

**ADOPTION OF ICT BANKING SERVICES AND PERFORMANCE OF SELECTED  
COMMERCIAL BANKS IN KABALE MUNICIPALITY: A CASE OF EQUITY AND  
STANBIC BANK**

**BY**

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**DECLARATION**

I, Ndayambaje Denis, declare that this is my original work and it has never been submitted to any Institution for any academic award.

**Signature .....** **Date.....**

**NDAYAMBAJE DENIS**

## **APPROVAL**

This dissertation titled ‘Adoption of ICT banking services and performance of selected commercial banks in Kabale municipality: a case of Equity and Stanbic bank’ has been conducted under our supervision and it is ready for submission.

**DR. ARTHUR SUNDAY**

**Supervisor**

**Signature..... Date .....**

**DR. NINA OLIVIA RUGAMBWA**

**Supervisor**

**Signature..... Date.....**

## **LIST OF ABBREVIATIONS**

ATMs	Automated Teller Machines
CGAP	Consultative Group to Assist the Poor
E-HRM	Electronic Human Resources Management
HRM	Human Resources Management
ICT	Information and Communication Technology
IDT	Innovation Diffusion Theory
IDT	Integrated Digital Technology
KPIs	Key Performance Indicators
PCs	Personal Computers
PRA	Participatory Rural Appraisal
TV	Television

## **DEDICATION**

I dedicate this research report to my parents, Mr. Nathan Mutabazi and Mrs. Margret Mwavita, for their encouragement and support they rendered to me during the entire process and may the Almighty God reward them abundantly.



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“Glory to the Almighty God”

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## **ABSTRACT**

The study assessed adoption of ICT banking services and performance of commercial banks in Equity and Stanbic, Kabale District. The objectives of the study were to identify ICT banking services offered to clients to determine the effect of integrating ICT banking services on performance of the commercial banks and to analyse the challenges affecting adoption of ICT banking services in the banks. A mixed methods approach and a cross-sectional research design were used. The study population consisted of 283 respondents. Data was collected using questionnaires, interviews and the observation method. Both random and non-random sampling techniques were used including: cluster, simple random, stratified and purposive sampling to recruit respondents in the study. Findings revealed that ICT banking services offered to clients at Equity and Stanbic banks included: electronic banking services, internet banking services, mobile banking services, decision support system and social media outreach. The effect of integrating ICT banking services on performance of the commercial banks indicated that ICT improved the quality of banking services, and reduced long queues in the banks. The challenges affecting the adoption of ICT banking services included: communication errors, slowing down ICT systems and equipment, ignorance by majority of the customers about ICT usage especially online services, failure of the bank customers to own ICT gadgets to access online services and lack of information on available ICT banking services. The study recommended that the banks should promote use of ICT services to all their clients since ICT enhances service quality, constant and consistent service availability, reduces errors and data redundancies and saves time by offering fast service delivery. Banks should incorporate and invest in technology since technology is an important aspect in the alignment of information systems with business strategy.

## **CHAPTER ONE: INTRODUCTION**

### **1.0. Introduction**

This chapter presents the Background of the study, Statement of the problem, Objectives of the study, Research questions, Scope of the study, Justification of the study, Definition of key terms and Conceptual framework.

### **1.1. Background of the study**

#### **Historical perspective**

The world has witnessed great development and rapid change in the global banking environment with ICT taking a centre stage in every aspect of human life (Riordan, 2012). Consequently, the banking industry has undergone drastic changes such as restructuring, ease of access to clients' information, lower costs of producing existing financial services, and adopting ICT in the daily operations of banks that has changed the banking sector both domestically and internationally (LFB, 2010).

ICT is an umbrella term that covers computer hardware, software, communication and network systems (Andersen, 2011). Sajuyigbe and Alabi (2012) posited that ICTs encompass technologies that can process different kinds of information (audio, video, text, and data), and facilitate different forms of communications among human agents, and among information systems. ICT innovations consist of software developed to improve production processes and performance in firms (Lawrence, 2010). In the financial services industry, innovation is viewed as the act of creating and popularizing new financial instruments, technology and markets, which facilitate access to information, trading and means of payment (Solans, 2013).

Before the introduction of ICT business transactions among commercial banks in Uganda the banking services were done manually (Mwega, 2014). For instance, ledger books, paper invoices, access to banking services and business trips that were done manually have been replaced with online billing and payments, elaborate website with product information and real-time teleconferencing across continents and time zones (Ojokuku & Sajuyigbe, 2012).

ICT has specifically resulted in a total alteration of the norms on the performance of commercial banks in Uganda and on the provision of client facilities in the banking sector. ICT advancement has also had considerable impact on the advancement of additionally accommodating and user-friendly banking facilities (Aliyu & Tasmin, 2012). Electronic banking structure has tuned into the key technology-driven change in carrying out financial operations for bank performance. Internet banking as an important part of a new technology has

presented a competitive advantage via cost reduction, and better satisfaction, trust and loyalty of clients. The costs associated with the maintenance of physical branches, marketing and labour can be reduced to a large extent through the adoption of ICT (Hernado & Nieto, 2007).

Evans and Sawyer (2009) highlighted that the internet has given banks the ability to communicate with customers in a personalized way without the need for face-to-face interaction, thus saving communications costs.

Rajput and Gupta (2011) emphasized that the most significant impact of ICT on the banking system might be seen on the payments system, in which traditional method (paper-based payments) have switched to modern technique (electronic-based payments) (DeYoung, 2004). This was evident in developed and developing economies as there was a dramatic reduction in costs by using advanced electronic payments (Berger, 2003; Frank & Oluwafemi, 2012).

ICTs have improved the general performance measurement and reporting that is now widespread across the private sector as well as the public sector of many industrialized and industrializing countries (Williams, 2013).

### **Theoretical perspective**

This study was guided by the diffusion of innovation theory. Deming (1999) developed the Diffusion of Innovation Theory (DOI) to explain ways in which innovation is espoused in the organizations in the same industry. The theory is built on execution of five major stages which encompass knowledge, persuading, decision, implementation and confirmation. Knowledge encompasses the awareness of new innovation and its importance amidst the potential stakeholders. Persuading is the formation of affirmative stances to the newly executed innovation (Gerald, Hafer, 1988). The intending beneficiaries of the innovation make a decision on whether to or espouse reject the new innovation whereas the last stage encompasses ratification on the advantages of the new innovation which will enhance the widespread adoption (Disyatat & Vongsinsirikul, 2003). This theory is relevant to the study due to the fact that Business Process Reengineering is a response to changes in the operating environment through adoption of innovations.

### **Conceptual perspective**

ICT banking services refers to automated banking services such as internet banking, Automated Teller machine (ATM) and Debit and Credit cards (Martins et al., 2014).

In order to ensure a high level of security, this service is developed on an infrastructure complying with the international information security standards (Ofori & Botchway, 2012). From the moment the authorized client is connected, any data exchange takes place under a secured protocol which uses bytes encryption key and an algorithm. In this study, ICT banking services refer to the automatic banking services provided by the banks to their clients by use of internet.

Business organizations and the banking sector in particular are operating in an environment characterized by a competitive and complex climate (Agbolade, 2011). In most developed countries, technology is a central element to dealing with challenges in modern banking, such as lowering costs and enabling efficiency improvements (Verrecchia, 2016). Most banks worldwide are highly successful at utilizing ICTs to provide efficient banking services to their customers (Elgahwash & Freeman, 2011). Electronic banking platforms have facilitated provision of automated banking services such as home banking services via the internet and use of Automated Teller Machines (ATMs), leading to timely and efficient banking services and products for clients (Porter & Miller, 2011).

Ongori and Migiro (2010) argue that ICT has resulted into a revolution on the banks growth and on customer service. To keep up with the dynamics of the external environment, banks are investing in ICT as a way of moving to a knowledge-based society which is a key driver towards achieving economic growth and development of commercial banks in a country (San-Jose, 2010).

### **Contextual perspective**

Before the introduction of ICT, business transactions especially among commercial banks were done manually in Uganda, but after the introduction of ICT the use of sophisticated technology based on automation and interconnection of computers and other electronic devices are becoming the norm rather than exception (Masinge, 2010)

ICT has specifically resulted in a total alteration of the norms on the performance of commercial banks in Uganda and on the provision of client facilities in the banking sector (Leidner, 2014).

However, even with these benefits of internet banking, customers and institutions are still slow in adopting ICT banking services because of many challenges such as lack of top management's support for implementing ICT, inadequate training and limited technical knowledge of employees for handling ICT and resistance of employees for shifting to new technologies (Yiu,

Grant, Edgar, 2017). This study focused on ICT adoption in the banking sector in Kabale municipality because few studies have been conducted in this context.

## **1.2. Statement of the problem**

In the current era of information society, many business entities are embracing ICT in order to cope with the global needs of their customers and generation of accurate and reliable management reports (Verrecchia, 2016). The banking service industry in particular, has adopted the use of ICT services such as; the internet as an option to offer remote services to its customers as opposed to using only the traditional face to face service delivery (Hernando & Nieto, 2007). This has increased the service quality outreach to many remote parts of the world. Commercial banks in particular are doing this in order to keep pace with the demands of the world, to counter competition and to improve financial performance (Mastoori, 2009). ICT Banking services in form of Automated Teller Machines, mobile banking and internet banking are key to improving the performance of commercial banks (Mattila, 2016). Mobile banking also ensures that customers spend less time in the bank since the queues would be significantly reduced. Customers enjoy convenience in transacting from wherever they wish (Masinge, 2010). Unfortunately, both adoption and use of this channel has been slow in Uganda (Woherem, 2011). Despite acknowledging the ICT benefits in commercial banking services, Uganda has been slow in both adoption and usage of adequate modern innovation within its commercial banks (Abukhzam & Lee, 2010). This situation is still persistent (Joseph, 2020) where few Ugandans have the knowledge, skills, and behaviours to enable them effectively use digital devices such as smartphones, tablets, laptops and desktop Personal Computers (PCs) for purposes of communication, expression, bank services, collaboration, and advocacy. This scenario seems still evident in Kabale District especially, among clients of Equity and Stanbic banks in Kabale. Long queues are still a common sight especially at the beginning of the school term in Kabale municipality when school fees have to be paid and at the end of the month when salaries are usually paid out. This may be an indication of ICT adoption and usage challenges in the banking sector in Kabale District. It is against this background that the researcher developed interest to assess the adoption of ICT banking services and performance of selected commercial banks in Kabale municipality.

## **1.3. Objectives of the study**

### **1.3.1. General objective of the study**

The study assessed the adoption of ICT banking services and performance in Equity and Stanbic banks in Kabale District.



### **1.3.2. Specific objectives**

The specific objectives of this study included:

- i. To identify ICT banking services offered to clients at Equity and Stanbic banks;
- ii. To determine the effect of integrating ICT banking services on performance of the commercial banks;
- iii. To analyse the challenges affecting adoption of ICT banking services at Equity and Stanbic banks.

### **1.4. Research questions**

- i. What ICT banking services are offered to clients by Equity and Stanbic banks in Kabale District?
- ii. What are the effects of integrating ICT banking services on performance of commercial banks in Kabale District?
- iii. What challenges are affecting commercial banks (Equity and Stanbic) in adopting ICT banking services?

### **1.5. Scope of the study**

#### **1.5.1. Content scope**

The study's content scope was limited to ICT banking services provided, effect of ICT banking services on performance of commercial banks (Equity and Stanbic) in Kabale municipality and challenges affecting adoption of ICT banking in the specific banks.

#### **1.5.2. Time scope**

This study was conducted from April 2020 and it covered the adoption of ICT banking services and performance of commercial banks from the period of 2015-2020.

#### **1.5.3. Geographical scope**

The study was carried out at Equity and Stanbic banks in Kabale Municipality located in Kabale District. Kabale District is a highland district situated in South-Western Uganda bordered by Rukiga District to the north, the Republic of Rwanda to the East and South, Rubanda District to the West and Northwest.

### **1.6. Significance of the study**

The executive members of commercial banks in Uganda may learn from this study and understand how best ICT as a financial innovation strategy can be replicated in rural areas to improve business performance.

### **To the scholars**

This study adds value to the existing body of knowledge on the adoption of ICT banking in Uganda and challenges affecting the adoption of ICT banking services at Stanbic and Equity banks in Kabale Municipality.

### **1.7. Definition of key terms**

**Information Communication Technology (ICT)** is a term used to refer to the use of computers or any other process that helps to produce, manipulate, process, store, communicate, and/or disseminate information and it includes hardware, software, databases, networks and other related components which are used to build information systems (Shaukat & Zafarullah, 2010).

**ICT banking services** refers to automated banking services such as internet banking, Automated Teller machine (ATM) and Debit and Credit cards (Martins, 2014)

**A commercial bank** is a financial institution which performs the functions of accepting deposits from the general public and giving loans for investment with the aim of earning profit (Yazidu, 2015).

**ICT adoption** is defined as willingness to take the new innovation related to computer and internet (Palmer, 2011).

**Performance** is the results achieved from the act of working because they elicit strong association of the organization strategic goals, customer gratification and economic contributions (Hernando & Nieto, 2013).

### **1.8. Conceptual framework**

A conceptual framework is an analytical tool with several variations and contexts. It can be applied in different categories of work where an overall picture is needed (Colander & David, 2013). The adoption of ICT banking services in this study was an independent variable and performance of commercial banks was the dependent variable. ICT banking services leads to increase in profitability of commercial banks because these services make it easy for the clients to use them and adopt the use of technology in banking services. This includes use of Electronic banking, Mobile banking and ATM. These services enable the banks to be efficient in their services because of their convenience increasing banks profitability.

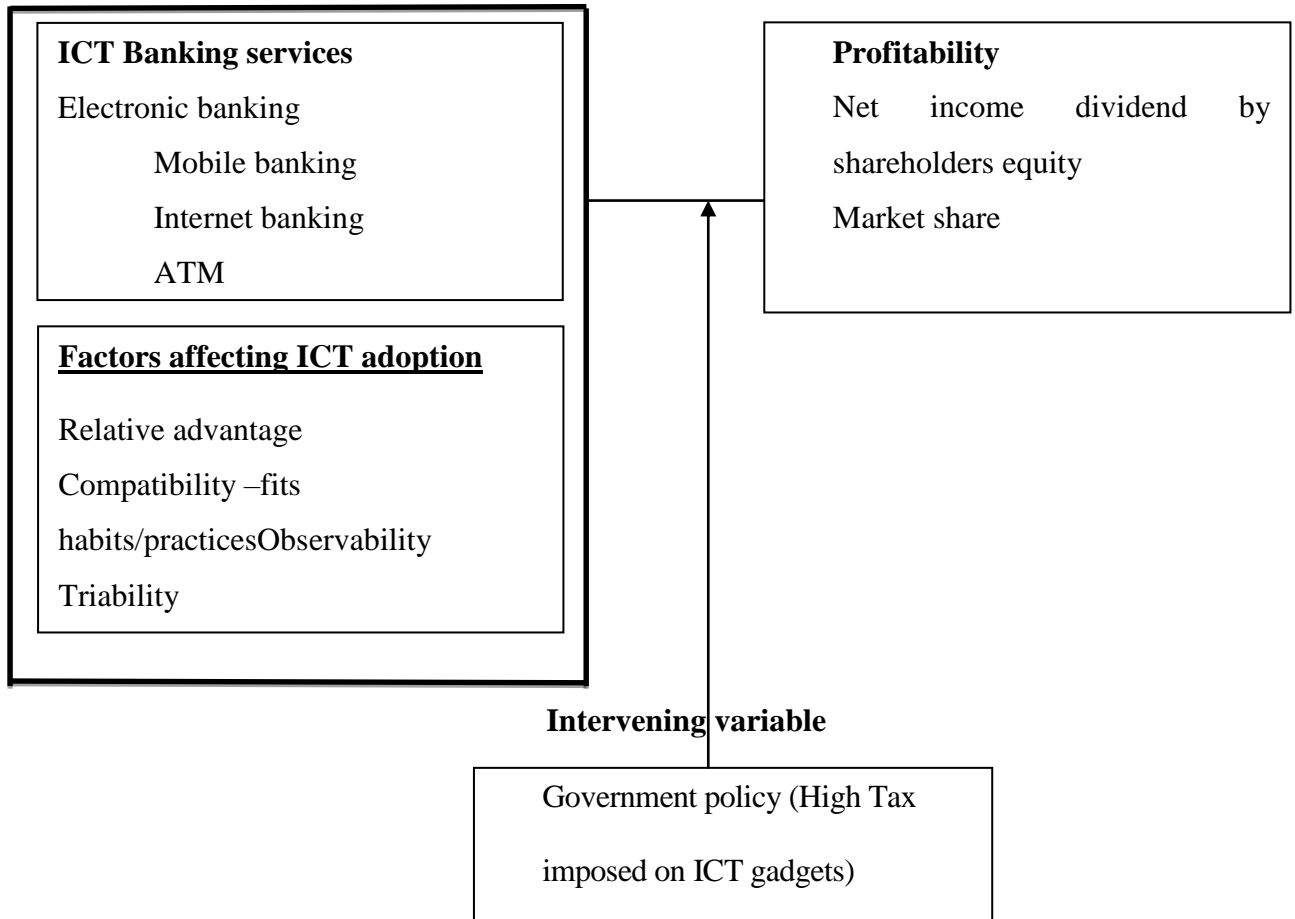
However, effective ICT adoption cannot be achieved without examining the factors affecting its adoption. These include: Relative advantage, compatibility, observability and Triability.

**Independent variable**

**Dependent variable**

**Adoption of ICT banking services**

**Performance of commercial banks**



**Source: Adapted from Rogers (1983) and modified by the researcher, 2020**

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0. Introduction**

This chapter presents literature reviewed from scholars related to the topic of study. The researcher reviewed literature from journal articles, textbooks, newspapers and websites. This section also describes the theory that guided the study and the research gap. Literature was reviewed systematically based on the research objectives of the study.

### **2.1. Theoretical framework**

The adoption of new technologies has been studied through different theoretical frameworks such as innovation Diffusion Theory (1983) and Market Power and Efficiency Structure Theory (1995). Diffusion of Innovation Theory is among the theories used in studying the adoption of innovations and new technologies. This theory was adopted to guide this study.

#### **2.1.1 Innovation Diffusion Theory (IDT)**

Rogers (1983) explained the process of technological diffusion as one which is dictated by uncertainty reduction behaviour amongst potential adopters during the introduction of technological innovations. Even though innovations typically offer their adopters novel ways of tackling day-to-day problems, the uncertainty as to whether the new ways will be superior to existing ones presents a considerable obstacle to the adoption process. Rogers (1983) singled out the following five characteristics of innovations that consistently influence the adoption of new technologies.

First, is Relative advantage that is the degree to which an innovation is perceived to be an enhancement of the current offering. Secondly, Compatibility that refers to the extent to which an innovation is perceived to fit together with potential adopters' habits and practices. Third, Complexity that refers to the degree to which an innovation is perceived being complicated to use. Thus, excessive complexity of an innovation is an important obstacle in its adoption. Fourth, Observability that is the degree to which results of an innovation are observable to others and this has factors such as perceived usefulness, personal innovativeness, prior experience, image and enjoyment with innovation have stronger influence on an individual's adoption of innovation. Fifth, Triability that refers to the degree to which an innovation may be sufficiently tested prior to adoption. Triability is positively correlated with the rate of adoption. The more an innovation is tried, the faster its adoption is.

This is particularly important to the current study that is set out to find the ICT banking services and performance of commercial banks. Innovation diffusion theory is affected by factors like limited technical knowledge among the top officers of the bank in managing and implementing the adoption of ICT banking services and inadequate training among the employees and the customers in shifting to new technologies. However, it consists of major components namely: innovation characteristic, individual user characteristic, adopter distribution over time, diffusion networks, innovations and adopter categories, and the individual adoption process (Taylor & Todd, 1995). These components are helpful in understanding why the organizations would choose to adopt ICT in their operations and the perceived benefit which is performance in the current study.

## **2.2. ICT banking services offered by banks to the clients**

### **2.2.1. Electronic Banking (E-banking)**

One of the major applications of ICT in banking industry is electronic banking or e-banking. E-banking has become increasingly useful for both the customers and banking institutions. It has emerged as a delivery channel that does not require personnel serving their customers physically (Alhinai, 2013). Through e-banking, customers can execute their bank transactions in a faster manner, anytime and anywhere. Correspondingly, with e-banking, processing periods of payments have decreased, flexibility and speed of the overall business transactions have increased (Chandio, 2017). E-banking has grown with the arrival of internet technology. Online banks are now providing e-payment solutions in which the customer is given an online transaction platform to do online shopping, online auction and internet stock (Chen and Dahlman, 2005). Hence, E-banking has become a profitable channel for banks, where they can not only save costs but also make bank dealings more convenient for customers.

Ahmad and Al-Zu'bi (2011) stated that electronic banking comprises four different channels including PC banking, internet banking, managed network and TV-based banking. PC banking calls for applications that can help customers to take advantage of banking services from their homes. As for internet banking, recent decades have seen a shift from wired internet connections to wireless mobile technologies (Osabuohien, 2008). With the advent of wireless mobile technologies, electronic banking is not limited to the computer screens. E-banking can now fit into tiny mobile screens or any other wireless device. Customers can now consult their account balances and transaction histories, view pie-charts of their holdings in a portfolio, initiate payments or send e-mail to their banks (Ahmad & Al-Zu'bi, 2011). As for managed networks and TV-based banking, they are not playing a big role in banking.

### **2.2.2 Internet banking**

Internet banking is most general type of electronic banking that banks are using these days (Martins, 2014). Just like e-banking, internet banking services have revolutionized the banking sector. It should be noticed that though internet banking is a type of electronic banking, both of these are different. To illustrate, electronic banking includes a wide range of banking services like telephone banking, credit and debit cards, Automated Teller Machines (ATM), mobile banking and digital computer banking, etc. However, internet banking is limited to use of banking services through internet, which has created a huge universe for information sharing, collaboration and commerce. The main benefits of internet banking include increase in efficiency, enhancement in bank's reputation, reaching new segments of population and offering better customer service and satisfaction. On the other hand, with internet in place, customers can easily pay their utility bills, recharge their cards, transfer funds to numerous accounts and make payments via their visa cards on commercial websites (Elbeltagi, 2007). Moreover, they can keep a real-time check on their finances. It enables consumers to manage their money and see their incomes and transactions clearly (Galliers & Leidner, 2014). Therefore, internet banking facilitates the accomplishment of banking operations for both banks and customers.

### **2.2.3 Mobile banking**

Over a decade, mobile and wireless technology markets have been growing at a faster rate in the world. Mobile phones have become an important communication tool for every individual. As a result, m-commerce has emerged to take mobile on next level (Hanafizadeh, 2014). M-commerce signifies the use of wireless handheld devices such as mobile phones, tablets and laptops for doing commercial transactions (Luarn & Lin, 2005). This created even more convenience for the customers as they can carry out their transaction with just a swipe or click of a button. As a result, banks have started using this means to deliver their quality service with the help of mobile-related applications (Laforet & Li, 2005).

Electronic banking, internet banking and mobile banking are the applications of ICT that have been designed for facilitating customer services. On the other hand, there are some applications of ICT that assist bank employees and managers for their daily operations. These include electronic human resource management, decision support systems and social media outreach. The following sections explain the use of these systems in banking industry.

### **2.2.4 Decision Support Systems**

Decision support systems are another important application of ICT that help bankers to deliver services to customers. Banks are investing in information systems to remain competitive and provide fast service to their customers; however, such investments yield intangible benefits and the paybacks are realized in long run only (Davis & Karim, 2008). Banks use different types of decision support systems to fulfil tasks of different departments (Elbeltagi, 2007). These include decision models, data bases, data mining and sub systems.

### **2.2.5 Social Media Outreach**

Social media outreach is a relatively new marketing application that is widely used in banking industry. Banks have realized the potential of social media in enhancing public relations and building strong rapport with prospective customers. The use of social media allows marketing at a larger scale and facilitates the interaction between stakeholders (Brix, Lust, & Woolcock, 2015). Conventionally, the banking industry mainly served educated and wealthy middle-aged people. Nonetheless, the use of social media in marketing has brought a paradigm shift in the clientele of the banking industry. Banks have now started to expand their customer base involving more young and vibrant generation. In this way, banks are amassing more profits by marketing through a relatively cheaper medium than electronic and print media (Brix, Lust, & Woolcock, 2015).

### **2.3. Effect of integrating ICT banking services on performance of commercial banks**

Achieving high performance requires good ICT infrastructure supported by good ICT management practice (Mwania & Muganda, 2012).

Bell Technology Solutions enumerate several benefits that can accrue to the organization with the proper implementation of ICT (Smith, 2012). It helps organizations to connect, collaborate and compete more effectively by combining information, knowledge, processes, and technology to provide a foundation for driving efficiencies and fueling innovation. Business performance, productivity and profitability are improved, cost is reduced, quality becomes the focal point of the management and customer satisfaction takes the centre stage (Bell IT Solutions, 2013).

ICT can help integrate the functions of the activity at all levels within and among organizations (Scott, 2011). ICT can be a means of facilitating communication and the exchange of information between various departments and functions in the organization and in this light Technology acts as an enhancer of collaboration and networking tool amongst employees,

customers and partners because it removes the barriers to real-time communication and effective information sharing (Scott, 2011).

ICT helps companies to innovate through fusion of new technologies with society and business thus enabling the creation of new knowledge and discovery (Diem, 2007). ICT is being used by organizations to improve performance, communication, motivate employees, increase competitiveness, improve market dynamics, and repositions the company against its competitors and allowing entry into new markets (Hagen, 2010).

ICT contributes to goals such as: Information access for all, Wellbeing and quality of life for all, Enrichment in the social contact between customers and bank employees, Integration and respect for diversity, Greater autonomy for the individual, Prevention of various kinds of overload and stress, Deepening of true human qualities, Deepening and broadening of democracy, E-cooperation and peace, Sustainability in a broad sense, including the environment, economy, and human side (Bradley, 2010).

Knowledge sharing is virtuous for organizations and Technology facilitates knowledge sharing by providing a link between the levels of the individual knowledge workers, where knowledge resides, and the level of the organization, where knowledge attains its (economic, competitive) value (Hendriks, 2010). ICT also facilitates access to meta-knowledge, using technology that facilitates the access to information bases stored in data that are relevant beyond the individual level (Hendriks, 2010).

Rogers (1995) in his diffusions of innovation theory categorized five stages of adopters namely: innovators, early adopters, early majority, late majority and laggards (Rogers, 1995). Organizations as well as individuals can fall in either category and each depends on the adopter's willingness and ability to adopt an innovation, awareness, interest, evaluation, trial, exposure, and capacity to adopt. Also, the ease of adoption depends on the characteristic of the technology, functionality and ease of adoption. Hence, technology adoption can be said to depend on both the characteristic of the technology in question and the adopting unit (Javier & Frank, 2011).

The revolution in ICT has distorted the normal banking culture and created the avenue for banks to emerge into various markets thereby creating value where customer needs are sorted into various categories for prompt attention (Aliyu & Tasmin, 2012). Through this means, the banks are able to sell other products such as insurance and securities together with the banking products they already sell which are all unique to the particular firm (Delgado & Nieto, 2014).



The basic reason for making use of the internet and other ICT tools as delivery channels is its power to reduce operational expenses by eliminating the cost of running physical branches. This becomes relevant in the Spanish banking system which has too many branches across Europe since the banks using the internet and other ICT tools as delivery increase their income drastically than those using normal distribution channels (DeYoung, 2015 ; Delgado, 2016).

Haq (2010) posits that financial institutions are able to survive by maximizing income through the reduction of operational costs. The unit cost of using ICT tools in banking reduces rapidly than the cost associated with physical branch deliver as income grows. Thus Internet banking has become the only innovation that can substitute physical branches in the service delivery of banks (DeYoung, 2011).

Birch and Young (2017) posit that expectations of consumers are about comfort ability, prompt and quality service delivery and transactional security. The introduction of ICT tools in banking has raised the awareness of customer to the existence of a fast and efficient customer service delivery.

#### **2.4. Challenges affecting the adoption of ICT banking services in Africa**

Information Communication Technologies has proved to be a valuable tool to business, for that matter banking. Notwithstanding, implementing ICT has not been without challenges. The following are some reviewed papers in relation to the challenges banks encounter with the adoption of ICT. Related literature on the challenges affecting the adoption of ICT in banking services were reviewed extensively in this particular section.

Kevin (2013) investigated into the challenges of Information Communication Technology Adoption in the Tanzanian Banking Sector. Descriptive research design was employed as it facilitated the collection of information from various categories of bank managers, that is: Customer relations manager who informed the study on how customers use technology to relate with the bank, Cash manager who informed the study on how cash flows using technology, and the ICT managers who informed the study on technical issues and allowed them to state their perceptions on challenges on ICT adoption in the banking sector.

From the empirical findings, they discovered that the majority of the respondents agreed that ICT challenge adoption affecting the banking industry included: slowing down of ICT systems and equipment, network communication errors; ignorance by majority of the customers about

ICT usage especially online services and they do not own ICT gadgets which can enable them access online services.

Sonja (2010) investigated the effects of computerization on savings and credit cooperatives in Uganda. He found out that the majority of the respondents agreed that information communication technology has really promoted microfinance sustainability, reaching the poor people and Management information systems. However, one of the challenging aspects of the usage of ICT revealed as lack of human resource capacity in the banks in Uganda to manage the administration of the computing services.

Ofori-Dwumfuo and Botchway-Anang (2012) assessed challenges encountered in the computerization of ARB Apex Banks by connecting rural banks as well as community banks in Ghana. They used both qualitative and quantitative approaches in gathering the relevant information for the study. In order to address the challenges faced by the rural banks in Ghana based on the adoption of ICT, a survey was conducted on some of the staff of the banks involved directly in the implementation of the ICT process. A cross-sectional comparative analysis approach was adopted through sampling a cross-section of workers in the selected rural banks. The staff and management of both ARB Apex Bank and the rural banks constituted the population for the study where 15 banks were selected. However, purposive and systematic sampling techniques were used to sample 50 respondents who participated fully in the study. Based on the results, they realized from the respondents that 64% of the total respondents opined that they had been fully involved in the implementation of the ICT project. From their findings, it was found out that lack of top management's support in adopting ICT usage was among the challenges which affected implementation of ICT usage in banking services.

Adewale and Afolabi (2010) studied the effects of ICT on the growth of Nigerian banking industry. Information communication technology has become the engine block of every banking institution worldwide and Nigerian banking institutions are not exempted. They adopted the historical and survey research methods. Data were collected from both primary and secondary sources, and chi-square and regression analysis were used in the aspect of formulated Hypothesis testing. They discovered that the banking system was not in line with global trends and that the application and usage of information technology in the banking system was necessary for efficient service delivery. Their findings revealed failure of the bank customers to own ICT gadgets which could enable them access online services as the challenge that affected the adoption of ICT banking services.

Social influence defined as a change in an individual's feelings, attitudes, thoughts, or behaviours that result from interaction with another person or a group. Social influence is distinct from conformity, authority, and power (Lasserre, 2015). Conformity occurred when an individual expressed a particular opinion or behaviour to meet the expectations of a given other or to fit into a certain situation though he did not necessarily hold that view or believe that the action was appropriate (Lasserre, 2015). Authority is the power that is found to be legitimate rather than coercive by those subjected to it (Lasserre, 2015). Power is defined as the ability to coerce or force a particular way by controlling her outcomes (Lasserre, 2015). Therefore the bank officers lack the powers to force the customers own the ICT gadgets so as to make use and adoption of ICT in banking services.

On regulation and ICT banking services Adoption, Uganda's Vision 2040 is clear on goals of ensuring that financial inclusion penetrates throughout the country (Mwega, 2014). It stipulates that Uganda should enhance financial inclusion by decreasing the share of the population without access to finance by around 20% (Mwega, 2014). This means that there is need to introduce legal and institutional reforms that would build trust, enhance transparency in transactions, and ensure enforcement of justice for this vision to be achieved (Duncombe and Boateng, 2017; Mwega, 2014). Issues of regulation and policy are suggested as significant constraints on ICT banking services adoption (Duncombe & Boateng, 2017).

Low perception of relative advantages compared to a personal contact in the branch makes it difficult for people to adopt ICT banking services and slows down ICT systems (Cruz, Barretto, 2010). Doline and Solomon (2014) identified mobile banking compared to conventional banking to include but not limited to reduced cost, convenience, wider customer reach, labour free, higher security level, accessibility, and availability. These advantages seem to agree with Malhorta (2011) who says that a significant advantage of ICT banking services is its accessibility to a large segment of the world population which would have wireless connectivity but no Internet access.

## **2.5 Financial performance commercial banks**

The determinants of bank performances can be classified into bank-specific (internal) and macroeconomic (external) factors (Al-Tamimi, 2010). These are stochastic variables that determine the output. Internal factors are individual bank characteristics which affect the banks' performance. These factors are basically influenced by internal decisions of management and the board. The external factors are sector-wide or country-wide factors which are beyond the control of the company and affect the profitability of banks. The overall financial performance

of banks in Uganda in the last two decade has been improving. However, this does not mean that all banks are profitable, there are banks declaring losses (Oloo, 2010).

Studies have shown that bank-specific and macroeconomic factors affect the performance of commercial banks (Flamini et al., 2009). In this regard, the study of Olweny and Shipho (2011) in Uganda focused on sector-specific factors that affect the performance of commercial banks. Yet, the effect of macroeconomic variables was not included. Moreover, to the researcher's knowledge, the important element, the moderating role of ICT on the performance of commercial banks in Uganda was not studied. Thus, this study was conducted with the intention of filling this gap.

### **2.5.1 Bank-specific Factors/Internal Factors**

As explained above, the internal factors are bank-specific variables which influence the profitability of a specific bank. These factors are within the scope of the bank to manipulate them and they differ from bank to bank. These include capital size, size of deposit liabilities, size and composition of credit portfolio, interest rate policy, labour productivity, and state of information technology, risk level, management quality, bank size, ownership and the like. CAMEL framework often used by scholars to proxy the bank-specific factors (Dang, 2011). CAMEL stands for Capital Adequacy, Asset Quality, Management Efficiency, Earnings Ability and Liquidity. Each of these indicators are further discussed below.

### **2.5.2 Capital Adequacy**

Capital is one of the bank-specific factors that influence the level of bank profitability. Capital is the amount of own fund available to support the bank's business and act as a buffer in case of adverse situation (Athanasoglou et al., 2005). Bank capital creates liquidity for the bank due to the fact that deposits are most fragile and prone to bank runs. Moreover, greater bank capital reduces the chance of distress (Diamond, 2000). However, it is not without drawbacks that it induces weak demand for liability, the cheapest sources of fund Capital adequacy is the level of capital required by the banks to enable them withstand the risks such as credit, market and operational risks they are exposed to in order to absorb the potential losses and protect the bank's debtors.

According to Dang (2011), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR). Capital adequacy ratio shows the internal strength of the bank to withstand losses during crisis. Capital adequacy ratio is directly proportional to the resilience of the bank to crisis situations. It also has a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures or areas (Sangmi & Nazir, 2010).

### **2.5.3 Asset Quality**

The bank's asset is another bank-specific variable that affects the profitability of a bank. The bank asset includes among others current asset, credit portfolio, fixed asset, and other investments. Often a growing asset (size) is related to the age of the bank (Athanasoglou et al., 2005). More often than not, the loan of a bank is the major asset that generates the major share of the banks income. Loan is the major asset of commercial banks from which they generate income. The quality of loan portfolio determines the profitability of banks. The loan portfolio

quality has a direct bearing on bank profitability. The highest risk facing a bank is the losses derived from delinquent loans (Dang, 2011). Thus, non-performing loan ratios are the best proxies for asset quality. Different types of financial ratios are used to study the performances of banks by different scholars. It is the major concern of all commercial banks to keep the amount of non-performing loans to low level. This is so because high non-performing loan affects the profitability of the bank. Thus, low non-performing loans to total loans shows the good health of the portfolio a bank. The lower the ratio, the better the bank performance (Sangmi & Nazir, 2010).

### **2.5.3 Management Efficiency**

Management Efficiency is one of the key internal factors that determine the bank's profitability. It is represented by different financial ratios like total asset growth, loan growth rate and earnings growth rate. Yet, it is one of the complexes subject to capture with financial ratios. Moreover, operational efficiency in managing the operating expenses is another dimension for management quality. The performance of management is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, control systems, quality of staff, and others. Yet, some financial ratios of the financial statements act as a proxy for management efficiency.

The capability of the management to deploy its resources efficiently, income maximization, reducing operating costs can be measured by financial ratios. One of these ratios used to measure management quality is operating profit to income ratio (Sangmi & Nazir, 2010). The higher the operating profits to total income (revenue) the more the efficient management is in terms of operational efficiency and income generation. The other important ratio is that proxy management quality is expense to asset ratio. The ratio of operating expenses to total asset is expected to be negatively associated with profitability. Management quality in this regard, determines the level of operating expenses and in turn affects profitability (Athanasoglou et al., 2005).

### **2.5.4 Liquidity Management**

Liquidity is another factor that determines the level of bank performance. Liquidity refers to the ability of the bank to fulfil its obligations, mainly of depositors. According to Dang (2011) adequate level of liquidity is positively related with bank profitability. The most common financial ratios that reflect the liquidity position of a bank according to the above author are customer deposit to total asset and total loan to customer deposits. Other scholars use different financial ratio to measure liquidity. For instance Ilhomovich (2009) used cash to deposit ratio to

measure the liquidity level of banks in Malaysia. However, the study conducted in China and Malaysia found that liquidity level of banks has no relationship with the performances of banks (Said & Tumin, 2011).

### **2.5.2 External Factors/ Macroeconomic Factors**

The macroeconomic policy stability, Gross Domestic Product, Inflation, Interest Rate and Political instability are also other macroeconomic variables that affect the performances of banks. For instance, the trend of GDP affects the demand for banks asset. During the declining GDP growth the demand for credit falls which in turn negatively affect the profitability of banks. On the contrary, in a growing economy as expressed by positive GDP growth, the demand for credit is high due to the nature of business cycle. During boom the demand for credit is high compared to recession (Athanasoglou et al., 2005). The same authors state in relation to the Greek situation that the relationship between inflation level and banks' profitability remains debatable. The direction of the relationship is not clear (Vong and Chan, 2009).

### **2.5. Research gap**

Researchers such as Kevin (2013) investigated the challenges of Information Communication Technology adoption in the Tanzanian Banking Sector; Sonja (2010) investigated the effects of computerization on savings and credit cooperatives in Uganda; Ofori-Dwumfuo and Botchway-Anang (2012) assessed challenges encountered in the computerization of ARB Apex Banks by connecting rural banks as well as community banks in Ghana and Adewale and Afolabi (2010) studied the effects of ICT on the growth of Nigerian banking industry. Previous studies were done under different variables and they were studied in different countries and none of the study targeted ICT banking services and performance of commercial banks in Kabale municipality. This study shed light on ICT banking services and performance of commercial banks in Kabale municipality, a case of Equity and Stanbic banks.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0. Introduction**

This chapter presents the research methodology comprising research design, study population, sample size, data collection methods, instruments, ethical considerations and limitations of the study.

#### **3.1. Research Design**

A mixed method approach (quantitative and qualitative approaches) was adopted as most suited to address the research problem in a more comprehensive manner. Specifically, a cross-sectional research design was employed. A cross-sectional research design collects data from many different individuals at a single point in time (Wade & Tavris, 2008). This research design enabled the researcher to collect both quantitative and qualitative data at a single point in time at both Equity and Stanbic banks in Kabale District.

#### **3.2. Target Population**

Target population is the specific population about which information is desired in a study (Kothari, 2008). The target population included employees and customers of Equity and Stanbic banks in Kabale municipality and was limited to 283 respondents.

#### **3.3. Sample Size**

Kothari (2004) describes a sample as a small number selected by a researcher from a large group. In determining the sample size, the researcher adopted Yamane's formula (1967). The sample size was calculated based on reports from Stanbic and Equity banks showing the enrolment of clients and staff.

Yamane's sample size formula was used:

Where N- is population size,

n- is the sample size

e- sampling error

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

$$n = \frac{970}{1 + 970(0.05)^2}$$

$$n = 283$$



**Table 1: Sample Size Distribution**

Population Category	Study Population		Total	Sample size	Sampling techniques
	Equity Bank	Stanbic Bank			
Top level management	1	1	02	02	Purposive sampling
Middle level management	1	1	02	02	Purposive sampling
Lower level management(tellers)	3	3	6	06	Purposive sampling
Customers	447	523	<b>970</b>	283	Simple random sampling, cluster, stratified
<b>Total</b>	<b>447</b>	<b>523</b>	<b>970</b>	<b>283</b>	

*Sources: Bank reports (Equity and Stanbic banks, 2018)*

### 3.4. Sampling Procedures

Sampling is a process or technique of choosing a sub-group from a population to participate in the study (Ogula, 2005). The study used both random and non-random sampling

#### 3.4.1 Random sampling techniques

The random techniques that were used in this study include: cluster sampling that was used to categorize respondents from the different banks. Stratified sampling was used to classify the respondents by specific characteristics such as age, gender and bank. Simple random sampling was used in selecting the survey respondents (clients) who were available at the bank during data collection. Only those who consented were included in the study.

#### 3.4.2 Non-random sampling techniques

Purposive sampling was employed in the study to recruit participants with valuable information related to the study (Kotler, 2013). Purposive sampling was used to select bank staff at top,

middle and lower levels of management because of their experience in working with bank and customers.

Two (2) top-level managers were selected, two (2) middle-level managers was selected because of their experience in working with the banks and six (6) lower-level managers. They were selected because these dealt mostly with the issues of the bank and the customers therefore they had enough information for the study. Two hundred eighty three (283) clients were also randomly selected to participate in the interviews to collect information on the challenges affecting adoption of ICT banking services.

### **3.5. Data Collection Methods**

Bryman (2006) defines data collection methods as the act of collecting data for purposes of making decisions about the study problem. The researcher employed both quantitative and qualitative data collection methods including; questionnaires, in-depth interviews, document review and observation method.

#### **3.5.1 Interview**

Smith (2012) explains an interview as a face-to-face conversation between the interviewer and respondents that is conducted for the purpose of obtaining an in-depth understanding of each respondent's perspective on the phenomenon being investigated. The researcher conducted in-depth interviews to collect data on ICT banking services offered, effect of integrating ICT banking services on performance and challenges affecting adoption of ICT banking services from the bank staff

#### **3.5.2. Questionnaire**

Kothari (2004) states that questionnaires are a formatted set of questions drawn up to meet the objectives of the study. They are predetermined and arranged questions given to the subject respondent. The researcher used a closed ended self-administered questionnaire to collect data on demographic characteristics of respondents and this method was suitable for collecting data from a large population in a short time.

#### **3.5.3 Observation method**

Observation is a method of data collection in which researchers use their eyes to observe specific concerns within a specific research area (Deferrari, 2011). The researcher used observation method to identify the ICT banking services offered by Equity and Stanbic banks and effects of integrating ICT banking services on performance of commercial banks. It allowed

the researcher to see what people actually did rather than what they said and did. The researcher also used observation to identify challenges associated with adoption of ICT banking services in the banks.

#### **3.5.4 Document Review**

Document review is a qualitative research method in which documents are interpreted by the researcher to give voice and meaning around an assessment topic (Bowen, 2009). The researcher analyzed sources of data like magazines, brochures, policy documents on ICT adoption and banking services in commercial banks in order to get detailed information about the study.

### **3.6. Data Collection Instruments**

Data collection instruments refer to the tools used to collect data questionnaire or computer-assisted interviewing system (Canals, 2017).

#### **3.6.1 Survey**

The researcher used structured questionnaires to gather data from the respondents. Structured questionnaire is a document that consists of a set of standardized questions with a fixed scheme, which specifies the exact wording and order of the questions, for gathering information from respondents (Saris & Gallhofer, 2014). The structured questionnaires consisted of closed ended questions which were administered to clients in the two banks. The questionnaires as tools were used due to the factor that they collected information from large sample.

#### **3.6.2 Interview guide**

An interview guide is simply a list of the high-level topics and questions to be answered in an interview (Schensul, & LeCompte, 2013). The interview guide was used by the researcher because this helped to identify ICT banking services offered to clients at Equity and Stanbic banks, to determine the effect of integrating ICT banking services on performance of the commercial banks and to analyse the challenges affecting the adoption of ICT banking services at Equity and Stanbic banks.

#### **3.6.3 Observation checklist**

An observation guide is an important tool that helps to maintain the observer's focus while also giving the observer scope to reflect on the particular context associated with each site (Davies & Spencer, 2010). It reminds the observer of the key points of observation. In this study

the observation checklist was used to observe ICT banking services provided and the challenges affecting adoption of the services in the respective banks.

### **3.7. Data quality control**

#### **3.7.1 Validity**

Validity is the degree by which the sample of test items represents the content the test is designed to measure (Kombo & Tromp, 2006). Validity is an indication of how sound a research is. The researcher gave the supervisor the research instruments to rate the items that were valid to collect data using content validity. The research instruments were pre-tested to ensure the right skips, correct spelling errors and ensure that the questions asked were clear. This minimized errors in the final data collection instruments enhancing validity of results. Also standard measurements were used in analysing data at univariate, bivariate and multivariate levels.

#### **3.7.2 Reliability**

Reliability is the degree to which an assessment tool produces stable and consistent results Riordan (2012).The researcher pre-tested the research instruments. The pre-test was done from ten customers of other commercial banks in Kabale municipality which enabled the researcher to have reliable tools for the study. For the case of consistency of research results from the study instruments, the researcher used Cronbach coefficient alpha method in order to determine reliability of these instruments. Scores were correlated and a correlation coefficient of 0.8568 was got which was greater than 0.7 and was considered high enough to judge the instruments as reliable for the study.

### **3.8. Research Procedures**

The researcher was given an introductory letter from the Head of Postgraduate Studies at Kabale University introducing me to managers and clients at Equity and Stanbic banks. The researcher made appointments with the bank staff on when to start data collection. On the day of data collection the researcher sought for informed consent from respondents to participate in the study. Only those who consented by signing the consent forms participated in the study. The researcher promised them confidentiality and proceeded with data collection.

### **3.9. Data analysis**

Data analysis involves sorting, inspecting, cleaning and coding of the data ready for presentation (Babbie, 2011). Both quantitative and qualitative data was analysed in the study. Analysis of quantitative and qualitative data was done independently.

#### **3.9.1 Quantitative data analysis**

Quantitative data was analysed at two levels, namely; using descriptive statistics and inferential statistics. Descriptive statistics was used to analyse respondents' demographics such as age, gender, number of years in a specific bank. This data was analysed using percentages and frequency distributions. Inferential statistics such as correlations and regressions were used to analyse relationship between ICT banking services and performance of Equity and Stanbic commercial banks.

#### **3.9.2 Qualitative data analysis**

Qualitative data was analysed using content analysis and thematic analysis methods. All information from interviewees was collected through recording, and transcribed word for word on a word document. The responses were coded and analysis made through descriptive and pattern coding. Eventually, the responses were organized into main themes and sub-themes.

### **3.10. Ethical Considerations**

The major aim of observing ethics during the research study is to ensure that the welfare and rights of the respondents are observed (Blanche & Durrheim, 2011). The researcher sought consent from the respondents of the study before collecting data. Respondents signed consent forms to participate in the study. The researcher ensured the confidentiality of respondents by not capturing the names of the respondents and using the data collected for academic purposes only.

### **3.11. Limitations of the study**

Time available for research was not enough due to COVID -19 lockdown which made it hard to reach respondents. The researcher waited for the lifting of lockdown to conduct the study.

There was rigidity of respondents who were not willing to answer the questions asked. This was due to respondents' attitudes towards the topic. The researcher explained to the respondents the purpose of the study and that data was for academic purposes only in order to get relevant information.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND DISCUSSION OF FINDINGS

#### 4.0. Introduction

This chapter presents a detailed description, interpretation and discussion of results based on the objectives of the study namely: to identify ICT banking services offered to clients at Equity and Stanbic banks; determine the effect of integrating ICT banking services on performance of the commercial banks; and to analyse the challenges affecting adoption of ICT banking services at the selected banks.

#### 4.1. Response rate

The responses from the questionnaires were used to analyse the data and write the report for this study. Mugenda and Mugenda (2003) suggest that a response rate of 50% and above is adequate for analysis and reporting. The researcher had a total of 283 survey respondents and managed to collect questionnaires from 209 customers of the bank. Therefore, this study had a response rate 74%. This was considered acceptable standard for collecting data.

**Table 2: Response rate**

<b>Questionnaire administered</b>		<b>Response rate(%)</b>
Intended questionnaires	<b>283</b>	100
Collected questionnaires	<b>209</b>	<b>74</b>

**Source: Researcher, 2020**

#### 4.1.1 Demographic characteristics of respondents

This section presents the characteristics of respondents who participated in this study including their age, gender, level of education and time or respondents working with bank. This is presented in Table 2 above.

#### Survey respondents

The researcher considered the respondents' gender, age, educational level and the time spent by the employees working with the banks. This demographic data was very essential for the researcher and the study in order to describe the most relevant respondents that were selected for the study as presented in Table 3 below.

**Table 3: Demographics of Survey Respondents**

<b>Gender</b>	<b>Frequency( f)</b>	<b>Percentage (%)</b>
Female	112	53.6
Male	97	46.4
<b>Age</b>		
18-23	8	3.8
24-29	40	19.1
30-35	54	25.8
36-41	107	51.2
<b>Education</b>		
O-level	17	8.1
A-level	25	12
Diploma	53	25.4
Degree	114	54.5
<b>Time</b>		
1- 5	102	48.8
5-10	98	46.9
10- 15	5	2.4
15- 20	4	1.9

**Source: Researcher, 2020**

The study findings on the gender of respondents indicated that majority of respondents 53.6% (112) were females compared to their male counterparts who composed of 46.4% (97). The researcher got information from both sexes.

The study results on the age of respondents indicated that 51.2% (107) of respondents were aged between 36 and 41 years, 25.8% (54) of the respondents were between 30 and 35years, 19.1% (40) of the respondents were between 24 and 29 years, and 3.8% (8) the lower number of respondents were between 18 and 23 years of age. The researcher considered the age of respondents with the aim of documenting dependable information based on respondents' age in terms of varying years of life time experience and understanding with the study problem being investigated.

The study findings on the level of education indicated that 54.5% (114), the largest number of respondents had a degree, 25.4% (53) a diploma, 12% (25) had A-level and 8.1% (17) the least

number of respondents had O-level. The researcher considered the levels of education attained by respondents in order to determine the appropriate data with regard to respondents' levels of literacy and understanding. In as far as the title of study was concerned, the results imply that the respondents were expected to understand the questionnaire and give valid response since they had better understanding as guided by the their levels of education which in this case the majority had degree level of education as the highest level of education.

The study findings on time the respondents have been working with the banks, it was found out that 48.8% (48.8) of the respondents had a working experience of 1-5 years, 46.9%( 46.9) of the respondents had an experience of 5-10 years, 2.4% (5) of the respondents had 10-15 years and 1.9% (4) of the respondents had an experience of 15-20 years. This implied that most of the respondents had been in the bank for a considerable period of time which implies they were in a position to give credible information relating to this study.

**Table 4: Key Informant (bank staff) Demographics**

<b>Key informants</b>	<b>Response rate</b>	<b>Percentages (%)</b>
Top-level management	02	20
Middle-level management	02	20
Lower-level management(tellers)	06	60
Total	10	100

**Source: Researcher, 2020**

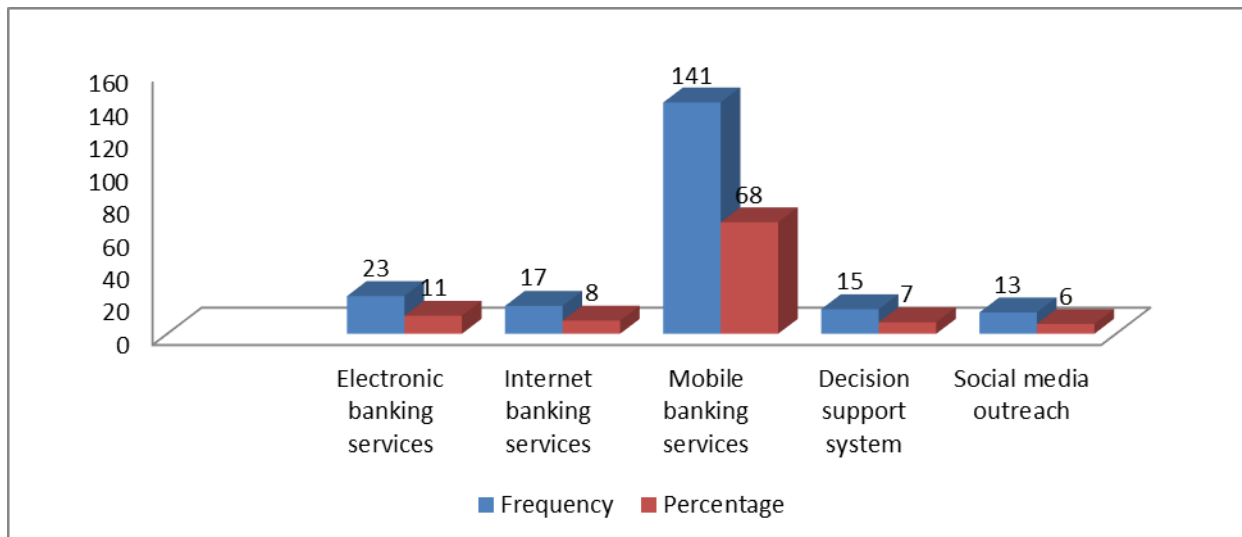
The researcher got information from the key informant that is top-level management, middle-level management and lower-level management (tellers). The information was considered for the study.

#### **4.2. ICT banking services offered by Equity and Stanbic banks to the clients**

The researcher recorded the ICT banking services offered by Equity and Stanbic banks to the clients and the results were presented in Figure 1 below. The researcher found it wise to collect data on ICT banking services offered by Equity and Stanbic banks to the clients so as to acquire relevant information that was needed for the study.

**Figure 1: ICT banking services offered by Equity and Stanbic banks to the clients**





**Source: Researcher, 2020**

Regarding the study findings on the ICT banking services offered by Equity and Stanbic banks to the clients, the responses for the study were presented in Figure 1 above were that most of the respondents agreed that ICT banking services offered to clients were Mobile banking services with 68% (141) electronic banking services with 11% (23), Internet banking services with 8% (17), decision support system with 7% (15) and Social media outreach with 6% (13). The researcher considered ICT banking services offered by Equity and Stanbic banks to the clients with the aim of getting information from the respondents on their convenient services they used to access banking services in the area.

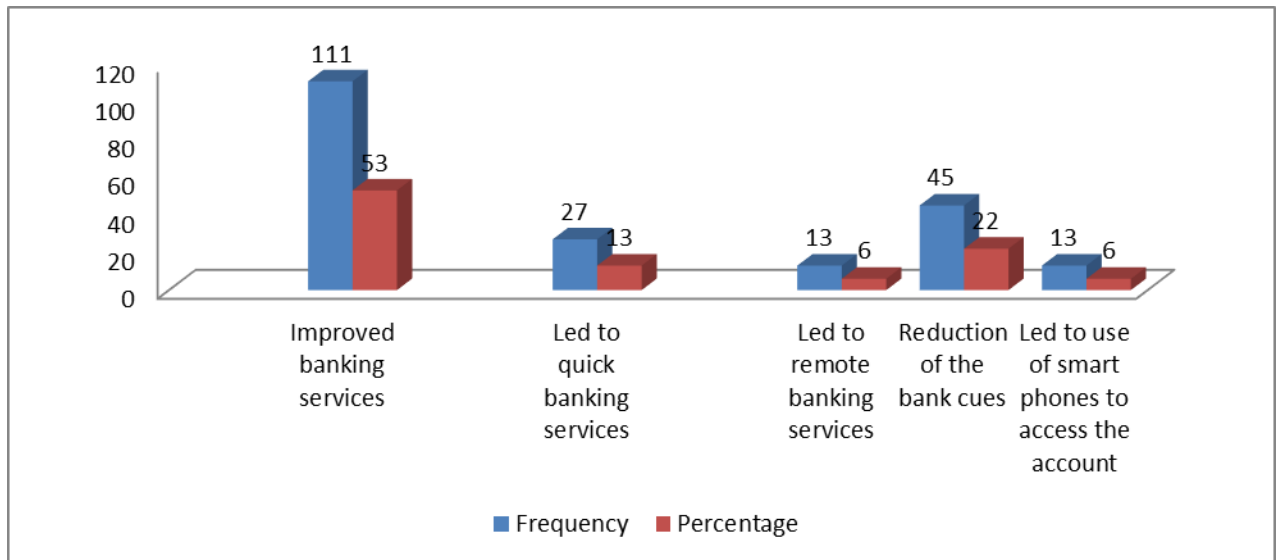
From the interviews the researcher held with the respondents (key informants) top, middle and operational managers of Equity and Stanbic banks on ICT banking services offered, it was revealed that various banking services were offered by the banks which included: Automated teller machine, electronic fund transfer, mobile banking, Point of Sale (POS) terminals, debit and credit cards and online banking.

However, bank managers from both Equity and Stanbic bank indicated that, “Although these services were offered by the selected banks *the most commonly used ICT services by the clients of the selected banks were Automated Teller Machines and mobile banking.*” (Stanbic Manager A, 2020). They emphasized that this was because these services were convenient and user friendly to many users compared to other forms of ICT banking services.

### 4.3. Effect of integrating ICT banking services on performance of commercial banks

The researcher further considered the respondents’ opinions on effect of integrating ICT banking services on performance of commercial banks and the results presented in Figure 2 below.

**Figure 2: Effect of integrating ICT banking services on performance of commercial banks**



**Source: Researcher, 2020**

The study findings on the effect of integrating ICT banking services on performance of commercial banks, such as ATM, Mobile banking, Internet banking, have improved banking services, the responses agreed that ICT banking services such as ATM, Mobile banking, Internet banking, improved banking services with 53%(111) ,ICT banking services has improved the quality of banking services in Reduction of the bank queues 22%(45). The respondents agreed that ICT banking services had improved the quality of Quick banking services 13%(27); the respondents agreed that ICT Banking services had improved the quality of Remote banking services 6% (13), and ICT Banking services had improved the quality of banking services by Use of smart phones to access the account 6%(13).The research considered the effect of integrating ICT banking services on performance of commercial banks with the aim of understanding how ICT services are of importance on the performance of commercial banks.

From the interviews the researcher held with the respondents(key informants) top, middle and operational mangers of Equity and Stanbic banks regarding the effect of integrating ICT banking services on performance of commercial banks, the respondents revealed that ICT

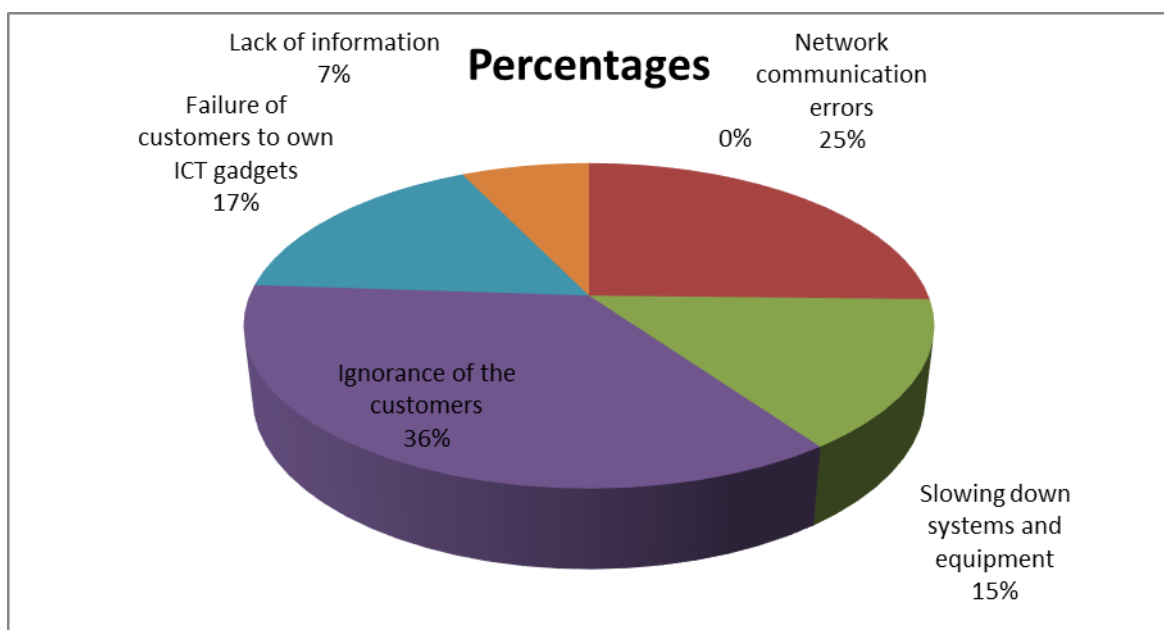
banking services had enhanced better service quality leading to banks' performance, led to improved connectivity amongst banks leading to better service delivery to customers; led to constant and consistent service availability; led to time saving due to fast service delivery.

However, the top and middle level managers of Equity and Stanbic banks stated that: critical banking systems had reduced manual tasks in the bank, hence timely service delivery; led to the elimination of errors and data redundancies; and led to reduction in turnaround and processing time, *mostly promoted electronic records keeping, increased on sales and improved on reduction of line in the banks, attraction of more customers (Equity, Manager B,2020)*. They emphasized that this had led to easy of the workload by the bank staff, leading to improved banks' performance.

#### 4.4. Challenges affecting adoption of ICT banking services at Equity and Stanbic banks

The researcher also asked the respondents on challenges affecting the adoption of ICT banking services at Equity and Stanbic banks in order to get the respondents' views and the results were recorded and presented in Figure 3 below.

**Figure 3: Challenges affecting adoption of ICT banking services at Equity and Stanbic banks**



(Source: Researcher, 2020).

The study findings from survey respondents on challenges affecting the adoption of ICT banking services at Equity and Stanbic banks included: ignorance of ICT banking services identified by majority of the customers at 36%(75); this was followed by network

communication errors at 25% (53); limited customers owned ICT gadgets for accessing online services at 35(17%); the least number of clients 7%(15) indicated that lack of information on available ICT banking services was another challenge affecting adoption of ICT banking services by clients in the selected banks.

From the interviews that were held with the key informant respondents including top, middle and operational managers of Equity and Stanbic banks on challenges affecting adoption of ICT banking services, we recorded the following:

The top-level managers revealed that there was a challenge in integration of data by banks staff which required experts and was costly to the banks. They also identified poor networks since some of the bank clients were from remote areas that lacked ICT infrastructures to enable them access ICT banking services.

The middle-level managers mentioned that there was inadequate funds to facilitate field trips which would help to sensitize customers on available ICT banking services. One of the bank staff indicated that there were security risks associated with ICT banking services. The female respondent said:

*“ There are security risks since there was some interferences of the hackers who would sometimes tamper and try to interrupt with the bank system therefore there was a challenge of maintain the bank security for the safety of the bank” (Female middle level manager, Stanbic Bank, 2020).*

The lower-level managers revealed that there was illiteracy of the banks’ customers on ICT usage especially online services and the pace of change from use of manual services to use of ICT services was slow since some of the ICT gargets required space like Automated Teller Machines to be used by the clients of the banks and exploring of right and related content was a challenge to the banks .There was limited training by banks of their staff so that they are able to train their clients on how to access ICT banking services.

#### 4.5. Correlations between ICT banking services and performance

**Table 5: Correlations between ICT banking services and performance**

Correlations		ICT Banking services	Performance
ICT Banking services	Pearson Correlation	1	.038**
	Sig. (2-tailed)		.582
	N	209	209
Performance	Pearson Correlation	.038**	1

	Sig. (2-tailed)	.582	
	N	209	209

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

Pearson correlation of ICT Banking services and performance results revealed the significance positive responses relation between ICT Banking services and performance that is 0.038\*\* significant at 0.01 level of a two tailed test with 209 degrees of freedom.

This implies that there is a moderate positive significant relationship between ICT Banking services and performance.

#### 4.6. Linear regression model

**Table 6: Linear regression model**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.122(a)	.015	-.009	.90874

a - Predictors: (Constant), Social media outreach, Mobile banking services, Internet banking services, Electronic banking services, Decision support system

**Table 7: Analysis of variance ANOVA**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.513	5	.503	.609	.693(a)
	Residual	167.640	203	.826		
	Total	170.153	208			

a - Predictors: (Constant), Social media outreach, Mobile banking services, Internet banking services, Electronic banking services, Decision support system

b - Dependent Variable: Performance

**Table 8: Coefficients showing ICT banking services**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.280	.706		8.897	.000
	Electronic banking services	.046	.157	.021	.294	.769
	Internet banking services	.162	.161	.071	1.007	.315
	Mobile banking services	-.325	.245	-.093	-1.329	.185

	Decision support system	.087	.286	.022	.304	.762
	Social media outreach	.075	.132	.040	.569	.570

a Dependent Variable: Performance

In general, the results of the regression analysis showed that the variables are statistically significant. The summary table on regression analysis indicated that the R-square is 0.015 with approximately 1.5 per cent. This implies that the five variables which include Electronic banking services, Internet banking services, Mobile banking services, Decision support system and Social media outreach is demanding can explain 1.5 per cent of performance of the commercial banks.

Further, the results showed that the coefficient of the variable performance was not statistically significant, with (P=0.46, Beta=0.157 and t-value=0.021) related to the performance of the commercial banks. This indicated that commercial banks with low usage of ICT banking services had high possibility of not performing well. Furthermore, the coefficient of the mobile banking services being weak shows statistically significant with (P=-0.325, Beta=-0.093 and t-value=-1.329) related to performance of commercial banks. This indicated that internet banking was found to have no significant relationship with performance of commercial banks.

#### **4.7. Discussion of findings**

##### **4.7.1. ICT banking services offered by Equity and Stanbic banks to the clients**

The ICT banking services offered to clients in the banks included: Mobile banking services 68%(141), Electronic banking services 11% (23), Internet banking services 8% (17), Decision support system 7%(15) and Social media outreach 6%(13). This is in line with studies (Chandio, 2017; Alhinai, 2013) that indicated that these are some of the ICT banking services provided by banks in Africa and in other parts of the world.

The findings also agreed with Davis and Karim (2008) who stated that decision support systems are another important application of ICT that help bankers to deliver services to customers. Banks are investing in information systems to remain competitive and provide fast service to their customers.

##### **4.7.2 Effect of integrating ICT banking services on performance of commercial banks**

The findings on the effect of integrating ICT banking service on performance of commercial banks revealed that the majority of respondents 53%(111) indicated that ATM, Mobile banking, Internet banking improved banking services in Equity and Stanbic banks.

This in line with Bell IT Solutions (2013) who stated that ICT helps organizations to connect, collaborate and compete more effectively by combining information, knowledge, processes, and technology to provide a foundation for driving efficiencies and fueling innovation. Business performance, productivity and profitability are improved, cost is reduced, quality becomes the focal point of the management and customer satisfaction takes the centre stage.

The respondents agreed that ICT banking services have improved the quality of Quick banking services as stated by Bradley (2010) who said that ICT contributes to goals such as: Information access for all, Wellbeing and quality of life for all, Enrichment in the social contact between customers and bank employees, Integration and respect for diversity, Greater autonomy for the individual, Prevention of various kinds of overload and stress.

The findings also revealed that ICT Banking services have improved the quality of remote banking services as supported by Hagen ( 2010) who stated that ICT is being used by organizations to improve performance, communication, motivate employees, increase competitiveness, improve market dynamics, and reposition the company against its competitors and allowing entry into new markets.

#### **4.7.2 Challenges affecting adoption of ICT banking services at Equity and Stanbic banks**

The findings on Challenges affecting adoption of ICT banking services at Equity and Stanbic banks from the survey respondents revealed that there were many challenges faced by the banks including; ignorance of ICT banking services 36%(75); network communication errors at 25%(53); limited customers owned ICT gadgets for accessing online services at 35(17%); and lack of information on available ICT banking services at 7%(15).

The finding is in line with Adewale and Afolabi (2010) who studied the effects of ICT on the growth of Nigerian banking industry and they discovered that the banking system is not in line with global trends and that the application and usage of information technology in the banking system which is necessary for efficient service delivery and their findings revealed failure of the bank customers to own ICT gadgets which can enable them access online services as the challenge that affected the adoption of ICT banking services.

Findings from key informants revealed that integration of data by banks staff was a challenge because it required experts and was costly to the banks. They also identified poor networks given that some of the banks clients were from remote areas that lacked ICT infrastructures to enable them access ICT banking services. The middle level managers mentioned that there were inadequate funds to facilitate field trips which would help to sensitize customers on available ICT banking services and there were security risks associated with ICT banking services. This finding is in line with Kevin's (2013) study that identified the same challenges to affect ICT banking services in Africa and developed countries.

The lower-level managers revealed that there is illiteracy of the banks customers on ICT usage of, especially, online services and the pace of change from use of manual services to use of ICT services was still slow in the banks. This finding is supported by Kevin (2013) and Cruz, Barretto (2010) who stated that there is ignorance by majority of the customers about ICT usage especially online services and they do not own ICT gadgets which can enable them access online services and the respondents.

Another challenge that was identified by middle-line bank managers was limited training by banks to their staff so that they are able to train their clients on how to access ICT banking services. This finding is supported by Sonja (2010) who revealed that lack of human resource capacity in the banks in Uganda to man the administration of the computing services was still a challenge.

From the study findings, it was revealed that there is lack of information on available ICT banking services, which was in line with Duncombe and Boateng (2017) who stated that issues of regulations, lack of information, knowledge and policies are suggested as significant constraints on ICT banking services adoption, low perception of relative advantages compared to personal contact in the branch makes it difficult for people to adopt ICT banking services and slows down of ICT systems.



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.0. Introduction**

This chapter presents a summary of findings, conclusion and recommendations based on analysis of the results and study objectives.

#### **5.1. Summary of findings**

The aim of this study was to assess the adoption of ICT banking services and performance of Equity and Stanbic banks in Kabale District. The study objectives included: to identify ICT banking services offered to clients; to determine the effect of integrating ICT banking services on performance of the commercial banks; and, to analyze the challenges affecting adoption of ICT banking services at the banks. The key finding on ICT banking services offered to clients at Equity and Stanbic bank were electronic banking services, internet banking services, mobile banking services, decision support system and social media outreach. Regarding the effect of integrating ICT banking services on performance of the commercial banks, the findings were that ICT banking services improved the quality of banking services through Quick banking that have reduced long bank queues; access to remote banking services by use of smart phones. The challenges affecting adoption of ICT banking services included; network communication errors; slowing down of ICT systems and equipment; failure of the bank customers to own ICT gadgets to access online services; lack of information on available ICT banking services; and limited training of bank staff.

#### **5.2. Conclusion**

The study concludes that ICT banking services such as electronic banking, mobile banking, internet banking, decision support system, social media outreach, automated teller machine, are available but they are minimally used. This is because the challenges already identified in the preceding chapters such as: limited ICT skills by bank staff; limited gadgets by customers; and poor ICT infrastructure.

#### **5.3. Recommendations**

The findings reveal that many ICT banking services are provided by the banks but the clients have limited information about the existing services. The study recommends that the banks

should intensify promotion of ICT products offered so that the customers can adopt ICT banking services.

There are network communication errors, slowing down ICT systems and equipment. The study recommends that the banks should continuously automate their systems as new technologies emerge since by adopting automated systems, both customer service level and customer relationship will improve for the better. The banks should invest more in technology since technology is an important aspect in the alignment of information systems with business strategy.

The bank managers should organize in-service and capacity building training for their staff on the use of ICT banking services because the findings revealed that some of them did not have adequate skills. This will enable them train their clients on the existing ICT banking services available in their banks.

#### **5.4. Areas of further study**

- i. Automated money transfer services and customer service quality in commercial banks in Uganda
- ii. Effect of automation on performance of commercial banks in Uganda
- iii. Effect of internet banking on operational performance of commercial banks in Uganda

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## APPENDICES

### Appendix 1: Consent form for Respondents (bank managers and clients)

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Dear respondent,

I am Ndayambaje Denis a student of Kabale University offering a Masters of Business Administration. I am conducting a study on Adoption of ICT Banking Services and Performance of Selected Commercial Banks in Kabale Municipality a case of Equity and Stanbic bank

Dear clients,

You are kindly requested to spare me a moment of your precious time to participate in the study. Your answers will be treated with at most confidentiality. The information you provide will be used for academic purposes only. Thanks for your co-operation.

Signature..... Date.....

### Appendix 2: Questionnaire for The Clients

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I am Ndayambaje Denis, a student of Kabale University offering Masters of Business Administration. I am carrying out my research on ‘adoption of ICT banking services and performance of selected commercial banks in Kabale municipality a case of Equity and Stanbic banks’. I kindly request you to provide the necessary information having chosen you to be one of the respondents to enable me complete my research successfully. This questionnaire is for academic purposes only and will be kept confidential.

**Thank you in advance.**

#### SECTION A: DEMOGRAPHIC DATA OF RESPONDENTS

You are kindly requested to tick your most appropriate option

1. Gender

(a). Female

(b). Male

2. Age

(a) 18- 23

b) 24-29

(c). 30-35

(e) 36-41

3. Education level

(a) O-Level

(b). A-Level

(c).Diploma

d) Degree

Others specify.....

4. How long have you been in Stanbic/ Equity Bank?

a) 1-5 years

b) 5-10 years

c) 10-15 years

d) 15-20 years

**SECTION B:**

5. Please respond to the following statements provided Tick appropriately using Yes or No the boxes that most closely fit your opinion

<b>A. ICT banking services offered by Equity and Stanbic banks to the clients</b>	<b>Yes</b>	<b>No</b>
Electronic Banking services.		
Internet banking services.		
Mobile banking services.		
Decision Support Systems		
Social Media Outreach		
Other (specify).....		

<b>B. Effect of integrating ICT banking services on performance of commercial banks</b>	<b>Yes</b>	<b>No</b>
Have ICT banking services such as ATM, mobile banking, internet banking improved banking services in Equity/ Stanbic bank?		
ICT banking services have improved the quality of banking services in the following ways: ( <b>select the most important contribution, only one option</b> )		
a)Quick banking services		
b)Remote banking services		
c)Reduced the bank cues		
d) Use my smart phone to access my account		

<b>C. Identify the greatest challenge that has affected your usage of ICT banking in Equity / Stanbic bank( select only 1 option)</b>	<b>Yes</b>	<b>No</b>
1. Network communication errors		
2. Slowing down of ICT systems and equipment		
3. Ignorance by majority of the customers about ICT usage especially online services		
4. Failure of the bank customers to own ICT gadgets which can enable them access online services		
5. Lack of information on available ICT banking services in Equity / Stanbic Bank		

**Thank you for your cooperation**

### **Appendix 3: Interview Guide for Bank Managers At Equity/ Stanbic Bank**

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Gender

Age

Position (Top, Middle and Operational managers)

1. What ICT banking services are offered by your bank to clients in Kabale District?
2. Explain the effect of integrating ICT banking services on performance of your bank
3. Explain in detail the challenges affecting the adoption of ICT banking services in your bank
4. What strategies have you put in place to improve adoption and use of ICT banking services in your bank?



#### Appendix 4: Observation Checklist

1	ICT banking services offered by Equity and stanbic bank	<ul style="list-style-type: none"> <li>i. Electronic banking services</li> <li>ii. Internet banking services</li> <li>iii. Decision support system</li> <li>iv. Social media outreach</li> <li>v. Mobile banking services</li> </ul>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>
2	How ICT services have helped the banks to perform	<ul style="list-style-type: none"> <li>i. ICT banking services has improved the quality of Quick banking services</li> <li>ii. ICT Banking services has improved the quality of Remote banking services</li> <li>ii. ICT banking services has improved the quality of banking services in Reduction of the bank cues</li> </ul>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>
3	Number of clients	<ul style="list-style-type: none"> <li>i. Many</li> <li>ii. Few</li> </ul>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>
4	Cues in the bank	<ul style="list-style-type: none"> <li>i. Long</li> <li>ii. Short</li> </ul>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>

### Appendix 5: Document Review Guide

<b>Documents that will be reviewed</b>	<b>Content to be reviewed</b>
Bank statements	How the bank has performed in a month
Transactional documents	How transactions are done by the clients of the bank
Financial Reports and Documents	How the bank handles its cash flow in the bank to enable its performance