromise customer accounts and bank assets, in some areas, especially rural or underserved regions, ATMs may be scarce or poorly maintained, limiting access for certain populations, The design and interface of ATMs may not be user-friendly for all customers, including those with disabilities or limited technological proficiency. As digital and mobile banking technologies evolve, ATMs must adapt to remain relevant. Integration with new technologies and ensuring interoperability with digital platforms can be challenging (Mohammed and Dada, 2014).

Increased customer frustration, potential loss of business for financial institutions, and the need for costly repairs and maintenance, financial losses for customers and banks, potential legal issues, and erosion of trust in ATM services, Higher financial costs can lead to increased fees for customers or reduced investment in other banking services, Customers may need to visit bank branches or use digital platforms for more complex transactions, reducing the convenience of ATMs. Financial losses, increased security measures, and potential damage to the reputation of financial institutions, increased financial exclusion and limited access to essential banking services for underserved communities, Poor user experience can lead to difficulties in accessing services, increased customer dissatisfaction, and potential errors in transactions. Risk of obsolescence and potential failure to meet evolving customer expectations (Dilijonas, 2019).

2.5 Conceptual Framework

Based on the literature review mentioned above, the researcher modified the following schematic representation of the relation of the study variable developed by (Mary & Isola, 2019). The conceptual framework illustrates the association of dependent and explanatory variable of the study. In this particular study, the independent variable was ATM services and dependent variable was the financial service.

Figure 2. 1. Conceptual Framework



Source: Researcher (2024)

CHAPTER 3: RESEARCH METHODOLOGY

This section shows a description of research design, study population, sampling design which includes the sampling method, sampling procedure and sample size, sources of data collection, data collection methods, data processing, analysis and presentation and the problems encountered.

3.1 Research Design

Accordingh to Orodho (2022) defined a research design as the scheme, plan or strategy that used to create answers to research problems. The study adopted a descriptive research design aimed effect of automated teller machines (ATMs) services quality and financial service delivery of banking sector in Rwanda Babbie and Mouton (2022) observes that many descriptive studies are cross-sectional in nature. In addition, the cross-sectional survey was preferred because it enables assessing relationship between variables and it provides opportunity to identify moderators between variables (Fidell, 2020).

According to Kumar (2021) the concern of research design is to explain how researcher was found the answer to his/her research questions. It entails the selection of people from whom the information, through an open frame of enquiry, is explored and gathered. Kelly (022), a research design provides a structure of data collection and analysis. The research structure refers to three dimensions: the scale of date gathering includes defining units and spatial limits, schedule of research, the use of inter-groups comparisons or the comparative dimension.

The research was used descriptive design. Singh (2022) stated that descriptive research is more realistic because it is oriented towards the description of given phenomenon. It involves cross-sectional samples; the samples should be representative of the study population. The purpose of descriptive research includes identification of present conditions and point to present needs to study immediate status of a phenomenon, fact findings, relationships of traits, and characteristics Singleton (2021) describes a descriptive cross-sectional survey as a comprehensive design that enables large and diverse amounts of data to be collected within a short time frame and analysed quantitatively, giving a credible presentation of results. Thus, this approach is suitable for this

study, since the study intends to collect comprehensive information through descriptions which was helpful for identifying variables.

3.2 The Population of the study

According to Kothari (2022), a study population is a well-defined or specified set of people, group of things, households, firms, services, elements or events, which are being investigated. Thus, the population should fit a certain specification, which the researcher was studied, and the population should be homogenous. According to Donald (2020), Population is a group of individuals who have one or more characteristics in common. To achieve good population validity, quantitative researchers must select their sample from a defined population to which they wish to generalize their results Gall, (2021). Therefore, for this study the target population to whom researcher conducted this study is 1520 customers and staff selected two sectors in in Nyarugenge District have been trained by the ICT literacy

3.3. Sampling technique

Researcher was used simple random sampling. And purposive sampling, Simple random sampling is a sampling technique where every item in the population has an even chance and likelihood of being selected in the Chandran, (2022).

3.3.1. Random sampling

As with all probability sampling methods, simple random sampling allows the sampling error to be calculated and reduces selection bias. A specific advantage is that it is the most straightforward method of probability sampling. Random sampling is a sampling technique where every item in the population has an even chance and likelihood of being selected in the sample. Here the selection of items completely depends on chance or by probability and therefore this sampling technique is also sometimes known as a method of chances Bailey (2022). The researcher will use this technique to ensure that each respondent of the target population had an equal and independent chance of being included in the sample.

3.3.2. Purposive sampling technique

Purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling, the researcher purposively

3.3.3. Sample size determination

The sample refers to representative elements selected from a population on which investigation is to be done for this study (Mugenda, 2019). During the present research, researcher need to have a small number of respondents who were provided data in need for the success of the work. For choosing the sample size, the researcher was used Yamane and Amin's formula of Yamane formula (2005) presented as follow:

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

Where n= sample size

N= size of the population

e= margin error or confidence level ordinary equals to 5%

$$\mathbf{n} = \frac{1520}{1+ 1520\ (0.05)^2} = \frac{1520}{4.8} = 316.7 = 317$$ Customers and Staff of I&M Bank

3.4. Sources of data

Researchers used both primary sources and secondary sources of data in this study. Empirical data was collected from different sources to ensure their reliability and validity.

3.4.1. Primary data

Primary data is an original and unique data, which is directly collected by the researcher from a source such as observations, surveys, questionnaires, case studies and interviews according to his requirements Boslaugh (2023) Therefore, for the present study researchers collected primary data through structured interviews and questionnaires.

3.4.2. Secondary data

In simple terms, secondary data is every dataset not obtained by the author, or "the analysis of data gathered by someone else to be more specific. Secondary data may include data that has been previously gathered and is under consideration to be reused for new questions, for which the data gathered was not originally intended (Vartanian, 2010). Therefore, in this study secondary data were obtained through documentary review where researcher find the data in various books to support the empirical review, and in the document of the bank understudy such as in its financial report in the covered period.

3.5. Data collection instruments

In order to facilitate the study to be well accomplished each objective of the study investigated by using specific questions. The study applied the following tools of data collection, documentary study but mainly questionnaires.

3.5.1 Questionnaire

A questionnaire is an instrument that consists of a set of questions whereby a large number of people are asked to answer in order to provide data/information to the research. The questionnaire was written in very simple language to avoid ambiguous answers from the respondents. A questionnaire is a useful tool for gathering information (Tromp, 2020). The questionnaire used in this research was designed.

3.5.2. Interviews method

Interview is a method of collecting data in which selected participants are asked questions in order to find out what they do think or feel. According to Bailey (2020), an interview schedule is a special of social interaction between two persons and is subjected to some of the rules and restrictions as other instances of social interactions.

During the study, the researcher (interviewer) had conversion with the respondents (interviewee) and the researcher noted down the answer on the questions posed. This will be done by the help of an interview guide.

This method was specifically used to collect date from the respondents who don't know how to read and write, did not kwon English and to those who claimed to have no time to fill the questionnaires. An interview guide was used for the purpose of collecting information from the intended informers.

3.5.3. Documentary Review

Concerning the secondary data, the researcher was used documents from different libraries and downloaded on the internet to obtain information This is data collection technique based on reading books, report and documents which have information related to the topic, (kohari, 2021) topic For this case researcher was review the information from, books, journals and reports with the main purpose of finding the secondary data to support the findings and theoretical review of this study.

3.6. Measurement of research

According to (Grawtz, 2022), Measurement and scale means how data was processed for facilitating the analysis of data. For instance, using mean, median, standard deviation and Likert-scale where: 1 = Strongly Agree, 2 = Agree, 3 = Disagree and 4 = Neutral, 5 = Strongly Disagree.

3.7. Reliability and Validity of Research Instruments

Closed questionnaire was developed in harmony with the guidelines specified by Sekaran (2020). First, an item analysis was done to see whether the items in the instrument belong there and a pre – test was carried out to check validity and reliability to minimize on vagueness of the results to be generated. Reliability (internal consistency and stability) of the instruments were tested using Cronbach's Alpha Coefficient which should be above 0.7 (70%) (Nunnally & Bernstein, 2021). The researcher was test inter – item consistency reliability to ensure that there is the consistency of respondents' answers to all items in the measure.

Content validity index was obtained by dividing the proportion of items declared as valid by the total numbers of items as recommended by Amin (2015). Construct validity focuses on

measurements of theoretical constructs that it intends to measure (Crewell, 2016), which should be above 0.5 as recommended by Neuman (20106).

3.8 Data processing

Zikmund (2019) asserts that data processing was a link between data collection and data analysis. Data collected is really in arrow form. It was easier for the researcher to present the findings of the study. Therefore, the researcher was technically process data before proper analysis to become more meaningful for interpretation. Data processing was done in accordance with general and specific objectives of the research study. It involves the transformation of the observation gathered from the fields into the system of categories and the transformation of these categories into codes and amenable to quantitative analysis was and tabulation. The data processing began with editing, coding and later with tabulation. After data processing the data collected was transform into meaningful information for easy interpretation and understanding.

3.8.1 Editing

According to Williamson (2018), “Editing is the process where errors in completed interview schedule and questionnaire are identified and are eliminated whenever possible”. Editing was done to check completeness, accuracy, uniformity, eligibility, and comprehensibility and is a routine task after every interview on receiving the questionnaire responses.

3.8.2 Coding

According to Creswell (2019), coding was the procedure by which data are categorized. Through coding, the raw data are transformed into symbols, usually numerals that may be tabulated and counted. The transformation was automatic; however, it involved judgment on the part of coder. He states that the purpose of coding in the survey was classifier the answers acquired. These were coded and tallier was used to determine the frequencies of each response. Similar responses would be grouped according to their different categories. This helped the researcher to know for instance the percentage of responses.

3.8.3 Tabulation

After editing and coding, which ensures that the information on the schedule is accurate and categorized in a suitable form, the data are put together in some kinds of tables and may also undergo some other forms of statistical analysis. Tables can be prepared manually and/or by computers (Cooper& Schindler, 2019). Frequency distribution tables were used after editing and coding of data. Tables were constructed according to the main themes in the questionnaire to summarize all the findings of the study.

3.9. Methods of Data analysis

According to Dawson, (2019), the methods of analysing data depend on whether researcher was chosen to conduct research, and moreover the choice is influenced by personal and methodological preferences and educational background. Data analysis depends upon the way it was collected and the purpose use of findings. In the research, the quantitative methods were used to analyse statistical data, and qualitative concerned narratives. The study will use SPSS (version 22.0) for statistical analysis; to evaluate the relationship, and correlation between independent and dependent variables from answers that individual respondents provided. The study also was used the descriptive statistical methods like means, frequency, percentages to analyse correlations between factors; presentation of analysis characterised by table, histogram, figures, graphs, and narrative analysis. The researcher used the Pearson correlation test. Pearson's correlation coefficient is the test statistics that measures the statistical relationship, or association, between two continuous variables. It is known as the best method of measuring the association between variables of interest because it is based on the method of covariance.

[-1.00 - 0.00[: Negative correlation;

[0.00 - 0.25 [: Positive and very low correlation;

[0.25 - 0.50 [: Positive and low correlation;

[0.50 - 0.75 [: Positive and high correlation and

[0.75 - 1.00]: Positive and very high correlation.

3.9.1 Analytical Method

The analytical method helped the researcher to separate different parts that make a whole data to realize a crucial study of each aside (Kakooza, 2019). This method was used to analyse data collection and other information pertaining to the research; it enables the researcher to analyse information and data that collected case by case. It helped to analyse statistics and other data that give idea concerning the topic.

3.9.2 Synthetic Method

This method was opposed to the previous one is helpful in making up a global synthesis out of scattered data information that the researcher was gather during the research process. Also, the synthetic method is a method that consists in synthesizing collected data on filed to give them a meaning full and concise sense (Laberete, 2019).

3.9.3 Statistical method

The statistic method helped the researcher to quantify data and to make it accessible to rigorous mathematics treatment (Aktouf, 2019). This method helped the researcher especially in presentation and analysis of quantified data like in table with reference to frequencies of appearance of answers and on percentages.

3.10. Limitations of the study

Though good work it is, this research was impeded by inaccessibility to very expensive books and papers. Some of the books that were not in our disposition have not been accessed, when researcher requested a book online, they provided a cost that was not affordable while the book might contain relevant information. Time is the second major constraint as this was limited since the researcher had many tasks (studies, jobs and research). Nevertheless, the researcher tried to do their best so as to overcome those challenges positively.

3.11. Ethical considerations

The researcher considers ethics is an important part of this research study as recommended by Bryman (2016). The researcher should carefully address all factors related ethical issues in order

to protect all participants from emotional, mental and physical harm or financial loss which may occur during the study. In addition, in order to avoid all possible ethical issues, this research project has followed Kigali Independent University rules and guidelines. The researcher was written official request letters based on the Kigali Independent University guidelines and directions, and this letter was sent to the management of I&M Bank in order to gain authorization and approval for conducting my research project. In addition, to ensure that the procedure in this research study allows for entirely voluntary consent, all participants are informed that it is voluntary participation. They can participate in this research project if they are interested.

CHAPTER 4: RESEARCH FINDINGS AND INTERPRETATIONS

Introduction

All of the data gathered during the research is analyzed and interpreted in this chapter. This chapter's objectives are to analyze and examine the services provided by ATMs at I&M BANK PLC, assess the effectiveness of those services, investigate customer issues encountered when utilizing I&M BANK PLC's ATM services, assess the impact of ATM services on the company's financial services delivery, and determine the relationship between ATM services and financial services delivery. It also presents and discusses the study's key findings and their understandings, after which percentages are used to analyze and interpret data in relation.

4.1 Respondents, demographic analysis

Ages, sex, education level, year of professional as well as task are the characteristics used to analysed respondents' demographic analysis.

Table 4.1: Distribution of respondents by sex and ages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	192	60.6	60.6	60.6
	Female	125	39.4	39.4	100.0
	18-25 years old	20	6.3	6.3	6.3
	26-35 years old	135	42.6	42.6	48.9
	36-45 years old	158	49.8	49.8	98.7
	46-55 years old	3	0.9	0.9	99.6
	56 years and above	1	0.4	0.4	100.0
	Total	317	100.0	100.0	

Source: Primary data, September 2024

According to the results in table 4.1, a significant portion of the respondents are male, with 60.6% of them being male by sex and 39.4% being female. It appears that men are aware that they have the ability to engage in positions of decision-making, even if the government has put in place a variety of procedures to empower males.

Table 4.1 indicates that of the participants in this study, 6.3% are between the ages of 18 and 25, 42.6% are between the ages of 26 and 35, 49.8% are between the ages of 36 and 45, 0.9% are between the ages of 46 and 55, and 0.4% are over the age of 56. Most of the respondents are old enough to answer the questions in a way that makes sense.

The results above suggest that most of the study's participants are active individuals who are interested in the research because adults can supply the rich data that the study needs. These distributions aid in examining how various groups view service quality and how it affects the financial services that I&M BANK PLC provides.

Table 4.2: Distribution of respondents by Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 year	8	2.5	2.5	2.5
	2 years	11	3.5	3.5	6.0
	2-5 years	152	47.9	47.9	53.9
	5-8 years	137	42.2	42.2	96.1
	8 - 10years	4	1.3	1.3	97.4
	Above 10 years	5	2.6	2.6	100.0
	Total	317	100.0	100.0	

Source: Primary data, September 2024

The table 4.2 shows the experience of employees of each respondent supported by I&M BANK PLC in terms of years. Within 8 employees have experience of 1 years, 11 employees only have experience of 2 years, 152 employees have experience 2 -5 years, 4 of them have experience of 8-10 years forming 47.9%, while 137 employees have experience between 5-8 years and 5 employees have experience above 10 years.

Table 4.3: Education levels of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Post graduate level	2	0.7	0.7	0.7
	Under graduate level	7	2.2	2.2	2.9
	Primary level	208	65.6	65.6	68.5
	Advanced diploma level	100	31.5	31.5	100.0
	Total	317	100.0	100.0	

Source: Primary data, September 2024

Table 4.3 displays the respondents' educational attainment, showing that 0.7% have a postgraduate degree, 2.2% have an undergraduate degree, demonstrating their suitability for employment, 65.6% have a primary degree, and 31.5% have an advanced diploma. Better service delivery may result from management and staff of I&M BANK PLC having higher educational backgrounds. Employees with higher levels of education are more likely to comprehend and apply best practices, which enhances operational effectiveness and customer satisfaction.

4.2 To examine services offered by ATM at I&M BANK PLC

I&M Bank PLC's automated teller machines (ATMs) offer both people and companies a variety of services beyond simple cash withdrawals.

4.2.1 Cash Withdrawal of financial services delivery of I&M BANK PLC

I&M Bank PLC's cash withdrawal service is a crucial component of the financial services it offers. It enables users to conveniently access their money on a number of platforms, mainly through digital channels, branches, and ATMs. A thorough analysis of I&M Bank's cash withdrawal procedures may be found below:

Table 4.4: Cash Withdrawal of financial services delivery of I&M BANK PLC

	N	Mean	Std. Deviation
Removing agents lowers I&M BANK PLC's infrastructure expenses.	317	4.3879	1.04524
Removing agents decreased computational mistakes.	317	4.7636	.64289
Agent withdrawal aids in monitoring safety precautions.	317	4.5758	.95094
It provides a paperless way for I&M BANK PLC to conduct business.	317	4.5636	.98334
Valid N (listwise)	317		

Source: Primary data, September 2024

A mean of 4.3879 and a standard deviation of 1.04524 for the cash withdrawal of I&M BANK PLC's financial services delivery suggest that respondents agreed that the withdrawal from agents lowers I&M BANK's infrastructure costs (Table 4.4). With an average score of 4.7636 and a standard deviation of 0.64289, respondents likewise strongly agreed that removing agents decreased computational mistakes. With a mean score of 4.5758 and a standard deviation of 0.95094, respondents also strongly agreed that watching over safety measures is aided by withdrawing from agents. A mean score of 4.5212 and a standard deviation of 1.02164 indicated that respondents agreed that I&M BANK PLC provides a paperless form of transaction.

The findings suggested that I&M Bank offers agency banking, which allows clients to take out cash from licensed banking representatives. As a result, areas with fewer bank branches can now access financial services. Agent sites, which are usually more accessible in distant places, allow customers to withdraw smaller sums. Customers who receive company payments, pensions, or salaries into their I&M Bank accounts can readily access these funds through cash withdrawals, which give them flexibility beyond regular banking hours.

4.2.2 Cash/Cheque deposit of financial services delivery of I&M BANK PLC

As part of its financial service delivery, I&M Bank PLC offers comprehensive cash and check deposit services to make sure that clients may conveniently and easily manage their finances. These services are available via a number of channels, such as digital channels, branches, and ATMs.

Table 4.5: Cash/Cheque deposit of financial services delivery of I&M BANK PLC

	N	Mean	Std. Deviation
ATM Cash Deposits	317	3.9500	1.57196
Mobile Banking Deposits (Through Partners)	317	4.1000	1.16529
Branch Cheque Deposits	317	4.2500	.91047
Electronic Payment Options	317	4.4000	.75394
Deposit Limits & Identification	317	4.5500	.75915
Valid N (listwise)	317		

Source: Primary data, September 2024

According to table 4.5, respondents significantly agreed with ATM cash deposits, with a mean score of 3.9500 and a standard deviation of 1.57196, regarding the financial services delivery of I&M BANK PLC. Respondents also strongly agreed that Mobile Banking Deposits (Through Partners) with a mean score of 4.1000 and standard deviation of 1.16529. With a mean score of 4.2500 and a standard deviation of 0.91047, respondents likewise strongly agreed that branch check deposits existed. With a mean score of 4.4000 and a standard deviation of 0.75394, respondents also strongly agreed that electronic payment methods are excellent. Respondents also highly agreed that deposit limitations & identification with a mean score of 4.5500 and standard deviation of 0.75915.

It is implied that I&M Bank PLC has enabled cash deposit functionality on a few ATMs, enabling customers to deposit funds into their accounts even after regular business hours. Additionally, I&M Bank frequently collaborates with mobile money services, enabling customers to transfer funds from their mobile wallet to their I&M Bank account. Customers can deposit checks in person at any I&M branch by filling out a check deposit slip and handing the

check to the teller. After then, the check is conducted for clearing and Additional identification or compliance with anti-money laundering (AML) requirements may be necessary for cash deposits above specific thresholds.

4.2.3 Accounts Statement/Mini Statement of financial services delivery of I&M BANK PLC

One of the main services that I&M Bank PLC offers as part of their financial services delivery is mini statements. Customers can monitor their transactions, account balances, and general account activity with the use of these services. These services are provided by I&M Bank via a variety of channels, giving both individual and business clients flexibility and convenience.

Table 4.6: Mini-statement of accounts or statement of financial services delivery of I&M BANK PLC

	N	Mean	Std. Deviation
ATM Mini Statement	317	4.5000	1.17444
Mobile Banking (I&M App)	317	3.7955	1.54740
SMS Banking	317	3.7841	1.53465
Branch Statements	317	3.7841	1.53465
Valid N (listwise)	317		

Source: Primary data, September 2024

With a mean score of 4.5000 and a standard deviation of 1.17444, table 4.6 demonstrates how respondents felt about the statement/mini statement of account of financial services delivery of I&M BANK PLC. They strongly agreed with the ATM Mini Statement. The I&M App, which has a mean score of 3.7955 and a standard deviation of 1.54740, was likewise highly endorsed by respondents. A mean score of 3.7841 and a standard deviation of 1.53465 indicated that respondents likewise strongly approved with SMS banking. Branch statements were likewise strongly agreed with by respondents, with a mean score of 3.7841 and a standard deviation of 1.53465.

The mini-statement function offered by I&M Bank ATMs was strongly agreed upon by the majority of respondents. With the use of I&M Bank's SMS banking services, customers can get mini-statements on their phones. After inserting their debit card and selecting the mini-statement option, consumers can print a slip showing their most recent transactions from the ATM.

Consumers can text a unique SMS code to the bank's number to receive a list of their recent transactions, or they can pick up a printed account statement at any I&M Bank location. The statement will contain information on each transaction over a specified time period, usually monthly, quarterly, or upon request from the customer. In order to obtain statements in person, clients may need to fill out

Customers can log in, view, and download their transaction history for any selected period of time, as well as access the statement section of their online banking account. With the help of I&M Bank PLC's adaptable and user-friendly solutions, customers may access both full and partial account statements, enhancing their ability to monitor their accounts. Through branch services, ATM channels, and online and mobile banking, customers can choose the method that best suits their needs for managing account information.

4.2.4 Balances and Recharge services of financial services delivery of I&M BANK PLC

I&M Bank PLC offers several services to help customers check their balances and perform recharge (top-up) transactions. These services are available through various channels, allowing customers to manage their accounts conveniently and efficiently.

Table 4.7: Balances and Recharge services of financial services delivery of I&M BANK PLC

	N	Mean	Std. Deviation
Mobile Banking (I&M Mobile App)	317	4.3333	1.11894
ATM Balance Inquiry	317	4.4762	.86216
Airtime Recharge	317	3.5000	1.61170
Utility Bill Payments	317	3.8095	.39744
Valid N (listwise)	317		

Source: Primary data, September 2024

According to the findings in table 4.7, respondents balance and recharge the financial services provided by I&M BANK PLC. The majority of respondents strongly agreed that mobile banking (I&M Mobile App) was reliable (mean = 4.3333, standard deviation = 1.11894), and that ATM balance inquiry was reliable (mean = 4.4762, standard deviation = 0.86216).Airtime Recharge

was also strongly agreed upon by the respondents (mean=3.5000, standard deviation=1.61170).Utility bill payments were likewise strongly agreed upon by the respondents (mean=3.8095, standard deviation=0.39744). Most respondents firmly agreed that the mobile app enables users to manage numerous accounts, transfer money, and check balances in real time.

Both iOS and Android devices can use this software. Customers can use the ATM network of I&M Bank to check their account balances by inserting their debit card or ATM. They can also use the mobile banking app and banking to top up airtime for different mobile networks straight from their bank accounts. Paying for utilities like electricity, water, or internet services through I&M Bank's online or mobile banking systems is especially helpful for prepaid clients who need quick access to airtime without going to a store.

4.2.5 Account Transfer of financial services delivery of I&M BANK PLC

By giving consumers quick, easy, and safe ways to transfer money between accounts or to third-party accounts, I&M Bank PLC's account transfer services significantly improve the delivery of financial services. Both enterprises and individual consumers are greatly impacted by this service, which enhances the bank's overall customer experience and operational effectiveness.

Table 4.8: Account Transfer of financial services delivery of I&M BANK PLC

	N	Mean	Std. Deviation
Convenience and Accessibility	317	4.6788	.68064
Increased Efficiency in Financial Transactions	317	4.4606	1.15028
Cost-Effective Transactions	317	4.4121	1.20460
Improved Financial Management	317	4.3636	1.28827
Enhanced Customer Satisfaction and Retention	317	4.2121	1.42618
Facilitating Digital Banking Growth	317	4.3515	1.26783
Enhanced Security and Fraud Prevention	317	4.1455	1.36263
Valid N (listwise)	317		

Source: Primary data, September (2024)

The results of the SPSS study on the account transfer of financial services provided by I&M BANK PLC are displayed in table 4.8 above. With a mean score of 4.6788 and a standard deviation of 0.68064, respondents strongly agreed that accessibility and convenience were important factors. The mean score of 4.4606 and the standard deviation of 1.15028 indicate that respondents strongly agreed that financial transactions were more efficient. With a mean score of 4.4121 and a standard deviation of 1.20460, respondents also strongly agreed that purchases were cost-effective. A mean score of 4.3636 and a standard deviation of 1.28827 indicated that respondents likewise strongly agreed that better financial management was necessary. With a mean score of 4.2121 and a standard deviation of 1.42618, respondents also strongly agreed that improved customer satisfaction increases customer retention. With a mean score of 4.3515 and standard deviation of 1.26783, respondents also strongly agreed that promoting the expansion of digital banking is important.

The mean score of 4.1455 and the standard deviation of 1.36263 indicate that respondents strongly agreed that improved security and fraud prevention are important. The findings suggested that I&M Bank PLC's account transfer services have a revolutionary effect on the way the bank provides financial services. They facilitate financial management for both individuals and businesses, increase convenience, increase transaction efficiency, and reduce expenses. These services also support security, boost digital adoption, and assist the bank in continuing to run its business in an eco-friendly and competitive manner. All things considered, account transfers are essential to I&M Bank's endeavors to offer cutting-edge, client-focused financial solutions.

4.2.6 PIN Change of financial services delivery of I&M BANK PLC

I&M Bank PLC's PIN change service is a crucial part of safe banking and makes a substantial contribution to the provision of financial services in general. Customers can use this service to change or reset their Personal Identification Numbers (PINs) for a variety of banking channels, including online platforms, debit/credit cards, ATMs, and mobile banking. Customer confidence, security, and trust in the bank's traditional and digital services are all increased when PINs can be changed quickly and securely. The main ways that PIN change services support I&M Bank's financial services delivery are listed below.

Table 4.9: PIN Change of financial services delivery of I&M BANK PLC

	N	Mean	Std. Deviation
Enhanced Security	317	3.7758	1.38965
Improved Customer Confidence and Trust	317	3.7697	1.38205
Convenience and Accessibility	317	3.8121	1.35065
Supports Digital Banking Adoption	165	3.7939	1.37263
Minimizing Card and Account Misuse	165	3.8606	1.33844
Operational Efficiency	165	3.8242	1.36127
Compliance with Security Regulations	165	3.8303	1.34629
Risk Management and Fraud Prevention	165	3.7273	1.42864
Improved User Experience	165	3.7394	1.40945
Valid N (listwise)	165		

Source: Primary data, September (2024)

With a mean of 3.7758 and a standard deviation of 1.14496, the respondents felt that enhanced security was important for the PIN change of I&M BANK PLC's financial services delivery, as shown in table 4.9 above. With a mean score of 3.8242 and a standard deviation of 1.07298, respondents also strongly agreed that there was an improvement in customer confidence and trust. With a mean score of 4.0242 and a standard deviation of 1.33413, respondents also strongly agreed that accessibility and convenience are important factors. With a mean score of 4.1273 and a standard deviation of 1.31206, respondents concurred that they support the adoption of digital banking. With a mean score of 4.2606 and a standard deviation of 1.33388, respondents concurred that minimizing card and account misuse is important.

It is inferred that I&M Bank PLC's PIN changing service makes a substantial contribution to the provision of safe, effective, and client-focused financial services. I&M Bank increases security, fosters customer confidence, and promotes digital adoption by providing clients with the option to securely and swiftly alter their PINs via a variety of channels. This solution also enhances the overall customer experience while supporting the bank's operational efficiency, risk management, and regulatory compliance initiatives.

4.2.7 Bill Payments of financial services delivery of I&M BANK PLC

Bill payments are a crucial component of I&M Bank PLC's financial services delivery, giving clients an easy and effective way to pay a variety of bills straight from their bank accounts. Numerous channels, such as branch services, ATMs, mobile banking, and internet banking, are integrated with this service.

Table 4.10: Bill Payments of financial services delivery of I&M BANK PLC

	N	Mean	Std. Deviation
Electronic execution	317	4.3879	1.04524
Convenient for installments	317	4.7636	.64289
East to save the biller information for reuse at a future time	317	4.5758	.95094
Payment data can also be downloaded	317	4.5636	.98334
Valid N (listwise)	317		

Source: Primary data, September 2024

With a mean of 4.3879 and a standard deviation of 1.04524, Table 4.10 reveals that the respondents agreed that the electronic execution was used for bill payments of financial services delivery of I&M BANK PLC. A mean score of 4.7636 and a standard deviation of 0.64289 indicated that respondents likewise strongly felt that installment payments were convenient. With a mean score of 4.5758 and a standard deviation of 0.95094, respondents also strongly agreed that it would be beneficial to store the biller information for later use. With a mean score of 4.5212 and a standard deviation of 1.02164, respondents concurred that payment data can be downloaded as well. According to the findings, ATMs that offer bill payment services: Customers can use their debit cards to pay bills straight from their accounts at specific I&M Bank ATMs.

Usually, utilities like phone, water, and electricity are included in the ATM bill paying service. Instant Receipts: Customers receive a printed or digital receipt for verification when they pay their bills at an ATM. Automated Payments: Using online or mobile banking, customers can schedule regular bill payments. By enabling automatic bill payment on due dates, this function helps to prevent late fines and service interruptions. Custom Scheduling: Customers can

designate the frequency and time of specific bill installments, such as quarterly or monthly. The bill payment services provided by I&M Bank PLC give clients an easy, safe, and effective solution to handle their recurring payments. Customers can pay for utilities, school fees, and other expenses using a variety of channels, such as branches, ATMs, and internet and mobile banking.

4.2.8 Transaction History of financial services delivery of I&M BANK PLC

By giving clients thorough, up-to-date insights into their account activity, I&M Bank PLC's transaction history service significantly improves the delivery of financial services. Access to a thorough transaction history is essential for managing one's own finances, running a business, and upholding transparency. Customer satisfaction, operational effectiveness, and general system trust are all enhanced by this service.

Table 4.11: Transaction History of financial services delivery of I&M BANK PLC

	N	Mean	Std. Deviation
Enhanced Customer Experience	317	4.1394	1.00545
Risk Management and Fraud Prevention	317	4.1394	1.00545
Improved Operational Efficiency	317	4.1030	1.07422
Regulatory Compliance	317	4.1030	1.07422
Data-Driven Decision Making	317	4.1273	1.03690
Customer Loyalty and Retention	317	4.1273	1.03690
Valid N (listwise)	317		

Source: Primary data, September (2024)

The transaction history of I&M BANK PLC's financial services delivery, as shown in table 4.11 above, showed that respondents believed that enhanced customer experience was important, with a mean score of 4.1394 and a standard deviation of 1.00545. The respondents' mean score of 4.1394 and standard deviation of 1.00545 indicated that they also highly agreed with risk management and fraud prevention. Respondents also strongly agreed that Improved Operational Efficiency with a mean score of 4.1030 and standard deviation of 1.07422.

The respondents' mean score for Regulatory Compliance was 4.1030, with a standard deviation of 1.07422, suggesting agreement. With a mean score of 4.1273 and a standard deviation of 1.03690, respondents concurred that data-driven decision making is important. Respondents agreed that client loyalty and retention are crucial, with a mean score of 4.1273 and a standard deviation of 1.03690. The findings show that the transaction history of I&M Bank PLC is an important resource that affects every aspect of providing financial services, from boosting operational performance and security to improving customer happiness. The bank may offer more specialized services, lower risks, and adhere to regulations by making effective use of transaction data, positioning itself as a dependable and innovative financial institution.

4.3 Effect ATM service to financial services delivery of I&M Bank PLC

The Automated Teller Machine (ATM) service significantly impacts the financial services delivery of I&M Bank PLC in multiple ways, enhancing customer convenience, operational efficiency, and the overall service experience

4.3.1 Increased Accessibility of I&M BANK PLC

I&M Bank PLC's attempts to make its financial services more accessible and easy for a greater number of individuals, both locally and regionally, are referred to as increased accessibility. This is accomplished through a variety of tactics, including increasing both digital and physical access, collaborating with outside service providers, and using technology to reach a larger clientele.

Table 4.12: Increased Accessibility of I&M BANK PLC

	N	Mean	Std. Deviation
Branch Network Expansion	317	4.4606	1.14496
ATM Network Growth	317	4.5515	1.07298
Customer Education and Financial Literacy	317	4.0242	1.33413
Use of Technology and Innovation	317	4.1273	1.31206
Partnerships with Financial and Non-financial Institutions	317	4.2606	1.33388
Valid N (listwise)	317		

Source: Primary data, September (2024)

Table 4.12 above demonstrates that Branch Network Expansion, with a mean of 4.4606 and standard deviation of 1.14496, was associated with improved accessibility of I&M BANK PLC. With a mean score of 4.5515 and a standard deviation of 1.07298, respondents also strongly agreed that ATM Network Growth should be rewarded with a bigger incentive. With a mean score of 4.0242 and a standard deviation of 1.33413, respondents also strongly agreed that financial literacy and customer education are important. With a mean score of 4.1273 and a standard deviation of 1.31206, respondents concurred that use of technology and innovation is important.

Between a mean score of 4.2606 and a standard deviation of 1.33388, respondents concurred that partnerships between financial and non-financial institutions and other individuals inside the firm are beneficial. I&M Bank PLC has taken a multipronged strategy to expanding accessibility, including digital and physical channels, strategic alliances, and a customer-centric mindset. By means of these endeavors, the bank has enhanced its service provision, broadened its customer base, and made banking more accessible to a wide variety of clients, so promoting increased financial inclusion and economic development in the areas in which it conducts business.

4.3.2 Convenience of I&M BANK PLC

ATMs (Automated Teller Machines) play a significant role in enhancing customer convenience for banks like I&M Bank PLC

Table 4.13: Convenience of I&M BANK PLC

	N	Mean	Std. Deviation
24/7 Access	317	4.4970	1.05706
Ease of Transactions	317	4.4909	1.06850
Cost Efficiency	317	4.4667	1.11822
Enhanced Security	317	4.4727	1.11292
Valid N (listwise)	317		

Source: Primary data, September (2024)

With a mean of 4.4970 and a standard deviation of 1.05706, table 4.13 above demonstrates that respondents agreed that I&M BANK PLC's convenience was available around-the-clock. A mean score of 4.4909 and a standard deviation of 1.06850 indicated that respondents likewise

strongly felt that transactions were easy. With a mean score of 4.4667 and a standard deviation of 1.11822, respondents likewise strongly agreed that. A mean score of 4.4727 and a standard deviation of 1.11292 indicated that respondents agreed with enhanced security. The findings suggested that I&M Bank PLC's plan to increase customer convenience and boost service effectiveness might include a major emphasis on growing and improving their ATM network.

4.3.3 Reduced Banking Costs of I&M BANK PLC

ATMs (Automated Teller Machines) can significantly contribute to reducing banking costs for I&M Bank PLC in several ways

Table 4.14: Reduced Banking Costs of I&M BANK PLC

	N	Mean	Std. Deviation
Reduced Branch Overhead	317	4.3879	1.04524
Reduced Transaction Costs	317	4.7636	.64289
Improved Cash Management	317	4.5758	.95094
Decreased Cash Handling Costs	317	4.5636	.98334
Cost-Effective Transactions	317	4.5212	1.02164
Valid N (listwise)	317		

Source: Primary data, September (2024)

With a mean of 4.3879 and a standard deviation of 1.04524, the respondents agreed that I&M BANK PLC's lower banking costs were a result of reduced branch overhead, as shown in table 4.14 above. With a mean score of 4.7636 and standard deviation of 0.64289, respondents also strongly agreed that reduced transaction costs improved transaction costs. With an average score of 4.5758 and a standard deviation of 0.95094, respondents also strongly agreed that improved cash management exists. A mean score of 4.5212 and a standard deviation of 1.02164 indicated that respondents agreed that cash handling costs have decreased. With a mean score of 4.5636 and standard deviation of 0.98334, respondents concurred that cost-effective transactions are essential. According to the findings, transactions made at ATMs typically cost the bank less than those conducted at other locations.

Table 4.15: Operational Efficiency of I&M BANK PLC

	N	Mean	Std. Deviation
Extended Service Hours	317	4.4909	1.05124
Increased Transaction Volume	317	4.4424	1.13348
Enhanced Customer Experience	317	4.4667	1.10174
Operational Cost Savings	317	4.7333	.89124
Data Collection and Analysis	317	4.4545	1.16585
Security and Risk Management	317	4.4485	1.16035
Reduced Transaction Costs	317	4.4606	1.14496
Valid N (listwise)	317		

Source: Primary data, September (2024)

With a mean of 4.4909 and a standard deviation of 1.05124, the operational efficiency of I&M BANK PLC is demonstrated in table 4.15 above, which also reveals that respondents believed that Extended Service Hours are important. Additionally, respondents highly agreed that increased transaction volume (mean score: 4.4424, standard deviation: 1.13348). With a mean score of 4.4667 and a standard deviation of 1.10174, respondents also strongly agreed that enhanced customer experience works. A mean score of 4.7333 and a standard deviation of 0.89124 indicated that respondents believed that operational cost savings indeed occur. A mean score of 4.4545 with a standard deviation of 1.16585 indicated that respondents approved with data collection and analysis.

With an average score of 4.4485 and a standard deviation of 1.16035, respondents concurred that security and risk management are important. With a mean score of 4.4606 and standard deviation of 1.14496, respondents concurred that reduced transaction costs were beneficial. It is claimed that I&M Bank PLC can increase operational effectiveness, reduce costs, and improve customer happiness by efficiently utilizing ATMs. The advantages of ATMs can be further maximized by placing them strategically in busy locations and integrating cutting-edge technologies.

Table 4.16: Speed transaction of I&M BANK PLC

	N	Mean	Std. Deviation
Instant Access	317	4.1394	1.00545
Reduced Waiting Times	317	4.1394	1.00545
Efficiency in Transaction Processing	317	4.1030	1.07422
Automated Transactions	317	4.1030	1.07422
High Transaction Throughput	317	4.1273	1.03690
Enhanced User Interface	317	4.1273	1.03690
Valid N (listwise)	317		

Source: Primary data, September (2024)

I&M BANK PLC's Speed transaction showed Instant Access with a mean of 4.1394 and standard deviation of 1.00545, as shown in table 4.16 above. A mean score of 4.1394 and a standard deviation of 1.00545 indicated that respondents likewise strongly agreed that waiting times should be reduced. Additionally, respondents strongly believed that transaction processing efficiency was important, as indicated by their mean score of 4.1030 and standard deviation of 1.07422. The average score of 4.1030 and the standard deviation of 1.07422 among respondents indicated that they approved with automated transactions. With a mean score of 4.1273 and a standard deviation of 1.03690, respondents concurred that high transaction throughput was important.

A mean score of 4.1273 with a standard deviation of 1.03690 indicated that respondents agreed with the statement "Enhanced User Interface." According to the findings, ATMs enable users to do instantaneous activities like cash withdrawals, deposits, and balance inquiries without having to wait in line or speak with bank employees. In contrast to I&M Bank PLC and traditional in-branch banking, this speeds up the transaction process. By lowering wait times and increasing service accessibility, a strategically placed network of ATMs with cutting-edge features can greatly increase transaction speed and efficiency, which benefits the bank and its clients.

Table 4.17: Correlations between ATM service and financial services delivery of I&M BANK PLC

		Cash/Cheque deposit of financial services delivery of I&M BANK PLC	Bill Payments of financial services delivery of I&M BANK PLC	Increased Accessibility of I&M BANK PLC	Speed transaction of I&M BANK PLC
Cash/Cheque deposit of financial services delivery of I&M BANK PLC	Pearson Correlation	1	.814**	.997**	.899**
	Sig. (2-tailed)		.000	.000	.000
	N	317	317	317	317
Bill Payments of financial services delivery of I&M BANK PLC	Pearson Correlation	.814**	1	.819**	.927**
	Sig. (2-tailed)	.000		.000	.000
	N	317	317	317	317
Increased Accessibility of I&M BANK PLC	Pearson Correlation	.997**	.819**	1	.902**
	Sig. (2-tailed)	.000	.000		.000
	N	317	317	317	317
Speed transaction of I&M BANK PLC	Pearson Correlation	.899**	.927**	.902**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	317	317	317	317

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

[-1.00 - 0.00[: Negative correlation;

[0.00 - 0.25 [: Positive and very low correlation;

[0.25 - 0.50 [: Positive and low correlation;

[0.50 - 0.75 [: Positive and high correlation and

[0.75 - 1.00] : Positive and very high correlation

The relationship between ATM service and the provision of financial services by I&M BANK PLC is shown in table 4.17. The respondents' number is 317, and the significant level is 0.01. The findings show that the independent variable has a high and positive correlation with the

dependent variable, with values of 0.814, 0.997, 0.899, 0.927, 0.902, and 0.819, and the p-value is 0.000, or less than 1%. The researcher came to the conclusion that the variables are associated when the p-value was below the significant level. This indicates that I&M BANK PLC's provision of financial services and ATM service are significantly correlated.

4.4 Hypothesis Testing

Table 4.18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.997[a]	.994	.994	.10460

Predictors: (Constant), Cash/Cheque deposit of financial services delivery of I&M BANK PLC and Bill Payments of financial services delivery of I&M BANK PLC

Table 4.19: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	148.888	2	74.444	6804.396	.000[b]
	Residual	.930	85	.011		
	Total	149.818	87			

a. Dependent Variable: Increased Accessibility of I&M BANK PLC and Speed transaction of I&M BANK PLC

b. Predictors: (Constant), Cash/Cheque deposit of financial services delivery of I&M BANK PLC and Bill Payments of financial services delivery of I&M BANK PLC.

Table 4.20: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.131	.056		-2.353	.021
	Cash/Cheque deposit of financial services delivery of I&M BANK PLC	1.007	.009	.996	116.539	.000
	Bill Payments of financial services delivery of I&M BANK PLC	.021	.010	.018	2.161	.034

a. Dependent Variable: Increased Accessibility of I&M BANK PLC and Speed transaction of I&M BANK PLC

With a mean of 4.3879 and a standard deviation of 1.04524, the Bill Payments of Financial Services Delivery of I&M BANK PLC survey confirmed the premise about respondents' agreement with electronic execution. A mean score of 4.7636 and a standard deviation of 0.64289 indicated that respondents likewise strongly felt that installment payments were convenient. With a mean score of 4.5758 and a standard deviation of 0.95094, respondents also strongly agreed that it would be beneficial to store the biller information for later use. With a mean score of 4.5212 and a standard deviation of 1.02164, respondents concurred that payment data can be downloaded as well.

According to the findings, ATMs that offer bill payment services: Customers can use their debit or credit cards to pay bills straight from their accounts at specific I&M Bank ATMs. Utility Payments: Usually, utilities like phone, water, and electricity are included in the ATM bill paying service. Instant Receipts: Customers receive a printed or digital receipt for verification when they pay their bills at an ATM. Automated Payments: Using online or mobile banking, customers can schedule regular bill payments. By enabling automatic bill payment on due dates,

this function helps to prevent late fines and service interruptions. Custom Scheduling: Customers can designate the frequency and time of specific bill installments, such as quarterly or monthly.

Branch Network Expansion was shown by I&M BANK PLC's improved accessibility, with a mean of 4.4606 and a standard deviation of 1.14496. With a mean score of 4.5515 and a standard deviation of 1.07298, respondents also strongly agreed that ATM Network Growth should be rewarded with a bigger incentive. With a mean score of 4.0242 and a standard deviation of 1.33413, respondents also strongly agreed that financial literacy and customer education are important. With a mean score of 4.1273 and a standard deviation of 1.31206, respondents concurred that use of technology and innovation is important.

Between a mean score of 4.2606 and a standard deviation of 1.33388, respondents concurred that partnerships between financial and non-financial institutions and other individuals inside the firm are beneficial. I&M Bank PLC has taken a multipronged strategy to expanding accessibility, including digital and physical channels, strategic alliances, and a customer-centric mindset. Through these initiatives, the bank has increased its reach, enhanced service quality, and made banking more accessible to a wide variety of clients, all of which have aided in the expansion of financial inclusion and economic growth in the areas in which it conducts business.

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CHAPTER 5: SUMMARY, CONCLUSION, RECOMMENDATION AND SUGGESTIONS

5.0 Introduction

The summary, conclusion, recommendation, and ideas for additional research are included in this paper. The conclusion was overwhelmed by the study's findings. Furthermore, the study's goals were founded on guiding principles for data analysis, which produced the conclusion, recommendations, and ideas for additional research.

5.1 Summary of findings

Four main goals guided the researcher's summary of this study: analyzing the services provided by ATMs at I&M BANK PLC, assessing the efficacy of those services, investigating customer issues encountered when utilizing I&M BANK PLC's ATM services, analyzing the impact of ATM services on the company's financial services delivery, and determining the connection between ATM services and I&M BANK PLC's financial services delivery.

5.1.1 To examine services offered by ATM at I&M BANK PLC

With a mean of 4.3879 and a standard deviation of 1.04524, the researcher's analysis of respondents' perceptions of the cash withdrawal of I&M BANK PLC's financial services delivery revealed that respondents agreed that the withdrawal from agents lowers I&M BANK's infrastructure costs. A mean score of 4.7636 and a standard deviation of 0.64289 indicated that respondents likewise strongly agreed that removing agents decreased computational mistakes. With a mean score of 4.5758 and a standard deviation of 0.95094, respondents also strongly agreed that removing agents from the situation aids in monitoring safety precautions.

With a mean score of 4.5212 and standard deviation of 1.02164, respondents concurred that I&M BANK PLC provides a paperless transaction method. The findings suggested that I&M Bank offers agency banking, which allows clients to take out cash from licensed banking representatives. As a result, areas with fewer bank branches can now access financial services. Agent sites, which are usually more accessible in distant places, allow customers to withdraw smaller sums. Customers can take out cash from ATMs whenever they choose, giving them

flexibility outside of regular business hours. Cash withdrawals are a simple way for clients who receive business payments, pensions, or wages into their I&M Bank accounts to access their money.

With a mean score of 3.9500 and a standard deviation of 1.57196, respondents' perceptions of the cash/check deposit and financial services delivery of I&M BANK PLC showed that they strongly agreed with ATM cash deposits. Respondents also strongly agreed that Mobile Banking Deposits (Through Partners) with a mean score of 4.1000 and standard deviation of 1.16529. With a mean score of 4.2500 and a standard deviation of 0.91047, respondents likewise strongly agreed that branch check deposits existed. With a mean score of 4.4000 and a standard deviation of 0.75394, respondents also strongly agreed that electronic payment methods are excellent. Respondents also highly agreed that deposit limitations & identification with a mean score of 4.5500 and standard deviation of 0.75915.

It is implied that I&M Bank PLC has enabled cash deposit functionality on a few ATMs, enabling customers to deposit funds into their accounts even after regular business hours. Additionally, I&M Bank frequently collaborates with mobile money services, enabling customers to transfer funds from their mobile wallet to their I&M Bank account. Customers can deposit checks in person at any I&M branch by filling out a check deposit slip and handing the check to the teller. After then, the check is conducted for clearing and Additional identification or compliance with anti-money laundering (AML) requirements may be necessary for cash deposits above specific thresholds.

Transaction History of financial services delivery of I&M BANK PLC indicated that the respondents agreed that Enhanced Customer Experience with a mean of 4.1394 and standard deviation of 1.00545. Respondents also strongly agreed that Risk Management and Fraud Prevention with a mean score of 4.1394 and standard deviation of 1.00545. Respondents also strongly agreed that Improved Operational Efficiency with a mean score of 4.1030 and standard deviation of 1.07422. Respondents agreed that Regulatory Compliance with a mean score of 4.1030 and standard deviation of 1.07422. Respondents agreed that Data-Driven Decision Making with a mean score of 4.1273 and standard deviation of 1.03690. Respondents agreed that Customer Loyalty and Retention with a mean score of 4.1273 and standard deviation of 1.03690.

The finding show that the transaction history is a vital asset for I&M Bank PLC, impacting every aspect of financial service delivery from improving customer experience to bolstering security, risk management, and operational efficiency. By leveraging transaction data effectively, the bank can offer more tailored services, mitigate risks, and maintain regulatory compliance, positioning itself as a trusted and innovative financial institution.

5.1.2 To analyse the effect ATM service to financial services delivery of I&M BANK PLC

Under the objective the researcher examined whether the respondents said that the increased accessibility of I&M BANK PLC indicated that Branch Network Expansion with a mean of 4.4606 and standard deviation of 1.14496. Respondents also strongly agreed that ATM Network Growth with a higher bonus with a mean score of 4.5515 and standard deviation of 1.07298. Respondents also strongly agreed that Customer Education and Financial Literacy with a mean score of 4.0242 and standard deviation of 1.33413. Respondents agreed that Use of Technology and Innovation with a mean score of 4.1273 and standard deviation of 1.31206. Respondents agreed that Partnerships with Financial and Non-financial Institutions with other persons inside the company with a mean score of 4.2606 and standard deviation of 1.33388. I&M Bank PLC has adopted a multifaceted approach to increasing accessibility, leveraging physical and digital channels, strategic partnerships, and a customer focus. Through these efforts, the bank has improved service delivery, expanded its reach, and made banking more convenient for a diverse range of customers, thus contributing to greater financial inclusion and economic growth in the regions it operates.

5.2 Conclusion

From the findings of the study presented in the previous chapter and summarized above, the researcher concludes that the ATMs (Automated Teller Machines) have played a significant role in enhancing the financial service delivery of I&M Bank PLC, contributing to its operational efficiency and customer satisfaction.

I&M Bank's ATMs provide customers with 24/7 access to essential banking services, such as cash withdrawals, balance inquiries, and fund transfers. This convenience eliminates the need for customers to visit bank branches during working hours, improving service accessibility.

5.2.1 To examine services offered by ATM at I&M BANK PLC

I&M Bank supports agency banking where customers can withdraw cash at authorized banking agents. This extends banking services to regions with fewer bank branches. Customers can withdraw smaller amounts at agent locations, which are typically more accessible in remote areas. ATMs allow customers to withdraw cash at any time, providing flexibility beyond traditional banking hours and Customers who receive salaries, pensions, or business payments into their I&M Bank accounts can easily access these funds through cash withdrawals.

I&M Bank PLC has enabled selected ATMs with cash deposit functionality, allowing customers to deposit money into their account even after normal banking hours, &M Bank often partners with mobile money services where customers can transfer money from their mobile wallet to their I&M Bank account, Customers can walk into any I&M branch and deposit cheques by completing a cheque deposit slip and submitting the cheque to the teller. The cheque is then processed for clearing and Cash deposits over certain limits may require additional identification or adherence to anti-money laundering (AML) regulations.

The majority of respondents strongly agreed that I&M Bank ATMs offer a mini-statement feature. Customers can insert their debit card into the ATM, select the mini-statement option, and the ATM will print a slip showing their latest transactions, I&M Bank offers SMS banking services that allow customers to receive a mini-statement on their mobile phones. By sending a designated SMS code to the bank's number, customers can receive a list of their recent transactions via text message, Customers can request a printed account statement at any I&M Bank branch. The statement will provide details of all transactions over a specific period (usually monthly, quarterly, or as per customer request). Customers may need to fill out a form or provide identification when requesting statements in person and &M Bank offers internet banking services (iClick) through which customers can access their full account statements online. Customers can log in to their online banking account, navigate to the statement section, and view or download their transaction history for any selected period. I&M Bank PLC provides flexible and convenient options for customers to access both full account statements and mini statements, enhancing their ability to monitor their finances. Through branch services, mobile and internet banking, and ATM channels, customers can choose the method that best suits their needs for managing account information

The majority of respondent strongly agreed the mobile app allows customers to check balances in real time, transfer funds, and manage multiple accounts. This app is available for both Android and iOS devices. I&M Bank's ATM network allows customers to check their account balances by inserting their ATM or debit card, through both the mobile banking app and banking, customers can directly top up airtime for various mobile networks from their bank accounts. This is particularly useful for prepaid customers who need quick access to airtime without visiting a store and I&M Bank allows customers to pay for utilities like electricity, water, or internet services using their online or mobile banking platforms

PIN change service offered by I&M Bank PLC significantly contributes to the delivery of secure, efficient, and customer-centric financial services. By offering customers the ability to change their PINs quickly and securely through multiple channels, I&M Bank enhances security, boosts customer confidence, and drives digital adoption. Additionally, this service supports the bank's operational efficiency, risk management, and regulatory compliance efforts, while contributing to an improved overall user experience.

ATMs with Bill Payment Services: Selected I&M Bank ATMs allow customers to pay bills directly from their accounts using their debit or credit cards, Utility Payments: The ATM bill payment service typically includes utilities like electricity, water, and telephone services, Immediate Receipts: After making a bill payment at an ATM, customers receive a printed or digital receipt for confirmation. Automated Payments: Customers can set up recurring bill payments through online banking or mobile banking. This feature allows bills to be paid automatically on their due dates, avoiding late fees or service disruptions. Custom Scheduling: Users can specify when and how often they want certain bills to be paid, such as monthly or quarterly payments. I&M Bank PLC's bill payment services offer customers a convenient, secure, and efficient way to manage their regular payments. With multiple channels, including mobile and online banking, ATMs, and branches, customers can pay for utilities, school fees, insurance premiums, and more at their convenience. These services are tailored for both individual and corporate customers, helping them save time and avoid the hassle of missed or late payments.

The transaction history is a vital asset for I&M Bank PLC, impacting every aspect of financial service delivery from improving customer experience to bolstering security, risk management,

and operational efficiency. By leveraging transaction data effectively, the bank can offer more tailored services, mitigate risks, and maintain regulatory compliance, positioning itself as a trusted and innovative financial institution.

5.2.2 To analyse the effect ATM service to financial services delivery of I&M BANK PLC

I&M Bank PLC has adopted a multifaceted approach to increasing accessibility, leveraging physical and digital channels, strategic partnerships, and a customer focus. Through these efforts, the bank has improved service delivery, expanded its reach, and made banking more convenient for a diverse range of customers, thus contributing to greater financial inclusion and economic growth in the regions it operates.

I&M Bank PLC, focusing on expanding and optimizing their ATM network could be a key component of their strategy to enhance customer convenience and improve service efficiency.

The Transactions carried out at ATMs are generally less costly for the bank compared to those performed at a branch. The cost of maintaining an ATM is typically lower than that of a full-service branch, ATMs handle a variety of transactions, such as cash withdrawals, deposits, and balance inquiries, which reduces the volume of routine tasks performed by bank staff. This allows employees to focus on more complex customer service needs and strategic activities

I&M Bank PLC, leveraging ATMs effectively can lead to improved operational efficiency, cost savings, and enhanced customer satisfaction. The strategic deployment of ATMs in high-traffic areas and the integration of advanced features can further optimize their benefits.

ATMs allow customers to complete transactions such as cash withdrawals, deposits, and balance inquiries instantly, without waiting in line or needing to interact with bank staff. This expedites the transaction process compared to traditional in-branch banking and I&M Bank PLC, implementing a well-distributed network of ATMs with advanced capabilities can significantly enhance the speed and efficiency of transactions, benefiting both the bank and its customers by reducing wait times and improving service accessibility.

5.3. Suggestion

The data cited above lend credence to several suggestions that the government should suitably carry out a plan to encourage the public and entrepreneurs to utilize automated teller machines, thereby boosting their effectiveness and efficiency. To strengthen the nation's economy, the government should enforce rules against ATM fraudsters and scammers. To ascertain whether or not an unlawful transaction has taken place, I&M Bank PLC should also make use of specialist software that logs relevant data on ATM cards.

Therefore, it is imperative that I&M Bank PLC's management act quickly to resolve issues before it's too late and they lose clients to rival banks. Based on the study's findings, it is thought that the following suggestions will assist banks and clients in fully utilizing ATMs as a conduit for service delivery. In order for clients to fully utilize the ATM, banks need provide new, competitive, and user-friendly systems and applications. Furthermore, banks should take the lead in creating the infrastructure that will enable their clients to use ATMs conveniently as well as in offering a compelling enough incentive for users to stick with the self-service technology overall.

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APPENDICES

QUESTIONNAIRE FOR RESPONDENTS

KIGALI INDEPENDENT UNIVERSITY (ULK)

Kigali – Rwanda

Dear respondents,

I am NGIRUWONSANGA Cleophas, the student from Kigali Independent university doing master's degree in Business Administration. This questionnaire aims to collect data to be used in the study of "**EFFECT ATM SERVICE TO FINANCIAL SERVICES DELIVERY, CASE OF I&M BANK PLC, PERIOD: 2020-2023**". You are kindly requested to provide answers to these questions as honestly and precisely as possible. The information you will provide will be treated as confidential and will be used only for the purpose of this study.

Please tick [✓] where appropriate and fill the required information in these spaces provided.

QUESTIONNAIRE DESIGNED TO THE CUSTOMERS OF I&M BANK PLC

SECTION A: Profile or description of respondents

Distribution of respondents by sex. Please tick (✓)

Male ☐

Female ☐

Distribution of respondents by ages. Please tick (✓)

18-25 ☐

26-35 ☐

36-45 ☐

46-55 ☐

56 and above ☐

Distribution of respondents by working experience Please tick (✓)

1 year ☐

2 years ☐

2-5 years ☐

5-8 years ☐

8-10years ☐

Above 10 years ☐

Education levels of the respondents ,Please tick (✓)

PhD level ☐

Post graduate level ☐

Under graduate level ☐

Primary Level ☐

Advanced diploma level ☐

Please tick the right answer

SECTION B : To examine services offered by ATM at I&M BANK PLC

Please tick the right answer

1. Cash Withdrawal of financial services delivery of I&M BANK PLC Please tick the right answer (✓)

Nº	**Statements:**	**1**	**2**	**3**	**4**	**5**
1	Withdrawal from agents reduces infrastructure costs of I&M BANK PLC					
2	Withdraw from agents reduced computational errors					
3	Withdraw from agents helps to watch over safety measures					
4	It offers a paperless mode of transaction within in I&M BANK PLC					

2. Cash/Cheque deposit of financial services delivery of I&M BANK PLC Please tick the right answer (✓)

Nº	**Statements:**	**1**	**2**	**3**	**4**	**5**
1	ATM Cash Deposits					
2	Mobile Banking Deposits (Through Partners)					
3	Branch Cheque Deposits					
4	Electronic Payment Options					

5	Deposit Limits & Identification					

3. Statement/Mini statement of account of financial services delivery of I&M BANK PLC

Please tick the right answer (✓)

Nº	**Statements:**	**1**	**2**	**3**	**4**	**5**
1	ATM Mini Statement					
2	Mobile Banking (I&M App)					
3	SMS Banking					
4	Branch Statements					

4. Balances and Recharge services of financial services delivery of I&M BANK PLC Please tick the right answer (✓)

Nº	**Statements:**	**1**	**2**	**3**	**4**	**5**
1	Mobile Banking (I&M Mobile App)					
2	ATM Balance Inquiry					
3	Airtime Recharge					
4	Utility Bill Payments					

5. Account Transfer of financial services delivery of I&M BANK PLC Please tick (✓)

Nº	**Statements:**	**1**	**2**	**3**	**4**	**5**
1	Convenience and Accessibility					
2	Increased Efficiency in Financial Transactions					
3	Cost-Effective Transactions					
4	Improved Financial Management					
5	Enhanced Customer Satisfaction and Retention					
6	Facilitating Digital Banking Growth					
7	Enhanced Security and Fraud Prevention					

6. PIN Change of financial services delivery of I&M BANK PLC Please tick (✓)

Nº	**Statements:**	**1**	**2**	**3**	**4**	**5**
1	Enhanced Security					

2	Improved Customer Confidence and Trust					
3	Convenience and Accessibility					
4	Supports Digital Banking Adoption					
5	Minimizing Card and Account Misuse					
6	Operational Efficiency					
7	Compliance with Security Regulations					
8	Risk Management and Fraud Prevention					
9	Improved User Experience					

6. Bill Payments of financial services delivery of I&M BANK PLC Please tick (✓)

Nº	**Statements:**	**1**	**2**	**3**	**4**	**5**
1	Electronic execution					
2	Convenient for installments					
3	East to save the biller information for reuse at a future time					

6. Transaction History of financial services delivery of I&M BANK PLC Please tick (✓)

Nº	**Statements:**	**1**	**2**	**3**	**4**	**5**
1	Enhanced Customer Experience					
2	Risk Management and Fraud Prevention					
3	Improved Operational Efficiency					
4	Regulatory Compliance					
5	Data-Driven Decision Making					
6	Customer Loyalty and Retention					

SECTION C: To analyse the effect ATM service to financial services delivery of I&M BANK PLC

a) Increased Accessibility of I&M BANK PLC Please tick (✓)

	Statement	**1**	**2**	**3**	**4**	**5**
1	Branch Network Expansion					

2	ATM Network Growth					
3	Customer Education and Financial Literacy					
4	Use of Technology and Innovation					
5	Partnerships with Financial and Non-financial Institutions					

b) Convenience of I&M BANK PLC Please tick the right answer (✓)

	Statement	**1**	**2**	**3**	**4**	**5**
1	24/7 Access					
2	Ease of Transactions					
3	Cost Efficiency					
4	Enhanced Security					

c) Reduced Banking Costs of I&M BANK PLC Please tick the right answer (✓)

	Statement	**1**	**2**	**3**	**4**	**5**
1	Reduced Branch Overhead					
2	Reduced Transaction Costs					
3	Improved Cash Management					
4	Decreased Cash Handling Costs					
5	Cost-Effective Transactions					

d) Operational Efficiency of I&M BANK PLC Please tick the right answer (✓)

	Statement	**1**	**2**	**3**	**4**	**5**
1	Extended Service Hours					
2	Increased Transaction Volume					
3	Enhanced Customer Experience					
4	Operational Cost Savings					

5	Data Collection and Analysis					
6	Security and Risk Management					
7	Reduced Transaction Costs					

e) Speed transaction of I&M BANK PLC Please tick the right answer (✓)

No		**1**	**2**	**3**	**4**	**5**
1	Instant Access					
2	Reduced Waiting Times					
3	Efficiency in Transaction Processing					
4	Automated Transactions					
5	High Transaction Throughput					
6	Enhanced User Interface					

Thank you very much for your collaboration