THE EFFECT OF DIGITAL MIGRATION ON THE FINANCIAL PERFORMANCE

OF COMMERCIAL BANKS IN UGANDA

CASE STUDY: STANBIC BANK MASAKA

NAMAZZI DOROTHY

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UGANDA MARTYRS UNIVERSITY

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AN UNDER GRADUATE DISSERTATION PRESENTED TO

THE FACULTY OF BUSINESS ADMINISTRATION AND MANAGEMENT IN

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OF THE OF A BACHELOR'S DEGREE OF BUSINESS ADMINISTRATION AND

MANAGEMENT OF UGANDA MARTYRS UNIVERSITY

DEDICATION

This research paper is dedicated to my two-lovely daughters Patricia and Priscilah. To my mum M/S Nasuuna Annette and my siblings. It is also dedicated to my late Dad Mr. Mukasa Leonard who gave his all in seeing that I entered and completed the course, but did not get the chance to live and witness the result of his dedication.

ACKNOWLEDGEMENT

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LIST OF ABBREVIATIONS

- ATMs   -Automated Teller Machines

- BOU   -Bank Of Uganda

- CAMEL   -Capital Adequacy, Asset quality, Management,

    Earnings and Liquidity

- CEO   -Chief Executive Officer

- CPU   - Central Processing Unit

- CVI   -Content Validity Index

- GDP   -Gross Domestic Product

- GSMA   -Global System for Mobile Communications Association

- M-banking   -Mobile Banking

- MIMS   -Main Investment Management Segments

- MMS   -Mobile Money Services

- NIAT   -Net Income After Tax

- NWSC   -National Water and Sewerage Corporation

- PC   - Personal Computer

- ROA   -Return on Assets

- ROD   -Return on Deposits

- ROE   -Return on Equity

- SBUL   -Stanbic Bank Uganda Limited

- USSD   -Unstructured Supplementary Service Data

- UCB   -Uganda Commercial Bank

- UCC   -Uganda Communication Commission

- URA   -Uganda Revenue Authority

ABSTRACT

This study was carried out to obtain the effect of Digital migration on the financial performance of commercial banks in Uganda a case study of Stanbic bank Masaka Branch which is found in Masaka District, Masaka Municipality.

The researcher's major focus was on investigating the effect of digital migration on financial performance of commercial banks in Uganda. This was based on the research objectives and questions.

The study was guided by the diffusion of innovation and the Transaction Cost Innovation theories. Descriptive case study research design was used. The design chosen also helped to clearly bring out the relationship between the independent variables (Digital Migration solutions) and the dependent variables financial performance).

The study population of the study area was forty (40) employees but the sample size selected wasthirty-five(35). This was sampled using krejciemorgan (1970) table. The data was collected using questionnaires and interviews.

Data was analysed using SPSS, correlation and regression methods. The findings of the research basing on the questionnaires issued and interviews held showed that digital migration solutions have a positive effect on financial performance of commercial banks in Uganda.

The findings showed that customers of the Stanbic bank Masaka branch preferred using digital migration solutions that is ATMs, Mobile banking and Online banking because of the convenience they offer, low transaction costs, they are quicker and efficient. The bank appreciated the digital solutions because operational costs reduced considerably, better customer service, increased ROA, ROE and ROD. The regression method showed a significant relationship between the independent and dependent variables. It was also concluded thatan improvement in the digital migration generally leads to improved financial performance of commercial banks in Uganda.

The recommendation to commercial banks is to create more awareness to the customers about the digital solutions and to give constant training to the employees in case of any system upgrades.

CHAPTER ONE

GENERAL INTRODUCTION

1.0 Introduction

The thesis focuses on the relationship between digital migration and financial performance of commercial banks. This chapter also covers the background of the study, research problem, purpose of the study, objectives of the study, research questions, scope of the study which includes the Conceptual scope and Geographical scope, the significance and justification of the study.

1.1 Background of the Study

Banking and financial sector has undergone radical changes and improvements in the last few years and is in a constant state of development. Digitalization has brought the banking industry new business models, development concepts and areas of improvements, from internet banking to monetary transactions (Jonathan McMillan2014).

These new implementations to the financial sector require the employees to be aware of the rapidly changing work environment and the overall state of change in the financial sector (Karl Mehta &Carol Realini 2015). During the next decades, banking and financial sectors are developing faster than ever and therefore digitalization is at a key position on how to gain market advantage against rivalling banks (Sankar Krishnan 2014) .With the new age of digitalization in the banking sector, the daily operations are becoming faster, cheaper and easier for customers to use and therefore every bank is grasping to adjust their own operations to fit the needs of a demanding customer (Abbas F. 2007).The researcher also agrees with all the above scholars because digital migration is currently a pillar of financial progress for developing countries and financial institutions.

Given this growing trend commercial banks are logically focusing on refining their channel banking strategies. According to David, F.D (1989) this means that the quicker they do so the better their chances of grabbing the lion's share of the market base. Digital migration is expected to improve the 4Cs cost, convenience, control and customer experience.

DeYoung, R. (2005) notices that it is for this fright of losing in the race that the banking industry is going through this radical transition of digitalisation.

In today's economic set-up, differentiated and delightful customer experience has become more important than just providing financial services. Frequently, new devices or technologies are providing various customer touch points. As of today, various banks are working in their silos, but it's time to break their silos and renovate the banking experience by instigating the digital migration strategy (Gillian Tett 2014).

The main objective of this thesis is to focus on and study the theoretical framework of digital migration in the banking sector. The study has been done in association to Stanbic bank which is one of the biggest financial institutions operating in Uganda.

1.1.1 Back ground about Stanbic bank Uganda

Stanbic Bank Uganda Limited is incorporated in Uganda and is a licensed commercial bank. The Bank is a public limited liability company and was listed on the Main Investment Market Segment (MIMS) of the Uganda Securities Exchange on 25th January 2007.Stanbic Bank Uganda Limited is one of the largest banks in Uganda by assets and market capitalisation. It offers a full range of banking services through two major business units: Personal and Business Banking and Corporate and Investment Banking. The Bank has points of representation throughout Uganda. Through strategic relationships with the Standard Bank Group, the Bank has key connections to emerging markets globally. Its vision being; ''*To be*

the leading financial services organisation in, for and across Africa, Delivering Exceptional client experiences and superior value''. Purpose statement is ''*Africa is our home and we drive her growth''*(SBU ANNUAL REPORT 2016).

1.1.2 Historical background

Historically, the banking industry has evolved as the result of broader political, economic, legal or regulatory, social and technological forces (Thomas D. Simpson 2014). While the recent financial crisis and resulting, regulatory reforms continue to play an important role in reshaping the structure and operating models of banks and markets more broadly, technology-driven innovation will lead to much broader, deeper and more rapid transformations in future years.

Bank branches in the United Kingdom did not open every day. Opening hours were designed to coincide with local market days. Inside the bank, customers would have to approach a line of clerks standing behind a counter surrounded by large ledger books that would be used to record the day's business. The range of services used to be limited to providing business advice, receiving customer deposits, authorising withdrawals and cashing cheques. At the end of every day the various books would be meticulously inspected to ensure that every penny that came into and left the branch was accounted for (Skinner, C. (2014). This clearly speaks to the operations of the former UCB.

John H. Wood (2005) also explains how banking was innovated in the United Kingdom and asserts that digital migration started in the 1960s and 1970s which saw the introduction of new technology that made banks more efficient. Staff no longer had to manually update banking records; instead they could be processed by central computers. The number of customers visiting bank branches started to decline in the 1990s, with the introduction of

telephone banking and a far more extensive network of ATMs. Outstandingly, advancement in technology and the migration of customers to use digital solutions, financial service delivery has improved in commercial banks in Uganda.

Globally, digital migration appeared by the telephone banking in the first time in 1980s and it increased when internet was used at homes. In these years, banking and finance companies in Europe and U.S.A started to work on the concept of the "home banking". Since computer and internet were not common previously, it was directed to the telephone banking. The eminent banks such as Citibank and Wells Fargo started to provide this service to their customers (Berger, A., and Mester, L. (2003)

Jeffry Pilcher,CEO, President and Publisher ofThe Financial Brand shows the history of digital migration since 1983.He states that since the early 1980s, innovations in online banking have made it easier for people to manage their money. Banks are offering more and more tools, information and access to financial services to help customers and banks achieve their financial goals.

Lawrence Bategeka& Luka JovitaOkumu (2010) clearly show that Uganda's banking sector has evolved from the first commercial bank established in 1906 which was the National Bank of India which later became the Grindlays Bank and is now the Stanbic Bank. Before the country's independence in 1962, the banking sector was dominated mainly by foreign owned commercial banks. After restructuring in the 1990s, Uganda's banking sector has steadily improved and is now stable and well capitalised.

Global System for Mobile Communications Association (GSMA) asserts that at the end of 2015, 2.5 billion individuals across the developing world were accessing the internet through

mobile devices, a figure that will increase by more than 1.3 billion by 2020.According to a study released by GSMA and the latest Mobile Economy report reveals how the increased use of smart phones and high-speed connectivity is enabling innovation in areas such as artificial intelligence and driving the digital migration mostly in financial institutions.

1.1.3 Theoretical background

Theoretically the research was guided by the diffusion of innovation and the Transaction Cost Innovation theory**.** The theories reviewed inform the source of the variables of the study and the interactions between the dependent and independent variables.

The diffusion of Innovation theory is by Rogers E.M. (2010) and the theory was adopted by the researcher because digital migration is an innovation in the banking sector whose diffusion rate into the systems has to be considered. The innovation decision process is when the individual passes from first knowledge of an innovation to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision. The researcher adopted the theory to analyse the adoption rate of the innovation and the effect it has on financial performance of the case study and if there is low rate of diffusion, then the researcher finds challenges by the users.

The research was also guided by the transaction cost innovation theory pioneered by Niehans (2006) that advocated that the dominant factor of financial innovation is the reduction of transaction cost, and in fact, financial innovation is the response of the advance in technology which causes the transaction cost to reduce. The reduction of transaction cost can stimulate financial innovation and improvement of financial service. The theory is relevant for this research because Transaction Costs Innovation in this context is the use of Digital migration solutions which can substantially reduce the bank's transaction costs as it enables efficient

coordination, management and use of information. Consequently, reduction of operation costs through ATMs, Online banking and mobile banking may influence growth in profitability for the bank

1.1.4 Contextual background

Digital migration is aggressively turning out to have a great impact on the financial performance of commercial banks in Uganda. The banks are using it as a selling tool for their products and services. For successful banks within the industry this has become a major determinant for profitability, however some challenges are hindering the commercial banks from reaping from the innovation due to the adoption rate of the customers, funds to invest in the solutions, the skills of human resource and most probably the inefficiency in IT (McKnight, etal. 2002).

Technology-driven innovation is compelling change within the banking industry both internally (bank-specific) and externally (industry-specific). To respond to changing customer expectations and new technological innovations, banks began with a focus on digital experience capabilities, including web, mobile and social (T.H Davenport 2003). According to Gillian Tett (2014) as digital capabilities mature, new technologies emerge and customer expectations continue to evolve, banks are extending their transformation efforts from digitizing narrowly targeted functions to the broader digitization of the enterprise. These changes are resulting in expanded financial inclusion, improved internal operations and transformations to the banking value chain.

Finally, the ultimate purpose of this research study is to provide various commercial banks with a rich understanding of the benefits, and importance of digital migration to the financial performance of commercial banks.

1.1.5 Conceptual background

Digital is any technology that connects people and machines with each other or with information. Digital migration can be defined as the use of digital technologies to create new business models and to provide new revenue and value-producing opportunities. It is the process of moving into a digital business and the integration of digital technologies into everyday life. (Gartner 2016)

Fitzgerald (1991) defines financial performance as the firm's ability to produce and serve what the market requires at time and efficiency which means meeting the objectives at the lowest possible cost with the highest possible benefit. To assess performance, the managers use actions designed to generate sustainable long term improvements.

Keown, etal (2002) define financial performance as a measure of how well a firm can use assets from its primary mode of business and generate revenues. They continue to assert that financial performance is also used as a general measure of a firm's overall financial health over a given period of time and it is one of major indicator of organisational performance.

1.2 Problem statement

The introduction of a myriad of mobile money services (MMS) to customers has become common in the recent years as a way of gaining competitive advantage (Nasikye 2009). The roll out of these services in Uganda has generated a lot of interest among various players in the financial sector of the economy. To attain competitive advantages and to manage their operational costs, commercial banks have been at the forefront of adopting digital technology and integrating it into their core operations. Digital solutions like ATMs, Mobile banking and online banking. These platforms have made basic financial services more accessible as well as reducing the bank's own overheads and transaction related costs (Munaye, 2009).

Commercial banks are entering partnerships with telecom companies and internet providers In Uganda such that there is a collaboration to boost digital migrations Tchouassi, G. (2012), In addition, today many people in Uganda are still without effective access to digital services and this may have also affected the financial performance of commercial banks.

Globally, Caprio etal. (2005) evaluated the factors that influence the adoption of mobile banking in Malaysia. Locally here in Uganda, the studies done by researchers like Mwesigwa (2010) focused on digital banking adoption and its effect on banks financial performance. Other researchers like Dr. Hussein A. Abdou have looked at risk management and electronic banking. Research is still lacking on the effect of digital migration on the financial performance of commercial banks in Uganda. This study therefore sought to fill this knowledge gap by establishing the effect of digital migration on financial performance of Commercial Banks in Uganda.

1.3 General Objectives

The long-term objective of this research is to exhaustively investigate the relevance of digital migration to financial performance of commercial banks in Uganda.

1.4 Specific Objectives

- To evaluate the effect of mobile banking on the financial performance of commercial banks.
- To establish to what extent ATMs, influence the financial performance of commercial banks in Uganda.
- To evaluate the effect of online banking to the financial performance of commercial banks in Uganda.

1.5 Research Questions

The study sought to find answers to the questions below as a basis for achieving the set objectives.

- What is the effect of mobile banking on the financial performance of commercial banks in Uganda?

- To what extent do ATMs influence the financial performance of commercial banks in Uganda?

- Does online banking have a significant effect on the financial performance of commercial banks in Uganda?

1.6 Scope of Study

1.6.1 Content scope

The study trailed to examine the relevance of digital migration to the financial performance of commercial banks in Uganda. The study extensively engrossed on digital migration and its solutions used by commercial banks most especially Stanbic bank which is the area of consideration.

1.6.2 Geographical Scope

The study was conducted on commercial banks in Uganda case study which is Stanbic Bank Uganda Masaka branch. The branch is located in Masaka district, Masaka Municipality, Birch Avenue.

1.6.3 Time Scope

The research took a period of one academic year (2017-2018). This gave the researcher ample time to collect and critically scrutinise the available data relevant for the study.

1.7 Conceptual Framework

According to Miles and Huberman (1994), a conceptual framework lays out the key factors, constructs, or variables, and presumes relationships among them. The conceptual framework was developed after review of related literature on the study variables. The model shown in the figure below examined the relationship between digital migration solutions and the financial performance of commercial banks in Uganda. Nolle D etal (2002) identified a relationship between digital migration and financial performance of banks whereas Mary J Cronin (1998) recognize digital migration solutions as independent contributors to financial performance.

Figure 1; Conceptual framework

INDEPENDENT VARIABLESDEPENDENT VARIABLES
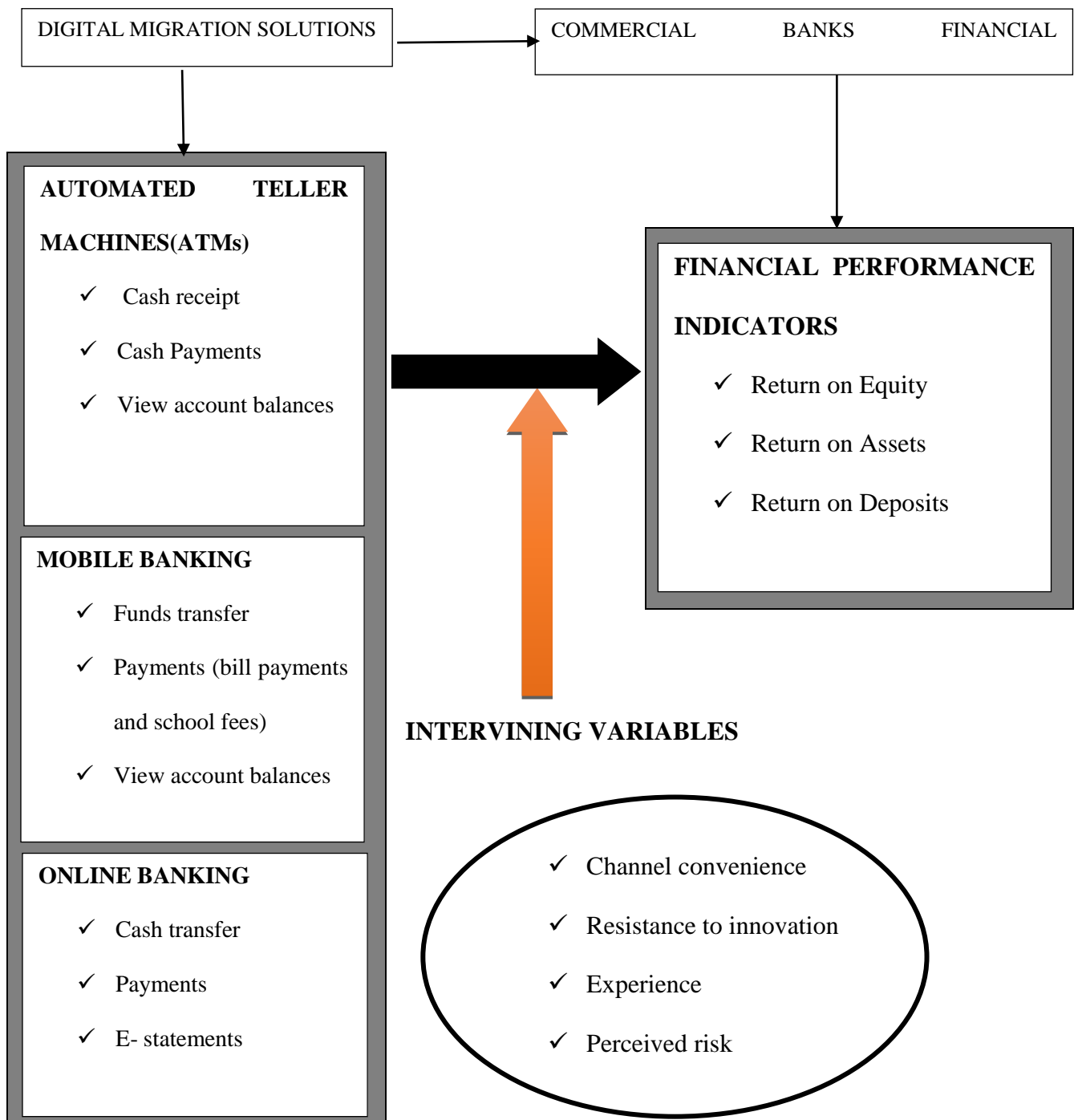
Source: Researcher, and modified from McKnight and Chervany, 2002,

Basing on the above conceptual framework, financial Performance analysis is an important tool used by various agents operating either internally to the bank or who form part of the bank's external operating environment like the regulators. Who is interested in bank's financial performance? The answer is that depositors, shareholders, regulators, managers, direct competitors, credit-rating companies, financial markets, and other market participants (Patrick T Harker etal (2000). Performance measurements play an important role in understanding the determinants of successful performance of firms, such as banks.

There are two broad approaches used to measure bank performance, the accounting approach, which makes use of financial ratios and econometric techniques. Traditionally accounting methods primarily based on the use of financial ratios have been employed for assessing bank performance. However, the limitations of this method coupled with advances in management sciences have led to the development of alternate methods such as non-parametric (DEA) and parametric Stochastic Frontier Approach (SFA) (Berger, A,etal 2003).

It has been asserted that the whole idea of measuring bank performance is to separate banks that are performing well from those which are doing poorly. Further studies indicated that, evaluating the performance of financial institution can inform government policy by assessing the effects of deregulation, mergers and market structure on efficiency (Berger & Humphrey, 1997). Financial ratio analysis investigates different area of bank performance, such as profitability, assets quality and solvency. The key ratios for measuring the performance of the banks according to (Patrick T Harker etal (2000) are discussed as follows; Profitability ratios typically used in banking are ROA, ROE and ROD as discussed below.

Return on assets (ROA); This is often described as the primary ratio, it relates to the income earned by the bank to the assets used in the business operation. Profit before tax is generally ideal because calculations using net income after tax figures may show trends due simply to changes in the rates of taxation(Mary J Cronin 1998)It is appreciated that the return on assets indicator is the most exact measure of banking activity and financial performance due to the fact that it expresses directly the results according to the specific management of banking intermediate of active operations and optimization related to a volume of resources considered. The computation formula of the indicator is:

$$ROA=\frac{\text{Net profit}}{\text{Assets}}*100$$

The limits of ROA variations are generally between0, 5-1, 6%. Specifically, to the big banks is the small value (< 1%), while to the small and medium banks is characteristic an extra unit dimension of indicator.

Return of equity (ROE): This ratio measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. The higher such ratio, the more efficient is the financial performance of profitability of a bank (Rose 1999)

$$ROE=\frac{\text{Net Profit}}{\text{Capital}}*100$$

It is considered the net profit after deduction of all expenses and taxes and the capital is a sum of nominal capital, of unshared profit and the reserve funds. In the banks situation, a normal margin of this indicator is appreciated to be located or situated between the significant thresholds of 10% and respectively 30%.

Return on Deposits (ROD): According to Rose 1999) to most financial analysts, (ROD) is one of the best measures of bank profitability performance. It is calculated through dividing net profits by total deposits. This ratio reflects the bank management ability to utilize the customers' deposits to generate profits.

1.8 Justification of the Study

SBUL is Uganda's leading commercial bank commanding 27% of market share with almost presence in every district in Uganda. SBUL offers a collection of appropriate financial services to both economically vibrant and disadvantaged Ugandans, of whom the latter are the majority states the SBUL Annual Report (2017). These financial services include savings, credit, funds transfers, financial training, time deposits and cheque clearing. However, despite being the market leader in Uganda's financial sector, this has not made the bank immune to performance challenges. Therefore, embracing digital migrations at the bank has recently become a central part of the performance agenda. The link between digital migration and financial performance is increasingly being appreciated. Therefore, digital migration has been identified as a means of causing improved financial performance at the bank.

1.9 Significance of Study

The findings of the study gave a descriptive analysis on the relevance of digital migration on service quality in commercial banks in Uganda. The findings of the study also contributed and added useful information to that which already exists regarding determinants of financial performance of the different commercial banks in Uganda.

The study may also be of value to academia as a basis of future empirical and conceptual research, which is helpful in refining and validating findings especially when a significant number of experiences is collected and studied.

For the policy makers and agencies like the Central bank of Uganda, the findings of this study may be important in informing the policy formulation especially about regulating the digital migration solutions banking in Ugandan banks. The research findings add dimension that may help improve policy direction about regulation of the solutions as well as factors that spur economic growth.

Commercial banks Directors and founders that have not yet adopted or embraced the use of digital solutions may use the knowledge in this research report to find out on how best they can use digital migrations for better financial performance.

The customers who may have an opportunity to read through this research report may acquire awareness about the different digital platforms in Stanbic Bank Uganda and their importance. They may come to appreciate the fact that digital migration is a saviour to long queues in the banking halls and that it is cost friendly.

1.10 Conclusion

In conclusion, the relationship between the variables that is Digital migration and financial performance has been shown in the chapter with different elements that have helped to come out with intended results. The next chapter will further help support the research topic basing on the related literature.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The literature reviewed in the study focused on the theories that guided the study. The section also attempts to present a critical review of the available literature about the research. It looked at different digital migration solutions used and their effects towards financial performance of commercial banks and finally, a summary of the literature review

2.1 The theoretical review

Mugenda and Mugenda (2003) define a theory as a system of explaining phenomena by stating constructs and the laws that interrelate these constructs to each other. The study was based on several theories that link digital migration to commercial bank financial performance but a few strong theories were selected as discussed below.

2.1.1 Diffusion of innovation theory

Everett Rogers (2003), a professor of communication studies, popularized the theory in his book Diffusion of Innovations; the book was first published in 1962, and is now in its fifth edition (2003). He asserts that the theory is about the adoption rate of innovation in social systems. He further explains individuals' intention to adopt a technology as a modality to perform a traditional activity. The theory describes the mechanisms of how new inventions of digital migration are adopted and become successful. Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system and an innovation as an idea, practice, or object is perceived as new by an individual or other unit for adoption (Rogers, E.M. 2003),

Although most of the studies from the practitioners are not peer reviewed, they provide valuable information on actual usage and contextual information on the development and use of the phenomenal. If the user accepts the innovation then the new idea will work out for better results to the inventers (Bradley and Stewart 2003) In this case, the innovation is digital migration and it should be diffused to the customers. The theory helped also to understand customers' behaviour in the adoption or non-adoption of an innovation and to decide on whether to invest in the project or not (Lee and others, 2003).

The theory was coordinated with the transaction cost innovation theory by Hicks and Niehans to bring out a better relationship between the two variables as discussed below.

2.1.2 The Transaction Cost Innovation Theory

Hicks and Niehans (1983), the pioneers of the transaction cost innovation theory, thought that the dominant factor of technological innovation is the reduction of transaction cost, and in fact, digital migration is the response of the advance in technology which cause the transaction costs to reduce in commercial banks. The reduction of transaction cost can stimulate financial performance and improvement in financial service. This theory studied innovation from the perspective of tiny economic structure change (BeinHocker E.2006). It assumed that the motive of innovation is to reduce the transaction cost. And the theory explained from another perspective that the radical motive of technology innovation is the commercial banks' purpose of better financial performance.

To bring out its relevance, "Transaction cost" was coined by Ronald Coase in his paper titled "The Nature of the Firm" in 1937 and referred it to "the cost of using the price mechanism" or "the cost of carrying out a transaction by means of an exchange on the open market". Sincethen there have been vast literature not only on the definition of transaction cost but also

on measurement with the most common being advanced by Collins and Fabozzi (Wang, 2003).

Who propose the following schemes:

- Transaction costs = fixed costs + variable costs;

- Fixed costs = commissions + transfer fees + taxes;

- Variable costs = execution costs + opportunity costs:

- Execution costs = price impact + market timing costs;

- Opportunity costs = desired results - actual returns execution costs fixed costs.

The research was instituted majorly on the above two theories to clearly evaluate the effect of acceptance of innovation in banks financial services through digital migration to the financial performance of commercial banks in Uganda.

2.2 Conceptual review

2.2.1 Digital migration

Digital migration is the application of digital technologies that fundamentally impact on all aspects of business and society. Digital migration is the profound transformation of business and organizational activities, processes, competencies and models to fully leverage the changes and opportunities of a mix of digital technologies and their accelerating impact across society in a strategic and prioritized way, with present and future shifts in mind (Bauer, K., Hein S. 2006).Digital migration is a journey with multiple connected intermediary goals, in the end striving towards continuous optimization across processes, divisions and the business ecosystem of a hyper-connected age where building the right bridges in function of that journey is the key to succeed.

A digital migration strategy aims to create the capabilities of fully leveraging the possibilities and opportunities of new technologies and their impact faster, better and in a more innovative way in the future. A digital migration journey needs a staged approach with a clear roadmap, involving a variety of stakeholders, beyond the silos and internal and external limitations. David L. Rogers (2016) further asserts that this roadmap considers that end goals will continue to move as digital migration is an ongoing journey, as is change and digital innovation.

2.2.1.1 Digital migration and business value

Gardner, J. (2009) elaborates that technology drives value in businesses in four ways: enhanced connectivity, automation of manual tasks, improved decision making, and product or service innovation and further split into different aspects for easy evaluation and the researcher agrees with the scholar as discussed below;

Customer experience-Seamless multi-channel experience whenever, wherever propositions.

Product and service innovation-New digital products and service, co creation of new products.

Distribution, marketing and sales-Digital marketing with higher return on investment and digital argumentation of traditional channels.

Digital fulfillment-Full straight through processing and automatic provisioning.

Risk optimization-Embedded or automated controls and risk profiling.

Enhanced corporate control-Improved real time management of information and decision making.This is further elaborated in the Mckinsey tool below.

Figure 2: Digital migration and business value
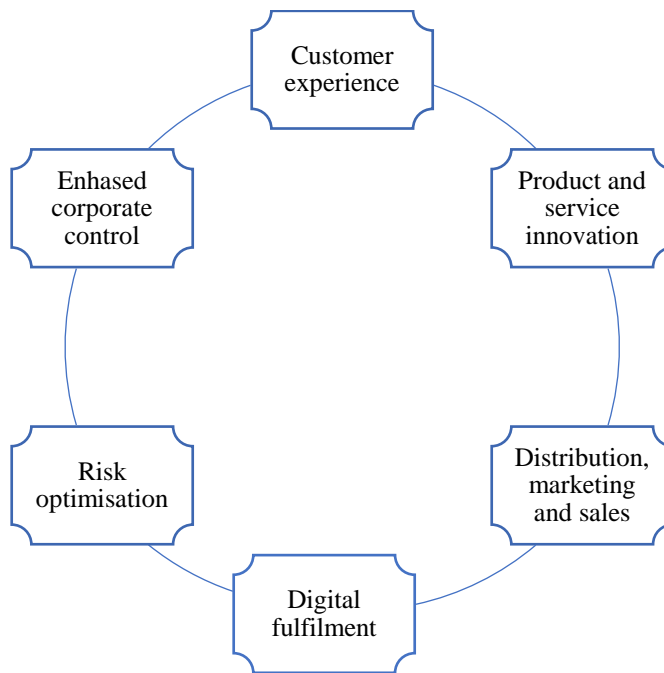
Source; Mckinsey Analysis (Gardner, J. 2009)

This creates mixed opportunities to gain maximum advantage from digital investments. Big-data insights, for example, can be used to enhance customer targeting and adjust pricing in real time, but they can also be used for better forecasting of operational-capacity needs to boost asset and resource utilization (Gardner, J. 2009). Likewise, app technology that is typically focused on improving customer interactions can also be applied to a broad range of internal interactions, such as Human resource and procurement requests as explained by Karl Mehta &Carol Realini (2015). Smarter and more complete application of digital investments not only deliver concrete improvements within a given function but can also unlock "trapped" value by improving information flows and reducing waste across the organization.

2.2.2 Financial performance

Financial performance is a subjective measure of how well a firm can use its assets from its primary mode of business and generate revenues. The ultimate goal of a business organization is the higher financial performance or maximization of wealth for stakeholders (Joseph etal2015). Nonetheless, attaining the organization's goals depends upon the extent to which its financial performance is reached.

Gilbert, Meyer and Vaughan (2000) assert that some useful measures of financial performance are coined into what is referred to as CAMEL. The acronym "CAMEL" refers to the five components of a bank's condition that are assessed: Capital adequacy, Asset quality, Management, Earnings, and Liquidity. One of the benefits banks derive from digital migration products and services delivery is improved efficiency and effectiveness of their operations so that more transactions can be processed faster and most conveniently, which will undoubtedly affect significantly on the overall performance of the banks (Kumar 2012).

In most scenarios, the financial performance of commercial banks is measured in ratios. According to George Westerman etal (2014)) for one to realise how well a bank is performing it is much more useful to consider return on assets (ROA) and return on equity (ROE). The ROA signifies managerial efficiency in other words it depicts how effective and efficient the management of banks has been as they seek to transform assets into earnings. The higher ratio is an indication of higher performance of the banks. It is a useful tool for comparing profitability of one bank with other or even the whole commercial banking system. Moreover, the ROE is said to measure the rate of return on the bank's shareholders.

2.2.3 Mobile banking

The broader vision of financial inclusion policy of Bank of Uganda is to bring all people under the umbrella of formal financial system(Bank of Uganda Annual Report 2016-2017). Mobile banking extends the opportunity to create another alternative method of banking beyond the bank branch and ATM network through which vast section of the population, including people who live in remote areas, will have easier and faster access to formal financial services.

According to DeYoung, R. (2005), Mobile Banking is simply defined as carrying out banking transactions via mobile devices such as cell phones or personal digital assistants. According to Rose (1999), Mobile banking refers to provision of bank-related financial services with the help of mobile telecommunication devices and is a service provided by financial institutions in cooperation with mobile phone operators.

According to the The Uganda Communication Commission (UCC) report 2015/2016, the mobile telephony industry in Uganda grew by 3.4% from the previous 2.2%. This saw an increase in the number of mobile subscribers to 22,646,850 from 21,910,000 subscribers in the period of three months. This is greatly pushing commercial banks to sell their products and carry out customer service using the digital banking platform to ease banking for the customers (Digital Banking Report issue 248/April/ 2017).

2.2.4 ATMs

ATM is typically made up of the CPU for controlling the user interface and transaction devices, magnetic or Chip card reader for identifying the customer, display which is used by the customer for performing the transaction, function buttons usually close to the display or a

Touch screen used to select the various aspects of the transaction and a record printer which provides the customer with a record of a transaction (Cronin and Mary, 1997).

Most ATMs are connected to interbank networks, enabling people to withdraw and deposit money from machines not belonging to the bank where they have their account or in the country where their accounts are held thus enabling cash withdrawals in local currency eyed A. M., Saeed N. & Mahmoud R. S. (2015). They are often identified by signs above them indicating the name of the bank owning them.

ATM is said to have evolved from early cash dispenser and is said to have first been introduced in the early 1970's. The dispensers were operated by a token inform of a punch card. This enables a customer to withdraw as sachets of suitable values of bank notes. These sachets processes and then return the card to the customers. Another source has it that ATM concept was started around 1967, and that it was first installed in End field town, on the London Borough of End field by Barclays Bank. (Helen M. Burns 1935)

2.2.5 Online banking

Online banking acceptance has gained special attention in academic studies in the past years (John H Wood 2005). Research spots two fundamental reasons underlying online banking development and diffusion. First, banks get notable cost savings by offering online banking services. It has been proved that online banking channel is the cheapest delivery channel for banking products once established (Furst etal 2002) Second, banks have reduced their branch networks and downsized the number of service staff, which have paved the way to self-service channels as quite many customers felt that branch banking took too much time and effort (John H Wood 2005) Therefore, time and cost savings have been found the main reasons underlying online banking acceptance.

As estimated, the number of internet subscribers and internet users continued to grow respectively by 68.4% and 10.1% resulting in a 45.4% internet penetration. online banking, is an outgrowth of PC banking (Skinner 2014) Online banking uses the Internet as the delivery channel to conduct banking activity, for example, transferring funds, paying bills, viewing checking and savings account balances, paying mortgages, and purchasing financial instruments and certificates of deposit. An online banking customer accesses his or her accounts from browser software that runs online banking programs resident on the bank's World Wide Web server, not on the user's PC.

2.3 Mobile banking and financial performance

Mobile banking offers millions of people a potential solution in emerging markets that have access to a cell phone, yet remain excluded from the financial mainstream. It can make basic financial services more accessible by minimizing time and distance to the nearest retail bank branches Pavlou P (2001) as well as reducing the bank 's own overheads and transaction-related costs. Mobile banking presents an opportunity for financial institutions to extend banking services to new customers thereby increasing their market (Lee, Lee and Kim, 2007).

Encouraging customers to use innovation such as the mobile telephones for banking transactions can result into considerable operating costs savings (David L Rogers 2016) Suggests that m-banking is driven largely by the prospects of operating under minimum costs and operating increasing revenues maximization. M-banking is cost effective way to provide banking services to the unbanked because there is no need to set up physical branches to facilitate customers it is "branchless banking". Its branchless bank model includes enhanced ability to carry out limited banking transactions via mobile phone.

Connectivity for mobile device is not the part of banking service it is duly and part of business of telecommunication department and cellular service providers. Hence, banks should only lease the telecommunication lines provided by telecommunication department to provide access to the financial services. Though the M- banking idea was initially born out of the intention to reach the unbanked poor, (Porteous, 2006). It has stretched its tentacles far and wide to captivate the interest of unimagined client segments. Even the prudential banks have joined the fray and are now acting as agents and outlets of Mobile service provider banking services. This could have come as a realization on the part of the traditional banks of the maxim that "if you cannot beat them; join them." Cash transactions, account opening and other transactions can be conducted online.

Mobile phone operators have identified m-banking payments systems as a potential service to offer customers, increasing loyalty while generating fees and messaging charges. There is no universal form of m-banking, rather, purpose and structures vary from country to country. The systems offer a variety of financial functions, including bill payments to utilities, transfers between individuals and long distance remittances. Currently, different institutional and business models deliver these systems. Some are offered entirely by banks, others entirely by telecommunications providers and still others involve a partnership between a bank and telecommunications provider (Porteuos, 2006).

2.3.1 Mobile banking services offered

Skinner, C. (2014) states that one way to classify these services depending on the originator of a service session which is the Push and Pull nature. Push is when the bank sends out information based upon an agreed set of rules, for example your banks sends out an alert when your account balance goes below a threshold level or when it is changing status for example from being active to dormancy. Pull is when the customer explicitly

requests a service or information from the bank, so a request for your last five transactions statement is a Pull based offering or balance inquiry. The other way to categorize the mobile banking services, by the nature of the service, gives us two kind of services. Transaction based and Enquiry Based. So, a request for your bank statement is an enquiry based service and a request for your funds transfer to some other account is a transaction based service.

Transaction based services are also differentiated from enquiry based services in the sense that they require additional security across the channel from the mobile phone to the banks data servers. Below are some of the mobile banking transactions offered by commercial banks.

- **Funds transfer**

Funds can be transferred using mobile banking from one account to the other within the same bank. Transfer of funds can also be from account to mobile money account of from account to wallet depending on the customer request.

- **Payments**

The payments done through mobile banking include bill payments and also school fees or tuition payments. Bill payments done through mobile banking include payments for UMEME, NWSC, Pay TVs, and URA among others. School fees or tuition payments is paid through mobile banking to respective beneficiaries.

- **View of account balances**

Mobile banking can be used to view balances on the account. The customer sends a request for account balance to the bank server using the phone through the steps set out by the

vendor. The server sends the text to the bank giving instructions and there after it responds with the required information.

2.4 ATMs and financial performance

Literature shows that ATM banking has received customer preference to become the second most popular channel for accessing banking products and services behind branch banking (Nathan L 2013). The first ATM machine in Uganda was introduced by NCR for Standard Chartered Bank in September 1997.Currently Uganda is housing over 250 ATMs from one in 1997 with the number projected to grow to 500 by 2020(Lawrence Bategeka 2010)

Automated Teller Machine have become a major indicator of digital migration investment by banks. Globally ATMs have been adopted and are still being adopted by banks. They offer considerable benefits to both banks and depositors (George Westerman etal 2014).

Caprio etal (2005) argue that although ATM systems have high fixed costs, they have lower variable transaction processing costs hence favouring financial performance of commercial banks. It is the goal of banks to offer competitive services and keep an expanding base of satisfied customers to remain competitive and profitable.

Rose, (1999) ATMs are a cost-efficient way of yielding higher productivity as they achieve higher productivity per period of time than human tellers (an average of about 6,400 transactions per month for ATMs compared to 4,300 for human tellers. She further asserts that ATMs will continue working even when human tellers stop. There is continual productivity for the banks even after banking hours hence continuity in yielding revenue to the bank 24/7.

Automated teller machine (ATM) banking has become a significant channel for banking products and services behind branch banking in Uganda and banks continue to invest in new and efficient technologies that can handle more functions that include cash depositing to attract more customers and achieve customer satisfaction with the banks and focus on reducing the costs to transact on both the bank side and the customer side.

This concludes that there is a positive relationship between ATMs and financial performance of commercial banks. As for sustainability of income gained, earlier adopters have cost improvements by replacing tellers with ATM. The conclusion was with Olivia (2011) that ATMs could reduce human resource costs of tellers and branch establishment costs hence high financial performance of commercial banks.

- **Cash receipts and Cash payments**

Deposits are made at the ATMs customers do not need to go to the tellers and the accounts are later credited. This reduces on the time spent in the queue waiting to deposit cash. Recently trough research it came to my notice that Stanbic bank Masaka branch introduced an ''Intelligent ATM '' that credits the customer's account with the cash deposited immediately making it more efficient and fast to deposit cash as compared to tellers.

2.5 Online banking and financial performance

Banks switching to online banking have experienced reduction in operational costs. Even when customers had to make payments to other accounts from their saving or current account, they had to come to the bank to deposit cheques. All this was done by staff at the bank which unnecessarily resulted in wastage of time and manpower (Olivia (2011). The use of online banking has obliterated the need of customers personally visiting the bank for such purposes.

On this basis, no bank today can underestimate the power of the online channel. Abbas F (2007) for instance estimates that in the near future the online channel reinforces its importance in far to reach areas where banks have closed many branches. However, there is no supporting evidence on this regional issue. Without the possibility of managing banking affairs directly from home or office, customers easily perceive troubles in managing their financial affairs such as paying bills. As noted, online banking offers many benefits to banks as well as to customers.

2.5.1 Digital migration in Stanbic bank

Currently in Uganda digital migration solutions are used by banks and for the case of Stanbic bank, it is being used to offer clients the ability to access inquiry services like bank balance and mini statements using their mobile phones, ATMs and using the internet through online banking. With the use of the digital solutions, in Stanbic bank (Uganda) you can do all this if at all you can access the solutions: Make a balance enquiry, request a mini statement of last ten transactions, Transfer funds across your accounts and other pre-nominated accounts in Stanbic bank, pay utility bills for Umeme and National Water and Sewerage Corporation, request a cheque book and get alerts for withdrawals on your account (SBU ANNUAL REPORT 2016-2017)

2.5.2 How to access digital services at Stanbic Uganda

Indicate the operating account number which should be either current or savings account and not Provide your Umeme, National Water & Sewerage Corporation account numbers, provide your mobile number, all other facilities will be enabled automatically balance enquiry, transaction details, New cheque book and bank statement request and finally your m-banking PIN will be mailed to the account holders preferred branch. This link can be used

for Online banking**, https://ibanking.stanbicbank.co.ug/#/Login** and ***290#** is used for mobile banking services.(SBU ANNUAL REPORT 2016-2017)

2.5.3 Levels of digital Transformation maturity

According toGardner (2009) in his Custom research by Altimeter Group on behalf of Cognizant every business faces digital Darwinism. Some companies are far as along as digital migration process while others have yet to begin a formal transformation strategy. The six (6) levels of Digital migration maturity, organise the key moments and milestones along the path of innovation to offer visibility and guidance to those change agents leading the way. Through the research, I identified these stages that commercial banks go through in their digital migration journey.

Figure 3: The six levels of Digital Transformation maturity
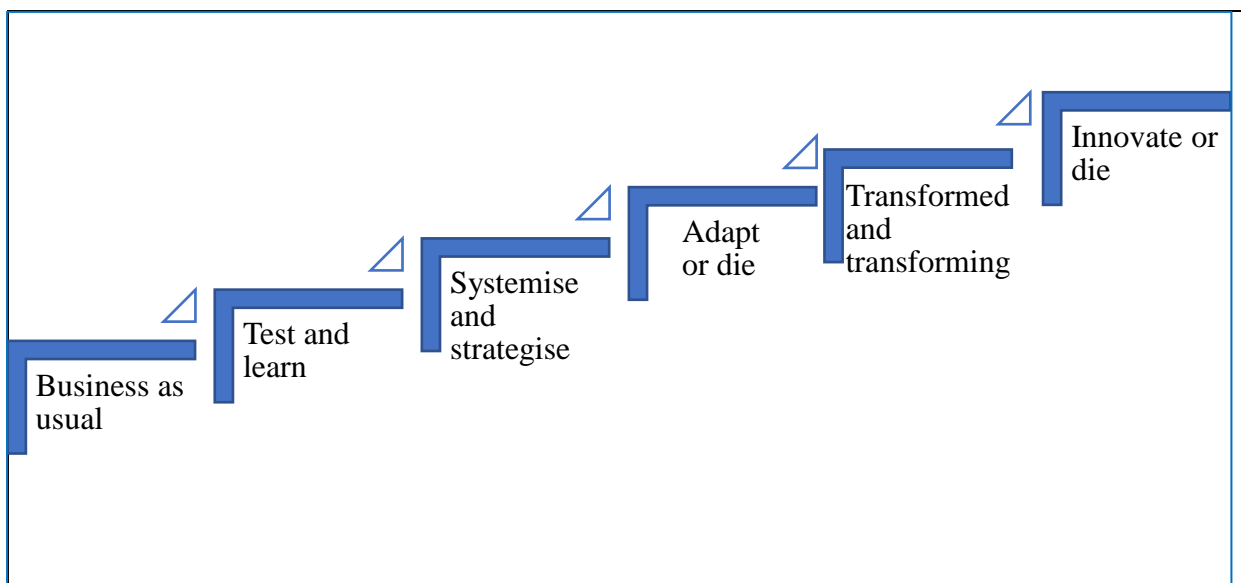
Source; Gardner (2009) modified in Cognizant.

Business as usual; as the category states, banks operate as normal. They ignore digital migrations and continue their course as planned giving reasons like ''we are profitable today why should we change''

Test and learn; Banks are starting to get it in this phase, usually because someone in some department recognises that things are not working as is or they see other businesses doing it differently. Change agents take action.

Systemise and strategize; Digital transformation starts to trigger strategic investments in people, processes, and technology. The bank is getting smarter, with its change agents seeing the bigger picture and starting to work formally toward it. IT and marketing form a working or formal alliance to expedite investments and a supporting infrastructure for transformation.

Adapt or die; there is notable momentum at this point, and change is something that the entire organization is starting to recognize and appreciate. Businesses in this stage are becoming resilient. Efforts in digital transformation become intentional with short- and long-term goals or outcomes supported by investments in infrastructure. In fact, efforts are now more ambitious and organized formally.

Transformed and transforming; Digital transformation is now in the company's DNA, and it becomes constant. Along the way, these efforts have reshaped the enterprise, creating new models and operating standards affecting people, process, and technology by function and line of business at both the local and enterprise-wide level. The organization is operating in a more unified manner with digital transformation efforts led or managed by a governing body.

Innovate or die; the culture of innovation becomes prevalent. Now, new models, roles, and investments shift toward innovation to accelerate transformation and identify new, unconventional opportunities for growth. The workgroup(s) once dedicated to transformation and technology shift focus toward innovation and disruption. Innovation centres or teams are officially formed to recruit new talent, identify new technology and investment or acquisition opportunities, and learn where to focus transformation efforts over the short or long term.

The above structure has turned out to be beneficial to commercial banks when making a choice of whether to go digital or maintain the brick and mortar services.

2.6 Intervening variables

2.6.1 Channel convenience

Network interruptions pose a serious challenge to digital migration success. David F. (1989)asserts that digital Web connections are generally slower than broadband connections; however, he observes that customers can be good about accepting a say, 10-second refresh interval. The threat of losing connectivity in the middle of a transaction makes the use of digital solutions inconvenient for bank customers. For example, customers worry is if the information is simply lost or is it cached locally and then uploaded when the network becomes available DeYoung (2005) and George (2014).

2.6.2 Attitude towards innovation

Attitude is one of the fundamental factors influencing consumers 'use of digital solutions, therefore, attracted considerable attention from researchers probing the behaviour of bank customers and their relationship with these institutions. According to (Gardner 2009) attitude toward digital migration solutions is defined as an individual's overall affective reaction to using the internet for his or her banking activities. The scholars ,Jonathan (2014)and Karl Mehta (2015)warn that a lack of trust may be the most significant long-term barrier for realizing the full potential and attitude towards digital migration adoption .With regard to new technology acceptance, the literature points out that unless, the specific need of a consumer is fulfilled, consumers may not be prepared to change from present familiar ways of operating Bauer (2006) An alarming question on the minds of many banks is whether or not people would use digital migration services.

2.6.3 Experience

While digital migration solutions generally influence a customer's usage, the degree to which a digital payment experience affects a consumer's usage varies and is subject to the technical

support being examined. Wang Y, Lin H, Tang T (2003) contended that prior computer experience, prior technology experience, and prior personal banking experience positively affect consumers' attitude and behaviours towards online banking. However, the limited prior experience of using digital migration platforms will contribute negatively to the perceived usefulness of the solutions. Digital banking platforms experience has been found to be associated with perceived usefulness (Helen 1935) .Given the lack of prior experience of digital usage of Ugandan banking customers, I propose that experience has a negative impact on perceived usefulness of digital solutions. Without the required skill sets, financial services organizations will have a difficult time breaking down silos.

2.6.4 Perceived risk

Progressing monetary dealings on the internet present countless risks for consumers, above and over the deal procedure itself being perceived as risk. Bauer RA (1960) initially presented the idea of perceived risk, he characterized risk as far as the instability and outcomes connected with a consumer 'activities. Pavlou P (2001) states that perceived risk is suggested as a projecting obstacle to customer acceptance of digital migration. He further states that in the setting of digital migration solutions, risk can be seen either via system and information exchange attacks or it can also be seen via illegal access to the account by untruthful or imperfect verification. Increased levels of cyber threats have the potential for causing significant disruptions in their services apart from risks related to sensitive customer information and internet frauds. It is therefore important to see how information technology systems and data security risks are monitored and managed such that banks can reap from digital migration.

2.7 Conclusion

From empirical review of past studies done locally or outside the borders, mixed evidence is clearly witnessed on digital migration and its effect on banks' financial performance. There is therefore a gap left in understanding digital migration residual effect on financial performance of commercial banks in Uganda. This research strived to evidently depict digital migration effect, whether positive or negative, on the financial performance of commercial banks in Uganda. Therefore, the next chapter will endeavour to establish how the gaps identified will be filled regarding the actual implementation of the research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology. First, a presentation of the research design is provided, the target population, sampling design, description of research instruments, description of data collection procedures and a description of data analysis procedures. The measurement of variables, validity and reliability of data and the final data analysis techniques that will be applied.

3.2 Research design

A research design can be defined as a plan used for data collection and utilization to obtain desired information with accuracy or for a researcher to test their hypothesis sufficiently(Dawson 2002).This study used a descriptive research design. Creswell (2009))describes descriptive research design as a systematic, empirical inquiring into which the researcher does not have a direct control of independent variable as their manifestation has already occurred or because the inherently cannot be manipulated.

Descriptive research design is more appropriate because the study sought to build a profile about the effect of Digital migrations on the financial performance of commercial banks in Uganda. The design was based on one entity which is Stanbic bank Masaka branch to help the researcher get an in-depth relationship between the variables which are digital migration (independent) and financial performance of commercial banks (dependent).

3.3 Area of Study

The study was carried out in Stanbic Bank, Masaka branch. The branch is in Masaka District, Masaka Municipality Birch Avenue Plot 4in Central Uganda.

3.4 Study population

All the items under consideration in any field of inquiry constitute a 'universe' or 'population'. It can be presumed that in such an inquiry when all the items are covered no element of chance is left and highest accuracy is obtained (Dawson, C. 2002). Stanbic bank Masaka branch has an estimated population of forty (40) employees that were interviewed.

3.5 Sampling design

Sampling refers to a selection of number of study units from a defined study population. The simple random sampling strategy was used to guide the researcher and this involved tip like from whom was the data to be collected and where, when and how big the sample would be. Simple random sampling minimizes bias and simplifies analysis of results, (Hair J 1998). The researcher distributed the questionnaires to the employees of Stanbic bank Masaka branch. The researcher ensured that every employee has an equal chance. Judgment was based on the consensus among employees in the bank.

3.6 Sample size

A sample is the part of the target population that has been procedurally selected to represent the other individuals of the population. (Oso and Onen, 2009). The sample size of employees included an estimate of 35 employees from different departments basing on the table for determining sample size by Krejcie and Morgan, (1970) supports this by stating that a researcher needs to get the appropriate sample size in terms of accuracy and cost putting into consideration the subject matter of investigation.

3.7Sampling techniques

A sample will be taken through stratified and simple random sampling procedures. Application of the two techniques is based on the assumption that while simple random ensured equal chance of being included in the sample, the stratified method was viable for sampling employees who are heterogeneous (Creswell 2009) in terms of levels of management they are working and knowledge of work. In this regard, the organisation (Stanbic Bank Masaka Branch) was stratified into two levels before using simple random sampling to select the desired 35 participants. The sample size is as laid on the sample matrix below.

Table 1:Sample matrix

Level	Population	Sample	Sampling Methods
Supervisory	07	06	Simple random
Operational	33	29	Simple random
Total	**40**	**35**	

A stratified sample is defined as one resulting from classification of population into mutually exclusive groups, called strata, and choosing a simple random sample from each stratum. The strata for study were Supervisory and Operational.

3.8Data sources

Primary information was gathered by use of questionnaires coupled with informal interviews that were guided by the questionnaires. Secondary data was gathered from annual reports of SBUL.

3.8.1 Primary data

Primary data was the main source. Data from the field was obtained using self-administered questionnaires to the respondents following systematic and established academic procedures as suggested by Donald Cooper&Pamela Schindler (2016) Scale questions were used; ranging from 1= Strongly Disagree to 5= Strongly Agree. Also, some employees were interviewed using the interview guide to mainly discuss in depth the open-ended questions in the questionnaire.

3.8.2 Secondary data:

To strengthen the primary data, secondary data was gathered from existing documents such as, bank records, journals and financial reports. This method was chosen because; it is vital in providing background information and facts about digital migration on performance of the bank and the case study organisation before primary data can be collected. Indeed, before field data was collected, a wide collection of data was collected and was used to cross check with the primary data that was obtained from the field.

3.9Data collection instruments

Questionnaires

Data was collected using well formulated questionnaires. The questionnaires were self-adjusted, validated and pre-tested. The self-administered questionnaire was used as a tool for data collection because it is quicker in getting data from the respondents.

Interviews

The researcher held interviews with the respondents and information obtained through discussions was compared with the data from instruments to ascertain correctness and to get more explanations about the data got using questionnaires.

3.10 Data management and analysis

Miles etal (1984) describe data analysis as the process of bringing order, structure and meaning to the mass of collected data. Research data management concerns the organisation of data, from its entry to the research cycle through to the dissemination and archiving of valuable results. It aims to ensure reliable verification of results, and permits new and innovative research built on existing information.

Data from the field was compiled, sorted, edited and coded to have the required quality, accuracy and completeness. Then entered in the computer using the Statistical Package for Social Sciences (SPSS) for analysis of descriptive statistics such as mean, and standard deviation. To measure the strength of the association between the variables, the researcher made use of the Pearson's coefficient of correlation. A multiple linear regression model was then employed to estimate the relationships between the variables.

3.10.1 Analytical model

The regression model was as follows;

$$Y_{bt} = a + \beta_1 (A) + \beta_2 (M) + \beta_3 (O)$$

Y_{bt} was financial performance represented by financial indicators likeROA, ROE and ROD of bank b in year t. This was obtained from the financial statements.

a-is the intercept of the regression line**,**

A-ATMs, **M**-mobile banking and **O**-online banking.

β_1, β_2, **and** β_3 are the gradients or literally the individual contribution to the dependent variable of the three independent variables.ie ATMs, Mobile banking, Online banking respectively Porteous (2006), Seyed (2015).

3.11 Validity

Validity is the extent to which any measuring instrument measures what it is intended to measure (Miles 1984). Validity of the instrument was obtained through the development of the scales with the help of the experts in the field using the Content Validity Index (CVI). This confirmed the dimensions of the concept that are operationally defined, to ensure appropriateness of results.

3.12 Reliability

Reliability refers to the consistency, stability and repeatability of results meaning that the result of a researcher is considered reliable if consistent results have been obtained in identical situations but different circumstances Twycross and Shields, (2004). The internal consistency of the instruments was determined by applying the Cronbach's alpha technique on Likert rating items. The scaling ranged from agree to strongly disagree that is 1-5 scale rating.

3.13 Findings and Presentation

Analysed data was presented in form of pictorial illustrations that included tables for data and graphs or charts for data representations because they helped summarize the findings and conclusion in a more understandable language.

3.14 Ethical consideration

Since research often involves a great deal of cooperation and coordination among different people in different disciplines and institutions, ethical standards promote the values that are essential to collaborative work, such as trust, accountability, mutual respect, and fairness. For

example, many ethical norms in research, such as guidelines for authorship, copyright and patenting policies, data sharing policies, and confidentiality rules in peer review, are designed to protect intellectual property interests while encouraging collaboration. Therefore, works for different scholars and researchers was fully acknowledged and appreciated.

The researcher did not force the respondents but they freely gave information at their free will.

The administration provided a letter of consent to the researcher to introduce her to Stanbic bank as a student carrying out research and this means that the research was authorised by the university and not for personal gain.

Due to sensitivity of some information collected, the researcher held a moral obligation to treat the information with utmost propriety. Since the respondents were reluctant to disclose some information, the researcher needed to reassure the respondents of confidentiality of the information given. Some respondents wanted to remain anonymous during the interviews and were given a waiver regarding the confidentiality of their identity.

3.15Limitations and delimitations of the study

i) Respondents were withholding information due to fear of being victimized however, the researcher convinced the respondents that the information was to be kept confidential and this was clearly indicated on the questionnaire.

ii) Unwillingness of respondents to fill questionnaires. The researcher was in constant touch with the respondents and made sure reminders were sent to them to fill the questionnaires.

iii) Measurements to be used were adopted from previous studies and therefore any limitations that were embedded in them were anticipated to equally affect this study. To overcome this, the researcher based the conclusions from many literature sources for authenticity.

iv) Due to the time constriction, the research was conducted on a small population not the entire banking sector this might have affected the results and the conclusion of the study.

3.16Conclusion

The research methodology employed in the study was established to ensure that the study objectives are fulfilled and research questions answered. The researcher clearly showed the methodology to be used to gather the necessary information and the findings are presented and discussed in Chapter four.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter details a presentation, an analysis and a discussion of findings from data that was collected from the field. It contains bio data of the sampled respondents presented with frequency tables, descriptive statistics, correlation and regression analysis. These help in achieving the research general objective and the three specific research objectives. The chapter also presents a discussion of results which is done in comparison with related literature to show areas of agreement or contention with research findings.

4.1 Response rate

Out of the thirty-five (35) questionnaires distributed to employees, 33 questionnaires were returned for employees giving 94.3%. The response was excellent to provide the necessary information for the research objectives. The table below shows the response rate.

Table 2: Response rate for respondents

Questionnaires issued	Questionnaires returned	Questionnaires retained by respondent
35	33	02
Percentage	**94.3%**	**5.7%**

Source: Primary Data

Figure 4: Shows the response rate of the respondents
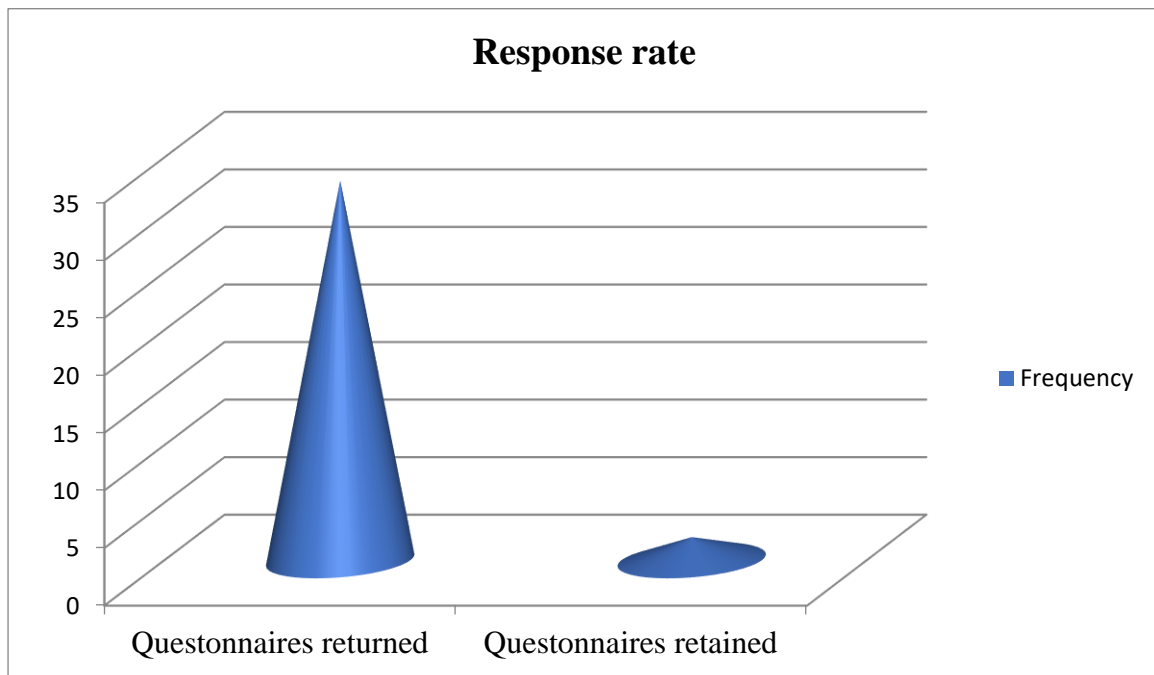
4.1.1 Demographic and sample characteristics

To present sample characteristics, frequency tabulations were used to indicate variations of respondents based on gender, level of education, occupation age group, and role held in the bank by the customer and duration in the current job for employees and the category of position held by the employees in the bank. The sample characteristics were presented basing on the responses from the respondents.

4.1.2 Age of the Respondents

Frequency tabulation was used by the researcher to present the age group distribution of the Respondents.

Table 3: Age of respondents

	Employees age	Frequency	Percent	Cumulative percent
Valid	18-30	21	63.6	63.6
	31-42	10	30.3	93.9
	43-54	02	6.1	100
	55 +	0	0	100
Total		**33**	**100**	

Source: Primary data

Figure 5: The age of the respondents
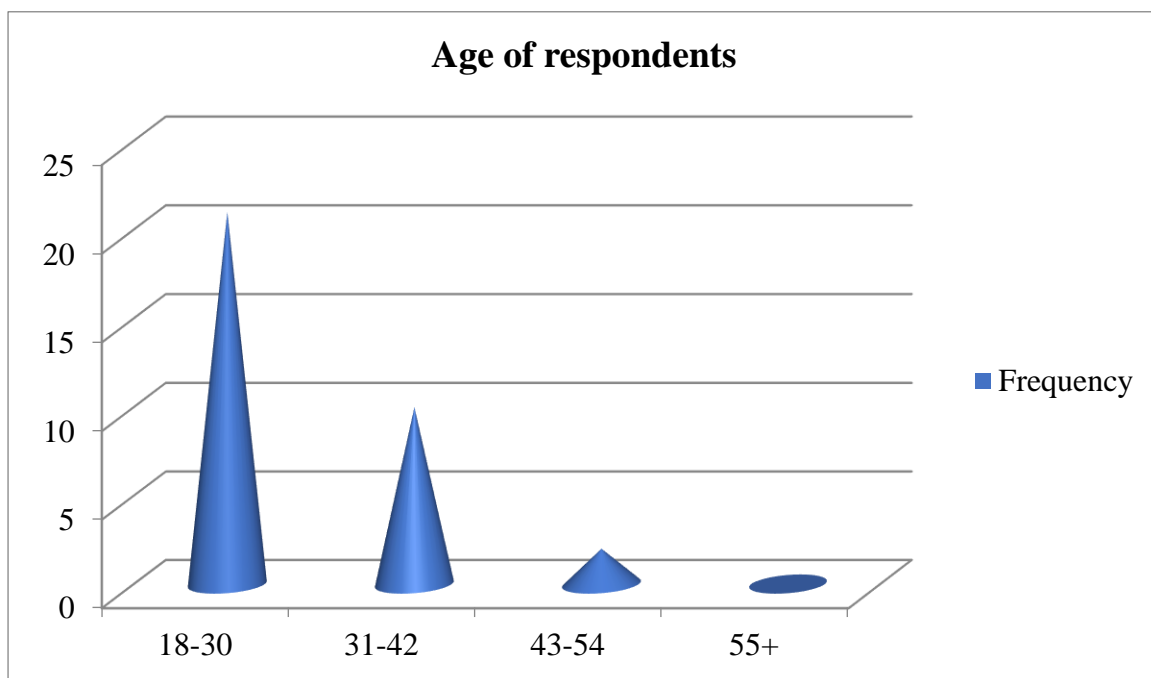
Most the respondents were in the 18-30-year age bracket (63.6%) while on the other hand, those in the 31-42-year age group comprised 30.3% of the sample. In addition, those in the 43-54 comprised of 6.1%. None in the age bracket of 55+. This implies majority of the commercial banks employees are in a dynamic age that can easily learn and understand the digital migration infrastructures put in place by commercial bank. They also had the ability to respond to the questionnaire.

Age also explains some but not all attributes about digital payments. This distribution of respondents by age is an indication that most of the respondents are mostly of young adult age. This age bracket is compelled by the option to receive rewards, discounts, alerts, electronic receipts, and are the most likely age groups to say digital payments are faster and easier than other payment methods (Seyed et al. 2015).

4.1.3 Gender Distribution of the Respondents

Frequency tabulation was used by the researcher to present the gender distribution of the respondents.

Table 4: Gender distribution of respondents

Gender respondent distribution				
		Frequency	**Percent**	**Cumulative percent**
Valid	Male	18	54.5	54.5
	Female	15	45.5	100
Total		**33**	**100**	

Source: Primary data

Figure 6: Gender for the respondents

46
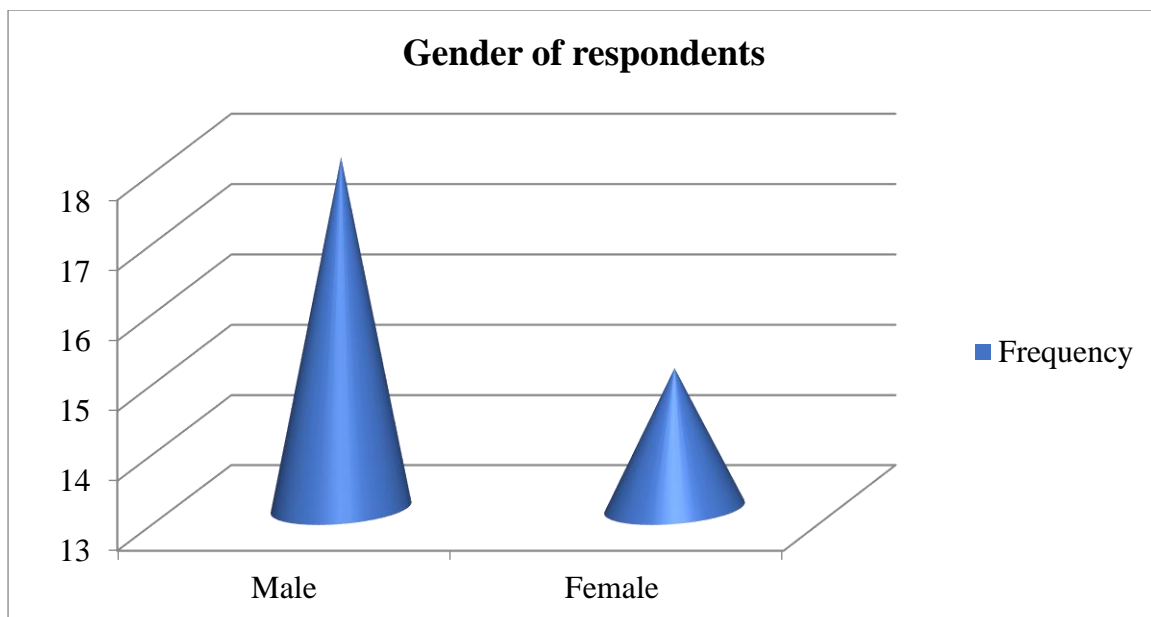
The gender of the respondents revealed that 54.5% were male whereas 45.5% were female.

The research was not gender biased.

4.1.4 Level of Education Distribution of the Respondents

The results in the table below show the level of education of the persons who participated in

the study.

Table 5: Level of education of respondents

Level of Education		Frequency	Percent	Cumulative percent
Valid	PHD	0	0	0
	Masters	7	21.2	21.2
	Degree	25	75.8	97
	Diploma	01	3.0	100
	Certificate	0	0	100
Total		**33**	**100**	

Source: Primary source

Figure 7: Level of education of the respondents

47
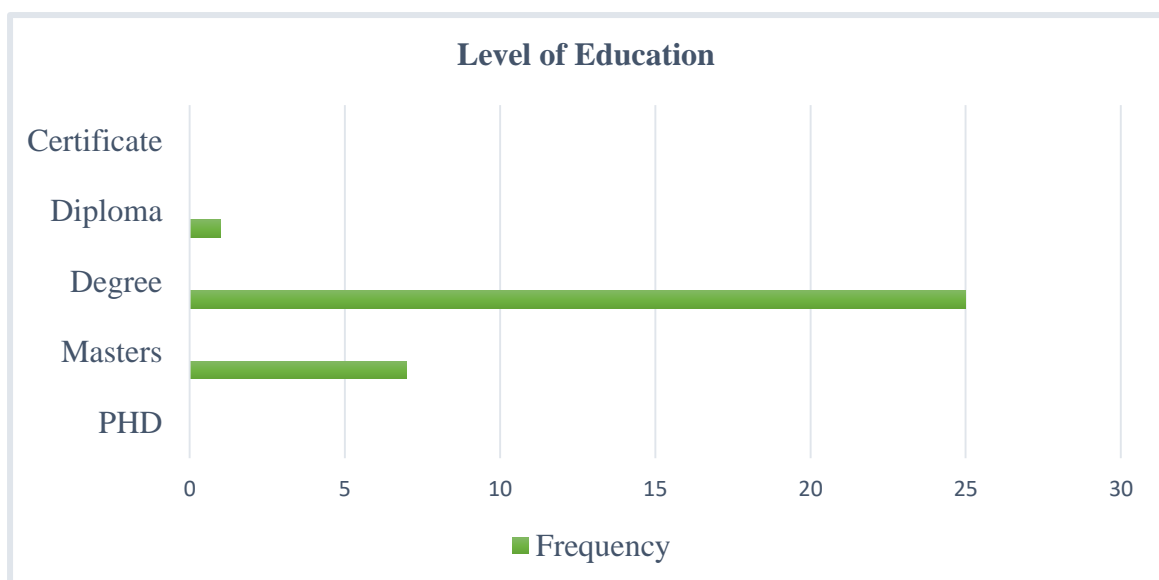
The majority of the respondents were 25 with Bachelors' degree (75.8%) while on the other hand, those with PhD and certificate were 0 comprising of 0% of the sample. In addition, those with Diploma and Masters Level constituted 3.0%, and 21.2% respectively. This implies that most bank customers can easily understand the functioning of the infrastructures put in place by commercial banks such as ATM operations.

These findings are consistent with the report on the State of Financial Literacy in Uganda carried out recently. Nathan (2014) reported that notwithstanding the fact that 85% of Ugandans had access to financial services (up from 70% in 2009), 56% of Ugandans said they would not always budget before they engage in financial transactions while only 21% revealed that they always keep track of their cash flow and only 10% make sure that there is always money left at the end of the month. According to his literature therefore, this data indicates a strong need for financial literacy interventions that educate people on how to plan, budget and keep track of their money (Nathan 2014).

Table 6: Respondents' years of service in the bank

Year of service for respondents				
		Frequency	**Percent**	**Cumulative Percent**
Valid	Less than 1 year	1	3.0	3.0
	1-2 years	2	6.1	9.1
	3-5 years	8	24.2	33.3
	6-9 years	17	51.5	84.8
	10+	5	15.2	100
Total		**33**	**100**	

 Source: Primary Data

Figure 8: Respondents year of service
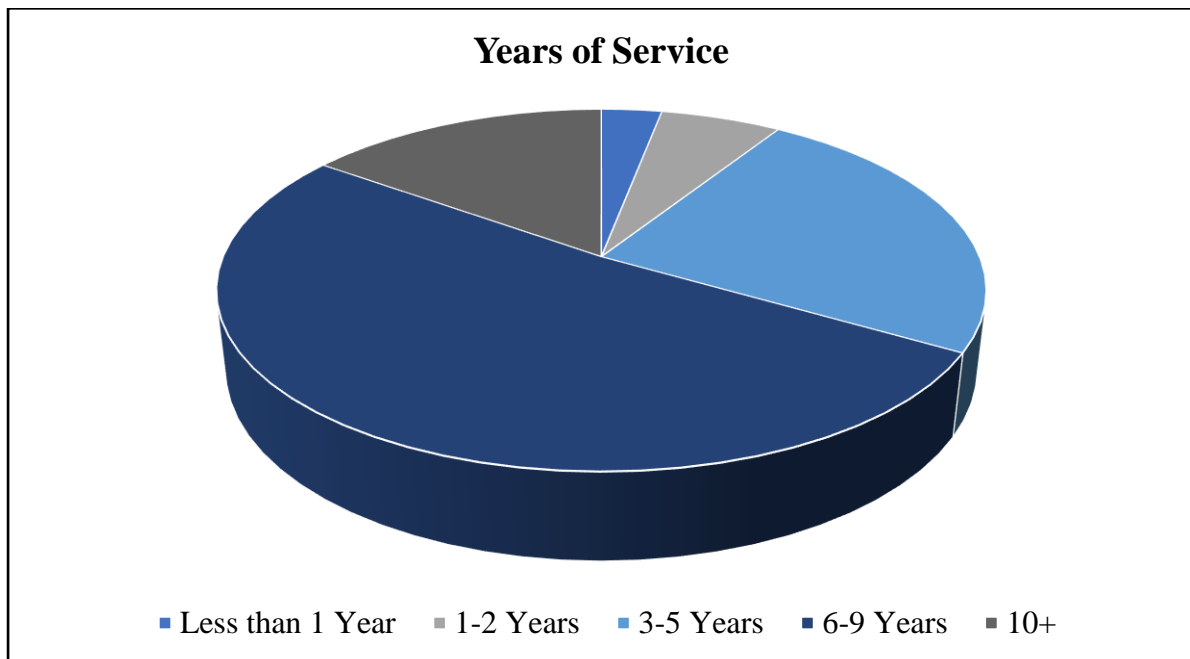
The results above show that most of the staff employed by the bank are qualified to implement the digital migrations use and adoption.

4.2.Effect of digital migration on financial performance

The respondents were asked whether electronic banking has had a positive, negative or no impact on the financial performance of the bank. Their responses were as in the table below:

Table 7: Effect of digital migration on financial performance

Effect of Digital Migration	Responses	Percentage (%)
Positive	31	93.9
Negative	02	6.1
No effect	0	0
Total	**33**	**100**

Source: Primary Data

Figure 9: Effect of digital migration on financial performance
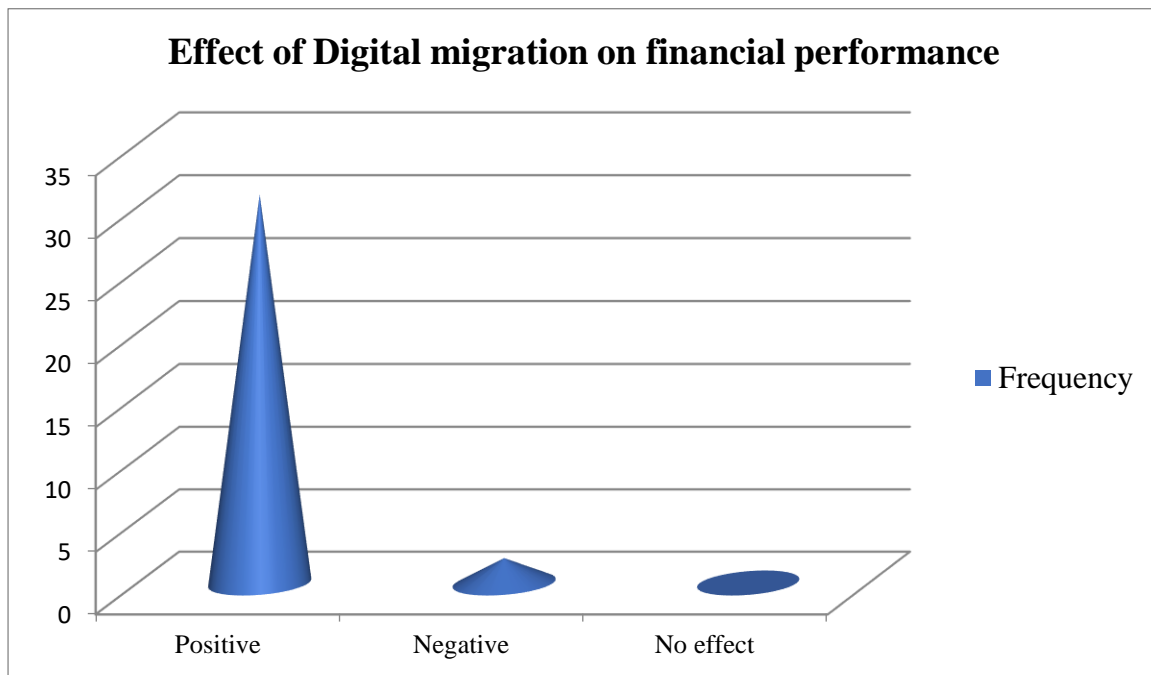
The figure and table above show that 93.9% of the respondents agreed that Digital Migration has a positive effect on the financial performance of commercial banks, while 6.1% of the respondents thought it had a negative impact on the financial performance of banks their reason being security of Digital migration solutions. 0% of the respondents indicated that digital migration had no impact. From the above findings, it is clear that we can conclude that Digital migration has had a positive impact on the financial performance of commercial banks in Uganda and more so Stanbic bank. Researchers like Nasikye (2009) and Olivia (2011) agree to the same.

4.2.1 Cost

The respondents were asked if they think digital migration was costly to implement as part of the better way to serve the customers compared to traditional banking system infrastructures and reward. Their response was recorded in the table below;

Table 8: Cost of implementing digital migration solutions

Response	Frequency	Percentage
Very Costly	29	87.9
Relatively costly	4	12.1
Not costly	0	0
Total	**33**	**100**

Source; Primary source

Figure 10: Cost of digital migration solutions
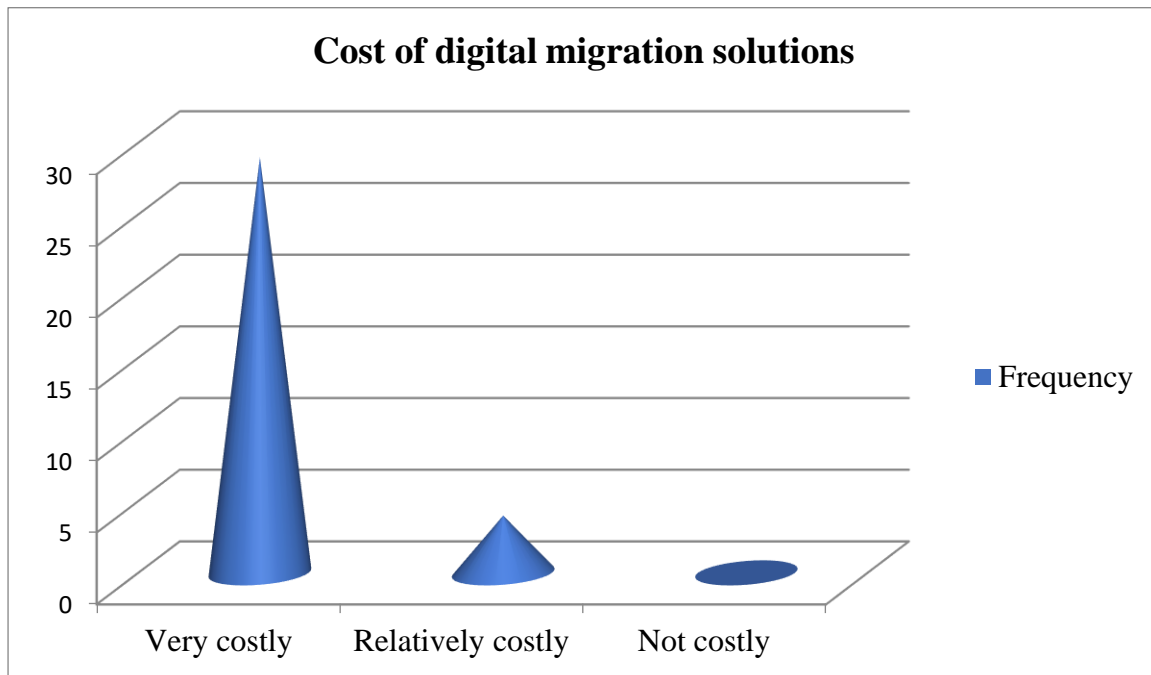
The findings illustrated in the figure above indicate that 87.9% consider digital migration to be costly while 12.1% take it to be relatively costly and 0% of the respondents consider it not costly at all. It can be concluded that establish a digital migration solutions infrastructure is costly in the short run.

Table 9; The profitability for Stanbic Bank from Digital transactions

Key Ratios	2013	2014	2015	2016	2017
PROFITABILITY					
Return on Average Equity	25.2%	30.3%	29.2%	30.3%	25.3%
Return on Average Assets	3.1%	4.0%	4.2%	4.6%	4.0%
Net Interest Margin	7.8%	8.3%	8.6%	9.0%	7.1%

Source: Secondary data from Stanbic bank reports.

Figure 11 :The profitability for Stanbic Bank from Digital transactions
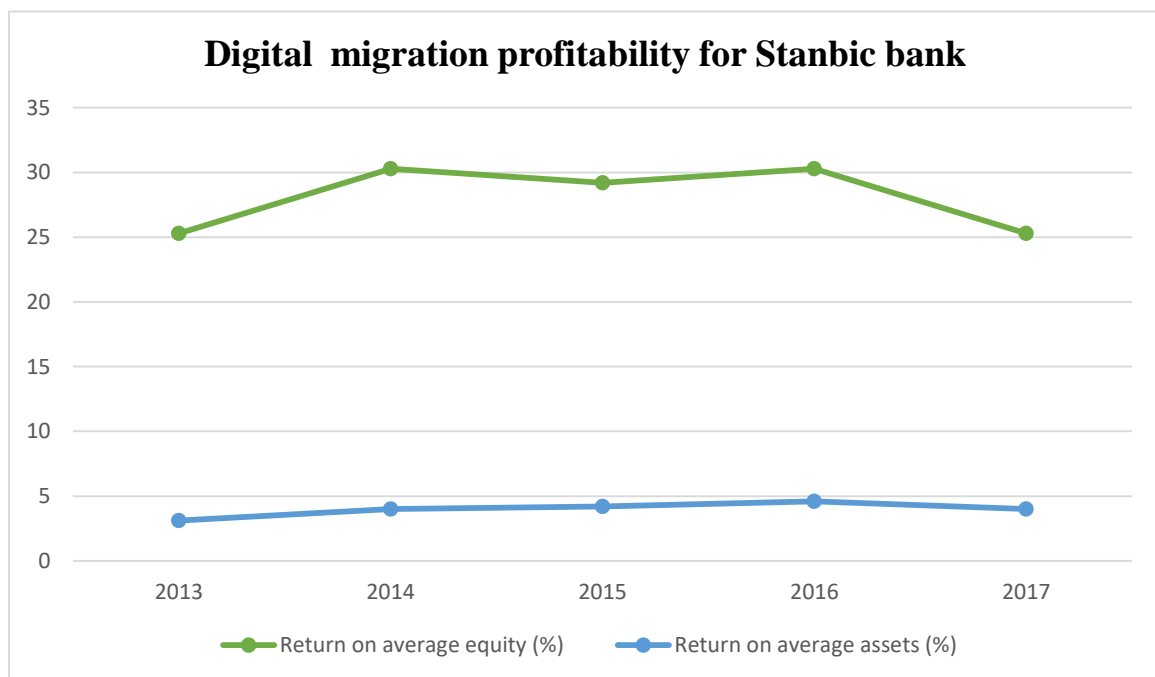
The above secondary data was gathered through the interview that was held with the Branch manager who was so impressive of digital technologies in regard to branch performance and the positive shift of the branch Profit and Loss figures. Feedback from the branch manager clearly showed that commercial banks should embrace digital solutions.

'I have worked for Stanbic bank for ten years now but after the introduction of digital migration solutions, operational costs have reduced and there is consistent progress in profitability evidenced by our Business as Usual reports and the digital performance reports. Our customers are appreciating the seamless customer service provided by the alternative customer service channels''. **Branch manager Masaka branch**

The feedback from the branch manager when critically analysed by the researcher, agrees with the transaction cost theory by Hicks and Niehans (1983) who assert that the new innovations in technology help firms reduce their transaction costs hence reduced operational costs that lead to increased financial performance hence high returns on Investment.

Table 10; Digital Performance for the Stanbic Bank

Monthly						YTD		
			Vol			Vol		
USSD (*290#)	ATM	Internet Banking	USSD (*290#)	ATM	Internet Banking	USSD (*290#)	ATM	Internet Banking
31 007	101 536	355	3 854 256	31281692	284 837	147782	499243	1374
41 399	126403	1006	4163 909	-	807 529	170956	563442	4213
68 412	203 134	8 343	9 014 081	64844 716	8 202 789	272 504	909 381	36 305
33 348	86 073	538	3 345 271	24474 320	798 822	147 449	400 396	2 192
41 604	113 599	508	5 739 630	38705 748	792 968	198 224	584 730	2 002
215 770	630 745	10 750	26 117 147	159306 476	10 886 945	936 915	2957 192	46 086

Source; Secondary data

The above table clearly shows the different digital migration solutions used by Stanbic Bank. After analysing the report and interviewing the branch service manager in charge of digital performance, the researcher discovered that mobile banking is treated as USSD. The figures above indicate that ATMs have the highest transactions followed by USSD (Mobile banking) and Online banking with the least transactions.

4.3 Descriptive Analysis

The researcher used a Likert scale of Strongly Disagree (SD), Disagree (D), Not Sure (N), Agree (A) and Strongly Disagree (SA) was used. These descriptors were represented as 1, 2, 3, 4 and 5 respectively in the SPSS input spread sheet and used accordingly to generate percentages, means and standard deviations for the various study metrics

4.3.1 Mobile banking and financial performance

The mobile banking impact on the financial performance of commercial banks   was examined using four different metrics that is funds transfers, payment of bills. Card less or instant money and access to account balances through the mobile banking platform.

Table 11: Frequency Distribution of Mobile banking effect on financial performance.

Statements	SD	D	N	A	SA	TOTAL
Funds transfer has been made easy through mobile banking	33.3	12.1	18.2	6.1	30.3	100%
Payment of bills has made banking easy for the customers hence increased Return on deposits	18.0	6.1	27.3	18.2	30.3	100%
Cardless banking services have increased convenience	6.0	18.2	15.2	30.3	30.3	100%
There is easy access of account balances using the platform	0.0	0.0	0.0	36.4	63.6	100%

Source; Primary source

The results from the table above were as follows; in the context of funds transfer the results were 33.3% (SD), 2.1% (D), 18.2% (N), 6.1% (A) and 30.3% (SA).

The results for payment of bills were 18.0% (SD), 6.1% (D), 27.3% (N), 18.2% (A) and 30.3% (SA). The results for instant money or card less banking were 6.0% (SD), 18.2% (D),

15.2% (N), 30.3% (A) and 30.3% (SA). The results of access to account balances were, 0.0% (SD), 0.0% (D), 0.0(N), 36.4% (A), 63.6 (SA)

To gain greater insights into the mobile banking impact on the financial performance of commercial banks, the means and the standard deviations were generated through descriptive statistics of SPSS input spread sheet.

Table 12: Descriptive statistics for mobile banking effect on financial performance

Statements	N	Mean	Std. Deviation
Funds transfer has been made easy through mobile banking	33	2.88	1.673
Payment of bills has made banking easy for the customers hence increased Return on deposits	33	3.36	1.454
Cardless banking services have increased convenience	33	3.61	1.273
There is easy access of account balances using the platform.	33	4.64	.489
Valid N list wise	**33**		

Source; Primary source

From the table above, the means for the various metrics were; funds transfer (mean of 2.88), payment of bills (mean of 3.36), instant money or card less banking (mean of 3.61), and the access of account balances using mobile phone (mean of 4.64). The funds transfer metric with a mean of 2.88 indicates that the majority of the respondents tended to disagree with the metric. In this case, therefore they disagree that funds transfer have increased the financial performance of the bank through return on assets due to reduced costs.

This finding is in agreement with Olivia (2011) who noted that the use of mobile banking has obliterated the need of customers personally visiting the bank for such purposes as funds transfers directly reducing the cost of serving the customer.

On the other hand, the metrics payment of bills and instant money or card less banking, with means of 3.36 and 3.61 respectively indicated that the respondents tended to be uncertain on the measured metric. Finally, in the context of accessing of account balances using the mobile phone metric with a mean of 4.64 meant that most the respondents tended to agree with the metric that indeed the access of account balances using the mobile phone had improved on the convenience hence increased revenue through increased transactions. (Porteous, 2006) agrees with this finding. He notes that Cash transactions and account balances can be conducted using mobile banking and therefore mobile phone operators have identified m-banking payments systems as a potential service to offer customers, increasing loyalty while generating fees and messaging charges.

4.3.2 ATMs and financial performance

Table 13: Frequency distribution of ATM effect on financial performance

Statements	SD	D	N	A	SA	TOTAL
ATMs are convenient to use hence increased revenue	6.1	12.1	3.0	21.2	57.6	100%
There is an increase in the deposits done at the ATMs because of consistent sensitisation to the customers	6.1	3.0	12.1	30.3	48.5	100%
Reduced operational costs by the banks through use of ATMs.	3.0	12.1	6.1	33.3	45.5	100%

The results from the table above were as follows; in the context of convenience the results were 6.1% (SD), 12.1% (D), 3.0% (N), 21.2% (A) and 57.6% (SA). The results for increased transactions at the ATM were 6.1% (SD), 3.0% (D), 12.1% (N), 30.3% (A) and 48.5% (SA). The results for cost of operation were 3.0% (SD), 12.1% (D), 6.1% (N), 33.3% (A) and 45.5% (SA). To gain greater insights into the influence of ATMs on the financial performance of commercial banks, the means and the standard deviations were generated as shown below.

Table 14: Descriptive statistics for ATM impact on financial performance

Statements	N	Mean	Std. Deviation
ATMs are convenient to use hence increased revenue	33	4.12	1.293
There is an increase in the deposits done at the ATMs because of consistent sensitisation to the customers	33	4.12	1.139
Reduced operational costs by the banks through use of ATMs.	33	4.06	1.144
Valid N (list wise)	**33**		

From the table above, the means for the various metrics were; ATM convenience (mean of 4.12), increased transaction (mean of 4.12), cheaper cost of operation (mean of 4.06). It follows therefore that all three matrices indicate that the majority of the respondents tended to agree with the metrics therein. From the reviewed literature, Rose, (1999) agrees that ATMs are a cost-efficient way of yielding higher productivity as they achieve higher productivity per period of time than human tellers. Banker and Kauffman, (1988) also agree   that

although ATM systems have high fixed costs, they have lower variable transaction processing costs hence favouring financial performance of commercial banks.

4.3.3 Online banking and financial performance

Table 15: Frequency Distribution of Online banking effect on financial performance.

Statements	SD	D	N	A	S.A	Total %
Customers are safe with their transactions when they use online banking	24.2	9.1	33.3	15.2	18.2	100%
Reduced operational costs to increasing use of Online.	6.1	0.0	18.2	30.3	45.5	100%
24/7 access of the platform has increased hence increased transactions.	3.0	9.1	12.1	45.5	30.3	100%

Source; Primary source

The results from the table above were as follows; in the context of safety of transactions, the results were 24.2% (SD), 9.1% (D), 33.3% (N), 15.2% (A) and 18.2% (SA).

The results for reduced number of customers were 6.1% (SD), 0.0% (D), 18.2% (N), 30.3% (A) and 45.5% (SA). The results for convenience of online transaction were 3.0% (SD), 9.1% (D), 12.1% (N), 45.5% (A) and 30.3% (SA).

To gain greater insights into the influence of ATMs on the financial performance of commercial banks, the means and the standard deviations were generated as shown below.

Table 16: Descriptive statistics for Online Banking impact on financial performance

Statements	N	Mean	Std. Deviation
Customers are safe with their transactions when they use online banking	33	2.94	1.413
Reduced operational costs to increasing use of Online.	33	4.09	1.1
24/7 access of the platform has increased hence increased transactions.	33	3.91	1.042
Valid N (list wise)	**33**		

Source; Primary source

From the table above, the means for the various metrics were; Safety of online transactions (mean of 2.94), reduced customers flocking banking hall(mean of 4.09), convenience of online banking (mean of 3.91).It follows therefore that majority of the respondents generally do not agree with the first metric, while majority of respondents tended to agree with the metric that online banking has reduced numbers of customers flocking bank premises hence reduced operational costs(mean 4.09).On the online convenience metric the majority of the respondents tended to be uncertain (mean 3.91).Mutebi (2017) agrees that the safety of online transactions has come into question in recent years to the extent that banks need to do more to assure customers of the safety of their transactions or else they risk losing valuable customers.

Table 17;Uganda Internet Usage and Population Statistics:

YEAR	Users	Population	% Pen.	GDP p.c.*
2000	40,000	24,400,000	0.1 %	US$ 410
2006	500,000	28,574,909	1.7 %	US$ 280
2007	750,000	30,262,610	2.5 %	US$ 280
2008	2,000,000	31,367,972	6.4 %	US$ 300
2010	3,200,000	33,398,682	9.6 %	US$ 460
2016	11,924,927	38,319,241	31.1 %	US$ 670
2017	13,023,114	41,652,938	31.3 %	US$ 642

Secondary data: Per Capita GDP in US dollars, source: United Nations Department of Economic and Social Affairs.

Figure 12:Showing internet usage and population statistics
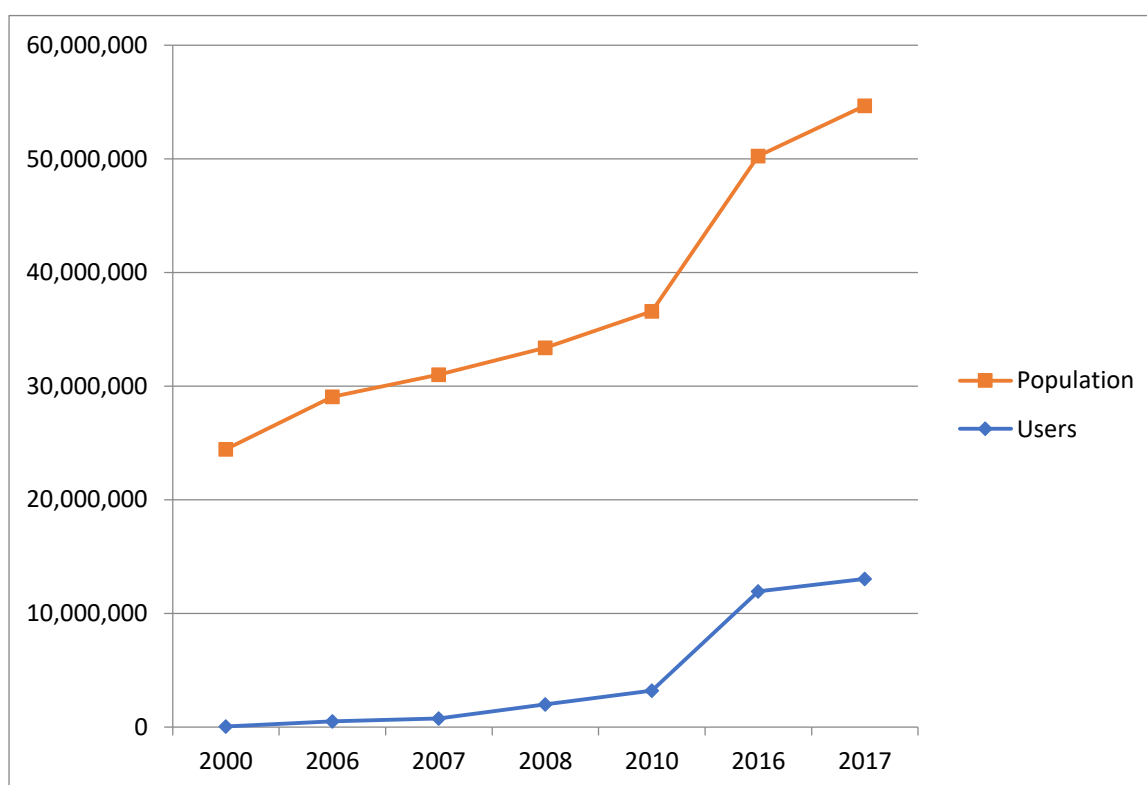
The United Nations Department of Economic and Social Affairs shows some statistics about Uganda internet usage and population statistics basing on the Per Capita GDP in US dollars. The report showed that in year 2000,the users were 40,000 against the population of 24,400,000 giving a 0.1% and Per Capita GDP in US dollars of US$ 410 but as years went by the more the population increased the more users of internet registered and as at 2017,the user were 13,023,114 against 41,652,938 population with a percentage of 31.3 % and the per capita GDP in dollars of US$ 642.This clearly shows a boost in internet users in current years which favour the success of online banking in the case study commercial bank.

4.4 Correlation Analysis

In order to measure the strength of the association between the variables, the researcher made use of the Pearson's coefficient of correlation. The coefficient determines the strength of a linear association between two variables and is denoted by *r* from which verbal description of the strength of the correlation was done using the guide that Evans (1996) suggests for the absolute value of (*r)*, where he positions (r) between 0.00- 0.19 as "very weak", 0.20-0.39- "weak", 0.40-0.59 "moderate", 0.60-0.79 "strong", and 0.80-1.0 as "very strong" correlations. Pearson's correlation coefficient was used to ascertain the presence or absence of linear correlation between the variables of digital migration and financial performance. The outcomes are as follows;

4.4.1 Results of the general relationship between digital migration and financial performance:

The general objective of this research was to identify the relationship between digital migration and financial performance. To do this, Pearson's correlation was used. The correlation table 4.9 below was used to show the nature of relationship between digital migration and financial performance.

Table 18: Correlation between digital migration and financial performance.

		financial performance	digital migration
financial performance	Pearson Correlation	1	.549[**]
	Sig. (2-tailed)		.000
	N	33	33
**. Correlation is significant at the 0.01 level (2-tailed).			

Source; Primary Data.

Pearson correlation coefficient from the table above indicates a moderate positive correlation between digital migration and financial performance (r= 0.549).

This implies that an improvement in the digital migration generally leads to improved financial performance of commercial banks in Uganda. This finding is consistent with Tamale &Twinomugisha (2012) who did a study on digital migration and financial performance in post bank and housing finance bank in Kampala. Their study revealed that there is a significant positive correlation between digital migration, and financial performance in commercial banks in Uganda.

4.4.2 Results of Correlation between digital migration attributes and financial performance.

The researcher was interested in finding out the nature of relationship between the three digital migration attributes and financial performance.

Table 19: Correlation coefficient; Digital migration attributes and financial performance

	ATMs	Mobile banking	Online banking	Financial performance
ATMs	1	.372**	.443**	.498**
Mobile banking	.372**	1	.460**	.324**
Online banking	.443**	.460**	1	.444**
Financial performance	.498**	.324**	.444**	1

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

Source; Primary Data.

4.4.3 Correlation between ATMs and financial performance.

Pearson correlation coefficient from the table above indicates a moderate positive correlation between ATMs and financial performance (r= 0.498). This implies that an improvement in ATM usage leads to an increase in overall financial performance and a decline in ATM usage would lead to a decline in financial performance.

The results obtained in the research are consistent with results from a research carried out by Cheruiyot (2010) on digital migration delivery and its impact on financial performance in the banking sector in Kenya.

His research shows that ATMs have positive correlation and high significance with customer service. Results obtained in another research by Anber&Shireen (2011) about digital migration perspectives and financial performance in commercial banks indicates that the weakest correlation was for ATMs and financial performance, while in another research carried out in by Ntongai&Ojera (2015) in their study of digital migration practices as a critical antecedent to financial performance, established that the association between ATMs and financial performance was positively weak.

4.4.4 Correlation between mobile banking and financial performance.

Pearson correlation coefficient from the table above indicates a weak positive correlation between mobile banking and financial performance (r= 0.324).

This implies that an improvement in mobile banking leads to improved financial performance. Research findings by Turihamwe (2014) are consistent with these findings. His research carried out on Standard Chartered bank, Mbarara branch, indicated that there was a significant positive relationship between mobile banking and financial performance, while Rashid (2013) concluded that mobile banking shows the least positive correlation with the financial performance amongst the digital migration dimensions.

Mobile banking was found to have positive relationship but it had no significant effect on financial performance. This was according to Osage (2012)

The association between mobile banking and financial performance was found to be moderately positive and equally significant (Ntogai&Ojera 2015).

4.4.5 Correlation between online banking and financial performance.

Pearson correlation coefficient from the table above indicates a moderate positive correlation between online banking and financial performance (r= 0. 444).

This implies that an improvement in online banking leads to an improvement in financial performance and a decline of the same, leads to a decline in financial performance. Worthy to note is the fact that access to the internet is only limited to 31.3% of the population who are mostly urban youth (Internet World Stat, 2017). The impact of online banking could therefore be higher on the financial performance of commercial banks if this percentage were to be increased.

This view is shared carried by Anber&Shireen (2011) who indicate a positively moderate correlation between online banking and financial performance while in another the association between online banking and financial performance was found to be moderately positive and sufficiently significant (Ntogai&Ojera 2015).

4.5 Regression Analysis.

The aim of carrying out regression analysis is to construct mathematical models which describe or explain relationships that may exist between variables (David *et al*.2003) as shown below.

The multiple regressions Table 16 below was helpful in mathematical modeling. The objective was to develop a statistically robust model which could explain as much of the variation in financial performance as possible, using the three digital migration attributes.

Table 19: Multiple regressions

Coefficients					
Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.280	.500		.561	.576
ATMs	.367	.088	.359	4.160	.000
Mobile banking	.114	.131	.076	.870	.386
Online banking	.261	.094	.250	2.772	.006

Source; Field Data, July 2017

The multiple regression table above shows:

a) **Un standardized coefficients** which indicate how much the dependent variable (financial performance) varies with the individual independent variable, when all other independent variables are held constant.

b) The **Beta** coefficients which indicate the extent to which digital migration dimensions influence financial performance in SBU-Masaka branch.

c) Std. Error – These are the standard errors associated with the coefficients.

d) t and Sig. – These are the t-statistics and their associated 2-tailed p-values used in testing whether a given coefficient is significantly different from zero. Using an alpha of 0.05.

From the table 4.10 above ATMs (Beta =0.359) explain 35.9% of financial performance, while online banking (Beta =0.25) explains 25% and lastly mobile banking which exhibited the least effect on financial performance (Beta=0.076) explaining 7.6%. A linear mathematical model was formulated in the form: **Financial performance = a + β_1 (A) +β_2 (M) + β_3(O)**

Where: -

    i.   **a-**is the intercept of the regression line**,**

    ii.   **A**-ATMs, **M**-mobile banking and **O**-online banking.

    iii.   **β_1,β_2, and β_3** are the gradients or literally the individual contribution to the dependent variable of the three independent variables.ie ATMs, Mobile banking, Online banking respectively.

There fore the general relationship between digital migration and financial performance was expressed mathematically as:

Financial performance = 0.280 + 0.367(**A**) + 0.114(**M**) +0.261(**O**)

4.6 Conclusion

In conclusion, basing on the above findings, digital migration solutions are of great advantage to commercial banks basing on the case study bank. To the respondents, convenience, low transaction costs and increased financial performance have been spotted out as the advantages of digital migration solutions. The bank employees spotted out high maintenance costs and some customers are not yet digital savvy. But the benefits outweigh the demerits.

CHAPTER FIVE:

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

In this final chapter, a summary of the study is given in reference to the research objectives and this is followed by a conclusion and recommendations for the bank and for further research.

5.1 Summary of findings

The findings of the research are summarised below:

5.1.1 The general relationship between digital migration and financial performance

ATMs (Beta =0.359) explain 35.9% of financial performance, while online banking (Beta =0.25) explains 25% and lastly mobile banking which exhibited the least effect on financial performance (Beta=0.076) explaining 7.6%. The general relationship between digital migration and financial performance of commercial banks was expressed mathematically as:

Financial performance $= 0.280 + 0.367(\mathbf{A}) + 0.114(\mathbf{M}) + 0.261(\mathbf{O})$

5.1.2 The effect of mobile banking on financial performance.

There is a weak positive correlation between mobile banking and financial performance (r= 0.324). This implies that an improvement in mobile banking leads to improved financial performance.

5.1.2.1 Conclusion for the objective

From the findings of the study; the study concludes that mobile banking has contributed positively to the financial performance of commercial banks in Uganda basing on the sampled case study. This could be attributed to the trends recorded in the variables where the number of users and services offered had a positive and significant influence on financial

performance of commercial banks in Uganda. This therefore means that the more clients a bank has in the mobile banking platform and the higher the amount of money transacted through mobile banking the better the financial performance of a commercial bank. It was revealed that m-banking service can be accessed any time 24 hours where one need to register with the bank to access m-banking services provided by Stanbic bank (Uganda). Majority of the respondents agreed that payment of bills can be made through m-banking technology.

The findings for the objective are in agreement with Olivia (2011) who noted that the use of mobile banking has obliterated the need of customers personally visiting the bank for such purposes as funds transfers directly reducing the cost of serving the customer

5.1.3 The effect ATMs on financial performance.

There is a moderate positive correlation between ATMs and financial performance (r= 0.498). This implies that an improvement in ATM usage leads to an increase in overall financial performance and a decline in ATM usage would lead to a decline in financial performance.

5.1.3.1 Conclusion for the objective

Most of the respondents rated the services/functions of the ATM as effective, 57.6 % of the respondents strongly agreed that ATMs are convenient to use and costs for using ATMs is minimal on the side of the bank hence increased financial performance.

The conclusion agrees with Caprio etal (2005) who argue that although ATM systems have high fixed costs, they have lower variable transaction processing costs hence favouring financial performance of commercial banks. It is the goal of banks to offer competitive

services and keep an expanding base of satisfied customers to remain competitive and profitable

5.1.4 The effect of online banking on financial performance

There was a moderate positive correlation between online banking and financial performance (r= 0. 444). This implies that an improvement in online banking leads to an improvement in financial performance and a decline of the same, leads to a decline in financial performance

5.1.4.1 Conclusion for the objective

The study concludes that online banking is being used to improve financial operations. The banks have put in place measures become more competitive by keeping pace with the technological developments. It can also be noted from the findings on the number of internet users that the numbers keep increasing from one year to another. This shows that customers are appreciating and embracing online banking. This could be attributed to the advantages offered by online banking which include convenience and flexibility.

The above conclusion agrees with literature from Anber&Shireen (2011) who indicate a positively moderate correlation between online banking and financial performance while in another the association between online banking and financial performance was found to be moderately positive and sufficiently significant (Ntogai&Ojera 2015).

5.2 General conclusion

Digital migration represents a massive opportunity for banks to engineer a closer relationship with their customers, moving from a product provider to a virtual advisor. As such, digital migration has the potential to drive substantial improvements in banks' financial and operational performance. Benefits can include boosting revenues per customer by more than

50%, increasing customer penetration by more than 30% and reducing operating costs by up to 20%. Nonetheless, the process of digitization remains far from finished.

5.3 Recommendations

Banks should embark on educating and creating awareness among their customers on the benefits of electronic banking and the charges involved.

The study has shown that digital migration has a positive effect on the financial performance of the banks and therefore they should offer more targeted digital services as well as come up with more technology based services that are easily reachable by customers.

Based on the above findings, the study recommends that; first, the digital migration service provider should lower its transaction charges further since over 25% of the respondents felt it was a bit expensive. Secondly, the service provider should reduce the procedure followed in accessing one's bank account since it was not certain whether it is easy to access banks account from clients' phone for transactions. Thirdly, the service provider should work out mechanisms to avoid remittance delays sine it was felt that sometimes there occurs remittances delay.

Further still, more stringent measures should be put in place to make it impossible for unauthorized person to transact money in the account without owner's approval.

Constant and consistent check-ups should be done on these digital migration solutions like ATMs in order to avoid network or service break downs and any other possible problems that may inconvenience the users.

The study recommends that the banks should lower the transaction charges incurred by customers, reduce time taken to complete transaction and improve the quality of mobile banking services so as to motivate them use the M-banking services. This will increase the number of transactions and hence improve the financial performance of the commercial banks.

5.4 Suggestion for further research

This study was done only on the commercial banks in Uganda. The study can also be extended to other financial markets such as capital and insurance companies to understand the implication of digital migration on the overall financial markets in Uganda. This is so because current banking innovation such as electronic money is targeted to include the rural marginalized mostly served by micro finance institutions in the banking network. There is need therefore to study to study adoption and use of ICT by Micro finance institutions.

In addition, the study proposes that research be done in Uganda on the influence of digital migrations on the growth of the country's real gross domestic product in order to establish the residual effect of Digital migration solutions on Uganda's economy. This will enable the banks and Government understand how digital solutions usage translates to the country's economic performance instead of looking at its benefits in isolation.

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APPENDIX 1: The Questionnaire

QUESTIONNAIRE FOR THE STAFF OF STANBIC BANK.

Am Namazzi Dorothy a student of Uganda Martyrs University conducting research on**"Digital migration and its Effect on financial performance of commercial banks in Uganda**: Comparative study on Stanbic Bank Masaka Branch**"** for the bachelor's degree in Business Administration and management, kindly spare some of your valuable time to fill up the questionnaire. The information collected shall be used for academic purposes only. The questionnaire is meant for academic research purposes and shall not be used for any purpose whatsoever. Kindly note the following;

- Kindly do not write your name or contact on the questionnaire.

- Tick the appropriate answer and in cases where comments are needed respond accordingly

- In cases of difficulty please ask for assistance.

- There should be no victimization of whatever kind based on the answers provided and any persons using the responses to judge or victimize shall be liable to legal action.

Thanks, in advance.

PART ONE:

Background information

1) **Gender:**

MALE	FEMALE

2) **Age (In years)**

18-30	31-42	43-54	55+

3) **Qualification (Level of education attained)**

Certificate	Diploma	Degree	Masters	PHD

4) **Total years of service in banking organization**

Less than 1 year	1-2 years	3-5 Years	6-10 Years	10+ years

5) **Category of staff position held in the bank**

Supervisory role	Operational role

PART TWO: MOBILE BANKING;

The statements below are intended to evaluate the Impact of mobile banking on the financial performance of commercial banks in Uganda. Case study Stanbic bank Masaka branch.

1-Strongly Disagree, 2-Disagree, 3-Not sure, 4-Agree, 5-Strongly Agree

No.	Statement	1	2	3	4	5
1	Funds transfer has been made easy through mobile banking					
2	Bill payment has made banking easy for the customers leading to increased return on deposits.					
3	Card less banking services have increased convenience to clients					
4	There is periodic Analysis on digital returns, costs and liquidity					
5	There is a dedicated leader to handle digital migration developments					
6	There is easy access of account balances using the platform					
7	Safety from fraud is one the considerations for using mobile banking.					
8	Low transaction costs attract customers to use mobile banking					
9	Convenience of using the service has increased return on deposits.					
10	Customers fill in forms to be registered on the platform					

What are some of the services offered using mobile banking?

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

The following statements are intended to explain the extent to which ATMs influence the financial performance of commercial banks; Case study Stanbic Bank Masaka Branch.

1-Strongly Disagree, 2-Disagree, 3-Not sure, 4-Agree, 5-Strongly Agree

	Statements	1	2	3	4	5
1	ATMs are convenient to use hence increasing on daily transactions					
2	Operation and maintenance of ATMS is cheap					
3	ATMs are often preferred as alterative channels to queuing in banks					
4	Reduces operational costs by the banks through use of ATMs					
5	There is an increase in the deposits done at the ATMs because of consistent customer sensitisation					
6	There is an increase in utility payment, balance inquiry, withdrawing and mobile money services.					
7	There is a tracking system for ATM transactions monthly to help in evaluation of the service					
8	The ATMs are up and running 24/7 year-round					
9	Staff have enough knowledge about ATM services.					

11. What are some of the services provided by the ATMs?

…………………………………………………………………………………………

…………………………………………………………………………………………

………………………………………………………………………………………….

Are there any challenges that tend to restrict customers from using the ATM?

Yes ☐   No ☐

If Yes kindly list a few of them

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

Has your bank done anything to avert such problem/s above?

Yes ☐   No ☐

What would you suggest your bank should do in order to avoid re-occurrences of such problems in future?

…………………………………………………………………………………………

………………………………………………………………………………………….

PART FOUR: ONLINE BANKING

The following statements are intended to explain how online banking has impacted the financial performance of commercial banks in Uganda. Case study Stanbic Bank Masaka Branch.

1-Strongly Disagree,2-Disagree,3-Not sure,4-Agree,5-Strongly Agree

	Question	1	2	3	4	5
1	There is Increased revenues through Online banking					
2	Customers are safe with their transactions when they use online banking					
3	Reduced operational costs have led to increased use of Online.					
4	24/7 access of the platform has increased accessibility hence increased transactions.					
5	There is sufficient expertise that develops and evaluate online usage					
6	Online banking has increased turnaround time on business transactions					

7. What are the obstacles that prevent your business from taking advantage of digital migration?

1) Costs are too high

2) Our customers are not digital savvy

3) Concerns about security

4) Too low digital competence among our employees

8. Basing on customer feedbacks regarding online banking, what are their reasons for choosing online banking services?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

…………………………………………………………………………………………………..

9. What online banking features do customers often use

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

Is there any risk regarding online transacting?

Yes No

If Yes, kindly list some of them below

……………………………………………………………………………………………………

……………………………………………………………………………………………………

……………………………………………………………………………………………………

PART FIVE: FINANCIAL PERFORMANCE

1-Strongly Disagree,2-Disagree,3-Not sure,4-Agree,5-Strongly Agree

Statements	1	2	3	4	5
There is an increase in revenue through increased in adoption of digitization platforms					
The cost base of the bank has reduced due to digital migration					
Digital migration has increased service alternative channels in the bank					
The bank's investment in technology has increased financial revenues					
Cybersecurity has been considered in the development digital solutions					
There are guidelines and policies established to guide digital usage.					

How has Digital migration impacted on the financial performance of this bank?

Positively ☐

Negatively ☐

No impact ☐

How costly is digital migration to the bank as compared to traditional banking

Very costly ☐

Relatively costly ☐

Not costly ☐

Digital migration has seen the bank rise in terms of financial performance since its adoption.

Yes No   ☐   ☐

If yes, kindly share a brief of a successful story about digital migration in your bank

………………………………………………………………………………………………

………………………………………………………………………………………………

Thanks, and be blessed

INTERVIEW GUIDE

1. Why do you think commercial banks are currently investing highly in Digital technologies?

2. How is your bank facing new digital competition?

3. Any tips being used for a successful digitalisation of the bank processes and transactions.

4. Regarding digital solutions like ATM, mobile banking and Online banking, which on do you think fetches more revenue to the bank and why

5. How often does the bank evaluate the performance of the digital tools efficiency and effectiveness?

6. Do you experience frequent network breakdowns in any solution?

7. Are you scared of being laid off at work due to digital migration of your bank?

8. Are the internet service providers and ATM service providers (NCR) efficient in delivery?

9. Do the digital solutions work for your customer who is not in Uganda currently

10. Kindly give a brief SWOT (Strength, Weaknesses, Opportunities and Threats) analysis regarding digital migration in relation to Stanbic Bank

It was a pleasure having a one on one with you

APPENDIX 3: Letter of Introduction

Appendix 4: Internet/online banking application form

Channel application and agreement

Customer details

| Title | ☐ Mr | ☐ Mrs | ☐ Miss | ☐ Dr | ☐ Other (Please specify) |

Surname

First names

Identity/passport number

Date of birth (YYYY-MM-DD)   Mobile number

Email address

CIF Number ☐☐☐☐☐☐☐☐☐☐☐☐

Internet banking/Mobile banking (WAP and USSD) Registration

Internet banking user ID/CIF ID

☐ Registration   ☐ De-registration

Reason for de-registration

Internet banking password

☐ Password received   ☐ Password reset   ☐ Re-issue of user name

Declaration of password secrecy

I, _____ (full names)
undertake to be held solely responsible for my password issued and therefore it should not be told to anyone under any circumstances.

MyUpdates (SMS and email alerts) - Registration

☐ Registration   ☐ De-registration   ☐ Notifcation

Reason for de-registration

Alert schemes (Please tick)

	Account number	Threshold limit	Default	Transactional	Value added	Cheque	Loan	E-Banking
1			✓					
2			✓					
3			✓					
4			✓					
5			✓					
6			✓					

Preferred contact times   ☐ Any time (24 x 7)   ☐ Extended hours (6am to 10pm)   ☐ Off ce hours (8am to 5pm)

*This limit def nes when you will receive alerts.

Appendix 5: ATM application form

Stanbic Bank
A member of Standard Bank Group

Shaded areas for bank use only

Branch where account held	Account number
Full name of customer	
Mother's maiden name	
Identity / Passport document number	
Home address	Postal code
Telephone number (home)	Telephone number (work)

A New cardholder

I hereby apply for the following card to be issued to me or the authorised user (subject to the Bank's terms and conditions issued from time to time

☐ Auto Bank Card   ☐ Secondary card to be issued to _____   ☐ Limit _____

Account number _____   Power of attorney verified   Yes ☐   No ☐

Full name(s) of authorised user

B Linking of accounts

☐ Please link the undermentioned account(s) which I am entitled to use on my AutoBank card

Type of account	Name of account holder	Account number	Branch code number
1.			
2.			
3.			
4.			

C Linking of accounts

☐ Please delink the undermentioned account(s) from my AutoBank card which I am entitled to use

Type of account	Name of account holder	Account number	Branch code number
1.			
2.			
3.			
4.			

D Replacement / retained card

☐ As my card has been retained by an Automated Teller Machine, please return it to me

☐ As my card has been lost /stolen / damaged, please order me a new Autobank Card (delete the inapplicable word)

☐ As I have forgotten my PIN, please issue me with a new card

Date Instruction / Notification received	(YYYY-MM-DD)	Time of instruction / Notification received	Charges recovered for card	Yes ☐ No ☐
Customer's signature			Date (YYYY-MM-DD)	
Initial/Signature/ Identity document verified by		Date basic data submitted	Authorised signature	

E To be completed when collecting card (positive identification is to be obtained)

☐ Please issue my ATM card to me. I agree to be bound by the "Terms and Conditions for use of the Autobank Cards"

☐ Please issue a replacement card to me

Customer's signature   Initial/Signature/ Identity document verified by

For Office Use Only
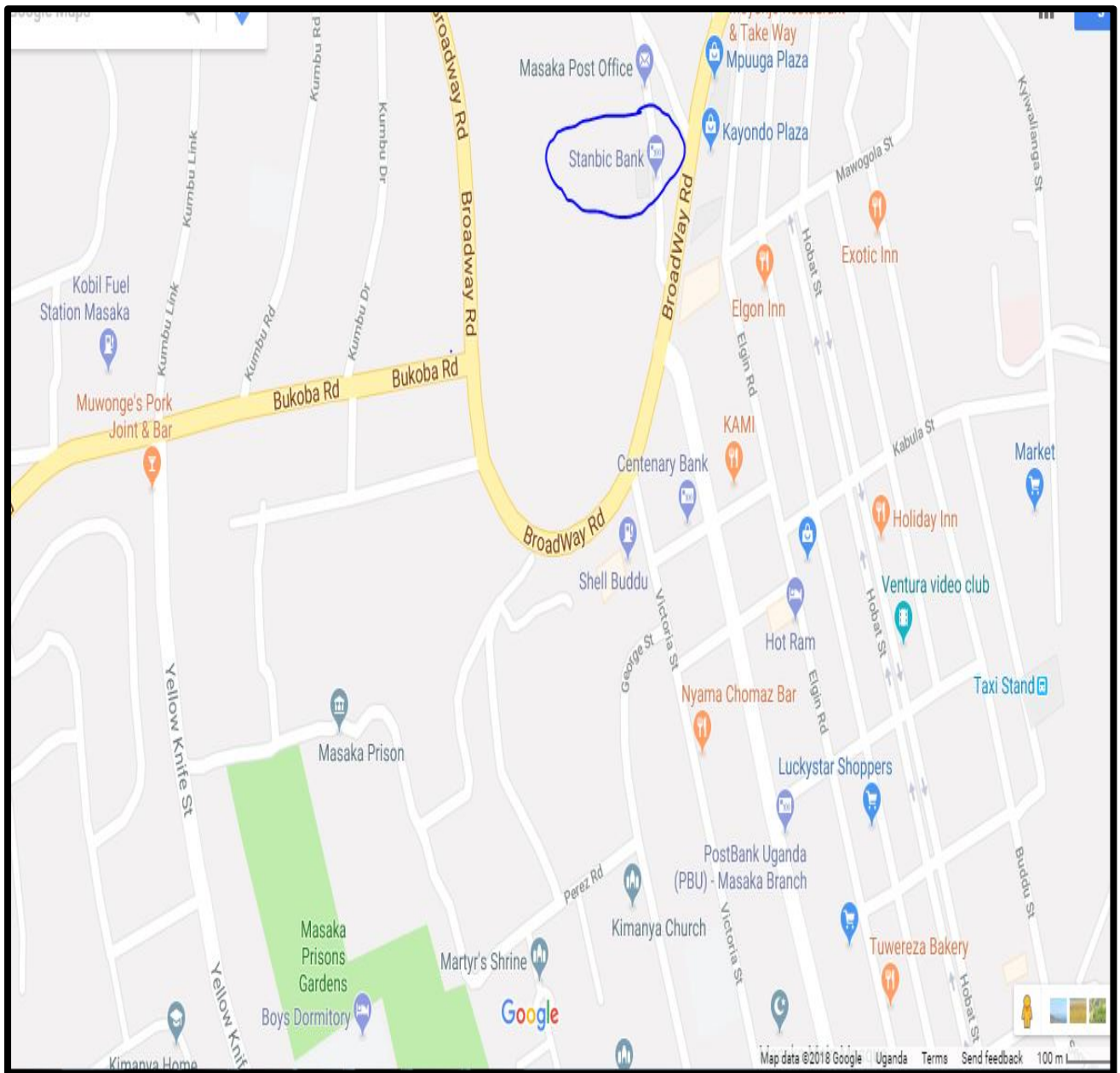
CIF Number

Card Number

Card Tracking Number

Zim 07/196422 2005-05

Appendix 6:

KREJCIE MORGAN (1970) TABLE OF DETERMINING SAMPLE SIZE FOR A

GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
       "S" is sample size.

Appendix 7:

The location of Stanbic Bank Masaka Branch

Source: Google Maps