



**ELECTRONIC BANKING AND CUSTOMER SATISFACTION IN  
CENTENARY RURAL DEVELOPMENT BANK, UGANDA**

**BY**

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## DECLARATION

I, Martin Senoga hereby declare the originality of this academic work to my own efforts and therefore has never been submitted for examination to any university or institutions of higher learning for any academic award. Where secondary sources of information used in this work, have been acknowledged.

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**APPROVAL**

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**Date:** .....

## **DEDICATION**

This dissertation is dedicated to my family more especially my wife and my family for they tolerated me as “an absentee of the family” for the years I spent pursuing the course.

## **ACKNOWLEDGEMENT**

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## **LIST OF ACRONYMS**

<b>ATM</b>	Automatic Teller Machine
<b>BOU</b>	Bank of Uganda
<b>CVI</b>	Content Validity Index
<b>EFT</b>	Electronic Fund Transfer
<b>PAR</b>	Portfolio At Risk
<b>PD</b>	Probability Default
<b>CERUB</b>	Centenary Rural Development Bank
<b>SPSS</b>	Statistical Package for Social Scientists

## ABSTRACT

The study examined the relationship between electronic banking and customer satisfaction in Centenary Bank. The following objectives were aimed at: to establish the relationship between e-funds transfer and customer satisfaction of Centenary Bank; to examine the relationship between telephone banking and customer satisfaction in Centenary Bank and to assess the relationship between internet banking and customer satisfaction in Centenary Bank. The study used a correlation research design employing both quantitative and qualitative approaches. A total of 215 participants were sampled to select 172 respondents. The study findings revealed a significant relationship between E-funds transfer banking and customer satisfaction in Centenary bank ( $r=0.669$ ,  $P=0.022$ ). Secondly, a significant relationship between telephone banking and customer satisfaction in Centenary bank was found out ( $r=0.544$ ,  $P=0.039$ ). Lastly, findings indicated that internet banking has a negative relationship with customer satisfaction of Centenary Bank ( $r= -0.276$ ,  $P=0.041$ ). It was concluded that there is a significant relationship between a combination of E-funds transfer, telephone banking, internet banking and customer satisfaction at Centenary Bank. Thus, it was recommended that for purposes of promoting e-funds towards finance performance, building trust with the customers would be important for Centenary Bank while improving the usefulness of electronic banking. In courtesy to achieve more with telephone banking on financial performance, it is imperative that Centenary Bank ensure security and privacy are in place to monitor and evaluate the usage of the implemented technologies. Lastly, on internet banking and the customer satisfaction of Centenary Bank, the bank needs to make sure that awareness about internet banking is created in the public through massive advertisement on radios, televisions and newspapers.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

This study assessed the relationship between electronic banking and customer satisfaction in commercial banks in Uganda with specific reference to the Centenary Rural Development Bank. In this study, Electronic banking was treated as the independent variable, whilst customer satisfaction was treated as the dependent variable. This chapter presented the background to the study, statement of the problem, purpose of the study, objectives, research questions, hypotheses, conceptual framework, significance, justification, scope of the study, and operational definitions of terms.

### **1.2 Background of the Study**

The background to the study was presented in four themes including historical, theoretical, conceptual, and contextual background.

#### **1.2.1 Historical Background**

According to World Payments Report (2016) on a global perspective, the banking industry came to realize unexpected outcomes that came with associated post-crisis in the era of 2012 to 2015. This kind of scenario led the banking industry to undergo a period of foremost disturbance to realize trust from their clientele that was greatly affected by the negative financial crisis. The growth of industries experienced a slowdown in development possibly by the effects emanating from the growth rate of the top 1000 banks worldwide (World Payments Report, 2016). This stunt growth of the banks was projected to be at 2.7% which saw a double slump before the crisis during the years of 2014 to 2016. Another issue noted was the involved and associated risks that would

affect profitability that required mitigation and management to ensure recovery. The risk management enabled stability in the pre-crisis era which registered a growth of 3.8% in the era of 2007 to 2010 (World Payments Report, 2016). This therefore brought about confidence among the bank clientele that demanded the rather effective financial services. Globalization and its advantages that involve the use of technology especially Information Technology (IT) met swift meeting of clientele needs and timely accuracy in the global banking operations. The introduction and utilization of IT in the global banking operations enabled the realization of the 3.8% in the era of 2009-2013 that realized profits of \$63.6 billion (World Payments Report, 2016).

In developing countries particularly Africa, Standard Bank and the Central Africa Building Society pioneered the introduction of the significant electronic automated systems innovation and installed the first Automated Teller Machines (ATMs) across the African Continent (Kasita, 2004). In Uganda, the innovation (electronic/automated) banking was tested and adopted by the bank users in the year 1993 and later adopted by majority of the players in the banking industry. This was aided by the diffusion of information through the existing IT systems in the banking sector (Kasita, 2004). Standard Chartered Bank announced its Auto Teller Machine in the year 1997 hence leading other players in the market/banking sector (Standard Chartered Bank Profile, 2004). By 2001, there was continued progress being made in Uganda in the use of ATMs in Kampala City due to ATM establishments. It was hoped that the risk of money transfer from location to location would be reduced. It was hopefully thought by many in the banking sector and banking industry users that the VISA credit cards would find their way in the market to facilitate easy access to transactions (Kakembo, 2001). The “Bankom” interconnection electronic system was introduced in Uganda in the year 2004 to facilitate the local banks utilize the IT systems. This enabled the mobile phone subscribers use phones to transact businesses with the banking systems (Kanyegirire, 2004).

According to Mwebya, as reported by Ssettumba (2004), a payment system in which the transfer of funds is done electronically was introduced in Bank of Uganda in 2004. In Centenary Bank, Internet banking was introduced in 1998 and was restricted to people with basic knowledge of computers and the Internet, technical difficulties and connectivity problems, proxy websites, and security problems such as the problem of electronic bank fraud. It was from such basis that triggered the frequency of internet banking embracement in Centenary Bank to be very low since it is so much in ancient customers. The notable incident was the realization of efficiency in Centenary Bank after the introduction of internet banking though it registered a low utilization at 30%, 40% less than the prediction by 2010 (East African Business Week, 2010, Namirembe 2009). It was against this background that this study endeavoured to sightsee the range of implementation and use of internet banking in Centenary Bank Uganda and its impact on customer satisfaction.

### **1.2.2 Theoretical Background**

This study was guided by the theory of social construction of technology. This theory was advanced by Collins (1975); Pinch (1977,1986); and Pickering (1984). This theory is based on four main assumptions. First, the theory assumes that any technological innovation must have an interpretive flexibility if customer satisfaction is to be achieved. Pickering (1984) postulates that expertise enterprise is an open procedure that can yield diverse upshots reliant on the social situations of improvement. Therefore, he argues that there is a need for technologies to be rooted from intergroup negotiations over the interpretation of observations if future customer satisfaction is to be enhanced (Pinch 1996). The second assumption is that the any new technological innovation must be relevant to the targeted social group. This is because besieged or pertinent social clusters are the bywords of particular explanations, thus, multiple groups may have different definitions of a working technology, so, introduction of new technological development requires



to be implemented until when all groups come to a consensus that their common artifact works (Bijker 1995).

The third assumption of theory is related to closure and stabilization. Pinchard Bijker (1987) agitates that multiple groups of people must be involved in the continued design of the new technology to avoid conflicting images and this should continue until when all conflicts were resolved and the artifact no longer poses a problem to any relevant social group. The last assumption under which this theory is built is wider context. According to Pinchard Bijker(1987), the new technological advancement must be welcomed and fully integrated in the wider socio-cultural and political situation in which artifact development takes place. This will completely make it a success and its goals will be realized widely.

In this study therefore, this theory presupposes that if electronic banking is to be adopted in commercial banks, there is a need to ensure that all customers have the same interpretive flexibility, relevant to all of them, all people targeted or customers are involved in designing the design and fully welcomed by the entire community, if customer satisfaction is to be achieved. This thus form the research assumption that e-funds money transfer, telephone banking and internet banking can have an effect on customer satisfaction if customers have the same interpretive flexibility, relevant to all of them, involved in designing the design and fully welcomed by the entire community.

### **1.2.3 Conceptual Background**

The study was oriented on two main variables that is; electronic banking and customer satisfaction. Electronic banking in this study was conceptualized as the independent variable and financial performance as the dependent variable. The term electronic banking refers to “the provision of

information or services by a bank to its customers, via a computer or television” (Allen et al, 2001). An extra advanced service is one that offers patrons with an opportunity to increase admission to their accounts and implement dealings or to buy merchandise online via the internet (Daniel, 1999). Attuned with the radical mechanisms of the electronic souk, Jordan aggressively established e-banking facilities since 2004 (Central Bank of Jordan, 2009). Moving towards an industrialization nation with knowledge economy as the backdrop, the personal computer and online approach of life is growing in Jordan. In this study, electronic banking has been conceptualized as the provision of banking products and services electronically in form of e-funds transfer technology, telephone banking technology and Internet banking technology, in other-words e- banking (Ssettumba, 2004). According to Venkatesh and Davis (1996), electronic banking consists of e-funds transfer, telephone banking and Internet banking. In this study thus, electronic banking will be measured using e-funds transfer, telephone banking and Internet banking. E-funds transfer banking, in this study, is defined to mean usage of ATMs in the provision of bank services (Lee & Turban, 2001); Telephone banking, according to Venkatesh and Davis (1996) refer to the adoption of telephones services in the banking system in the bank and internet banking meant the extent to which Centenary Bank has adopted website services in its service delivery (Al Gahtani, 2001).

On the other hand, Customer satisfaction means undertakings by a company/an organization to meet the client’s needs and expectations of its goods/services utilized by the client (Stoner, 2003). Customer satisfaction creates a basis for businesses to become innovative and match their services to win clients’ loyalty (Schneider et al, 2006). For purposes of this study, customer satisfaction was looked at basically from the four perspectives of customer referrals, repurchases, word of

mouth and customer loyalty. According to Li, (2002), Customer retention, means the level at which customer remains in centenary bank; for referrals, Schneider et al, 2006 defines this as the ability for customers to refer other customers to the bank and repurchases, refer to the ability of customers to keep on coming and coming back to the bank (Wayne, 2002) and word of mouth, according to Li, (2002) refers to the customer's ability to sweet talk about the bank's services.

#### **1.2.4 Contextual Background**

The Ugandan banking sector experienced some significant revolution and intensified its services in the late 1990s and early 2000s. This saw an evolvement of numerous local commercial banks coming in and out of the market as per the regulation of the central bank (Bank of Uganda). Some the banks that saw exit in the banking industry in Uganda in the same era (1990s and early 2000) included among others; Teefe Bank Gold, Trust Bank, Uganda Cooperative Bank, Greenland Bank and International Credit Bank that were resolved. Uganda Commercial Bank was privatized by selling its mainstream shares and it turned out to be the Standard Bank of South Africa that took over its management (Kakembo, 2005).

Since the introduction of electronic banking in 1993 by the bank of Uganda, most of the commercial banks adopted electronic banking in the service provision in the virtue of improving their customer satisfaction, financial performance and service delivery (Kakembo, 2005). Particularly, Centenary Bank is reported as among the frontline banks in Uganda to introduce electronic banking in their service provision eyeing for improving customer satisfaction. Centenary bank introduced pre-fabricated ATMs to reduce the queues at their access points (Nabayunga, 2006) as well as introduction of ATMs, debit and credit cards, telephones, mobile phones and web sites. All these were done to improve its customer satisfaction while curbing bank fraud, making accounts secure and be accountable to people they serve. However, it is reported

that the customer satisfaction of the bank is still indulged in a number of problems and financial errors. For instance, according to the head of Corporate Affairs by then reported to daily monitor newspaper that Centenary bank was searching a multi-million leaky loan rip-off concerning impostors concealed as Mulago Hospital workers. Between July 11th and September 8<sup>th</sup>2005; the impostors had fortified advances that were anticipated for Mulago Hospital workers. The sum in the scam case was \$135,000, almost 250 Ugandan million shillings. Additionally, the problem of electronic bank fraud is still reported in Centenary bank. For example in 2012, villains heeded into the bank's registers and formed registers presenting that sh10billion was transferred electronically from several customers' accounts to a particular single account at the Iganga Centenary bank branch(East African Business Week, 29, 2010). The existing dismay however, is that this state of affairs has not translated into significant customer satisfaction. It appeared that the electronic banking used in form of e-funds transfer, telephone banking and Internet banking were still being queried.

### **1.3 Statement of the problem**

The emergence of electronic banking had a significant influence to its adoption by commercial banks worldwide. Centenary Bank in Uganda was among the first banks to adopt electronic banking in form of ATMs, telephones, debit cards and websites (Mugambi, 2011). These were adopted in the view of improving a number issues including customer satisfaction that is in form of improving customer referrals, repurchases and customer loyalty. However, this has not been the case, a high degree of customer dissatisfaction is still manifested in Centenary Bank in form of increased queues in the banking halls, increased customer complaints', theft on Automated Teller Machines, congestion among other indicators of customer dissatisfaction. In 2013; Centenary Bank was reported to have lost over UGX 800million shillings for its clients which was swindled

using ATMs (New Vision, March, 23, 2013). In addition, UGX 200million shillings were embezzled from the bank from outsiders who by all means acquired Pin codes and the bank was made to pay for the losses (Centenary Bank annual report, 2010). In 2012, criminals hacked into the bank's records and created records showing that sh10billion was transferred electronically from several customers' accounts to a particular single account at the Iganga Centenary Bank branch (East African Business Week, 29, 2010). In further confirmation of the problem, complaints can still be heard from customers about increased lines/queues, disappointments due to networks breaks and poor response rate on their queries. These are all indicators of low customer satisfaction (Daily Monitor, 2<sup>nd</sup> September, 2016). In an effort to address this problem, Centenary Bank launched a mechanism to curb complaints and improve efficiency; however, the problem has persisted. Thus, if this problem is not checked, it would result in reduction of customers using Centenary Bank and was directly the bank's revenue and profitability levels. Hence, it is as of this circumstantial that the researcher selected attention to investigate whether electronic banking in one way or the other is linked to customer satisfaction in Uganda's commercial banks using Centenary Bank as a case study.

#### **1.4 Purpose of the Study**

The purpose of this study was to examine the relationship between electronic banking and customer satisfaction at Centenary Rural development Bank.

#### **1.5 Objectives of the Study**

The objectives of this study were:

- i. To establish the relationship between e-funds transfer and customer satisfaction of Centenary Bank.

- ii. To examine the relationship between telephone banking and customer satisfaction of Centenary Bank.
- iii. To assess the relationship between internet banking and customer satisfaction of Centenary Bank.

## **1.6 Research Questions**

This study sought to answer the following questions:

- i. What is the relationship between e-funds transfer banking and customer satisfaction of Centenary Bank?
- ii. What is the relationship between telephone banking and customer satisfaction of Centenary Bank?
- iii. What is the relationship between internet banking and customer satisfaction of Centenary Bank?

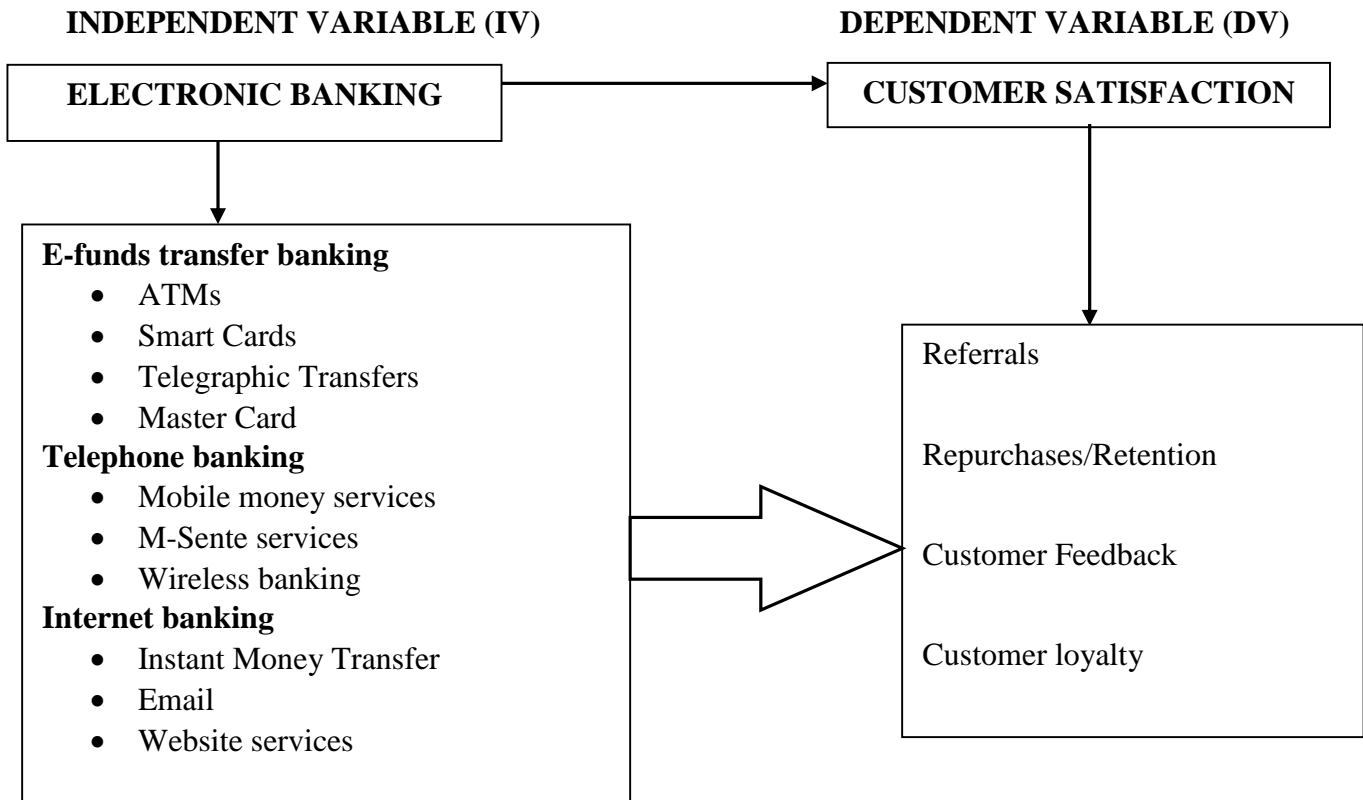
## **1.7 Hypotheses**

This study tested the hypotheses that:

- i. There is a relationship between e-funds transfer banking and customer satisfaction of Centenary Bank.
- ii. There is a relationship between telephone banking and customer satisfaction of Centenary Bank.

- iii. There is a relationship between internet banking and customer satisfaction of Centenary Bank.

### 1.8 Conceptual Framework



**Fig.1.1: The conceptual framework**

**Source:** Adapted and modified by researcher from literature (Bakkabulindi,2006; Jayawardhena & Foley,2000; Sohail & Shanmugham, 2003).

From the conceptual framework in Figure 1.1, it was hypothesized that electronic banking has a relationship with customer satisfaction. If the financial institution puts in place e-fund banking technology, telephone banking and internet banking, this can influence customer satisfaction in terms of improving its customer referrals, repurchases, word of mouth and customer loyalty. However, the above relationship can be mitigated by other factors including Advertising, Customer care and Bank Operational policy

## **1.9 Significance of the study**

This study may benefit the following parties:

**Policy makers:** the study may help improve on the electronic banking services of Centenary Bank and further may explain and their effects on customer satisfaction. This may enable policy makers to come up with policies that support the adoption of electronic banking in all forms to be used by commercial banks in Uganda.

**Commercial Banks:** the study may be beneficial on how to improve on its customer satisfaction. Customer satisfaction may enhance the performance of the bank since many customers can easily be attracted to start using the bank services

**Academicians:** It is expected also that the study may add knowledge to the existing body of research literature relating to electronic banking and customer satisfaction in Uganda and other similar developing economies in Africa and the world at large.

**Researcher:** It is further anticipated that stakeholders and new Remittance Service Providers (RSPs) will use the findings from this study as a basis for taking decisions in investing or engaging electronic banking services in relation to its effect on customer satisfaction.

## **1.10 Justification of the study**

Prior studies Bakkabulindi (2006); Jayawardhena and Foley (2000); Sohail and Shanmugham (2003) have been done on electronic banking and customer satisfaction in profit-making banks in Uganda. However, no study has been done on the aforementioned topic in Centenary Bank considering the same dimensions of electronic banking like e-funds transfer, telephone banking and internet banking. Thus, the rationale behind the choice of this study is to empirically establish the relationship between electronic banking and customer satisfaction in commercial banks. The



researcher thus chose to carry out as research with an aim of the linkage between the aforementioned dimensions of electronic banking and customer satisfaction.

### **1.11 Scope of the Study**

#### **Content Scope**

This study was limited on examining the relationship between electronic banking and customer satisfaction. Electronic banking in this study had the dimensions of e-funds transfer, telephone banking and internet banking whilst; customer satisfaction was measured by customer referrals, repurchases, word of mouth and customer loyalty.

#### **Geographical Scope**

The study was conducted in Centenary Bank headquarters in Kampala, and selected branches within Kampala central region in Uganda. This case study was chosen because it was accessible to the researcher and ties in very well with the operationalization of the research problem under study.

#### **Time Scope**

The study focused on the time framed 2009-2017 because this is the period when the customer satisfaction of Centenary Bank has been characterized by massive inefficiencies. It was reported that the improvement in the utilization of electronic banking at Centenary Bank rose from 12-17% from the same period (Centenary Bank annual performance report, 2015).

### **1.12 Operational Definitions of Terms**

**E-funds transfer banking:** in this study, this referred to the adoption of ATMs in the provision of bank services

**Customer Loyalty:** this referred to severely thought commitments to utilize a chosen product/service dependably in the imminent, thus instigating monotonous same trademark or same brand-set acquiring, despite situational inspirations and promotion exertions taking the probable to cause converting performance.

**Customer retention:** this referred to the level at which customer remains in centenary bank.

**Internet banking:** this meant the extent to which Centenary Bank has adopted website services in its service delivery.

**Referrals:** this meant the ability for customers to refer other customers to the bank

**Repurchases:** this referred to the ability of customers to keep on coming and coming back to the bank

**Telephone banking:** this referred to the adoption of telephones services in the banking system in the bank

**Word of mouth:** This referred to the customer's ability to sweet talk about the bank's services.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviewed the literature related to establishing the impact of electronic banking on customer satisfaction at commercial banks. The review was conceptualized under the objectives of the study and focuses primarily on e-funds transfer, telephone banking, banking policies and

internet banking and their relationship with financial performance. These are considered the pillars of the study.

## **2.2 Theoretical Review**

The theoretical framework for this study was derived from the theory of social construction of technology. This theory was advanced by Collins (1975); Pinch (1977,1986); and Pickering (1984). This theory is based on four main assumptions. First, the theory assumes that any technological innovation must have an interpretive flexibility if customer satisfaction is to be achieved. The second assumption is that the any new technological innovation must be relevant to the targeted social group (Bijker 1995). The third assumption of theory is related to closure and stabilization. The last assumption under which this theory is built is wider context.

This theory has three main strengths. The first one lies in assuming interpretative flexibility. This means that each technological artifact has different meanings and interpretations for various groups (Bijker and Pinch, 1987). This means that the adoption of electronic banking can be enhanced if clients flexibly interpret the technology as ease to use. The second strength lies in involving relevant social groups. The theory agitates that the most basic relevant groups are the users and the producers of the technological artifact, but most often many subgroups can be delineated-users with different socioeconomic status, competing producers, etc. Sometimes there are relevant groups who are neither users, nor producers of the technology, for example, journalists, politicians, and civil organizations should be included in promotion of the technology and in this case electronic banking technology if customer satisfaction is to be met (Trevor, 2009). The third strengths is with design flexibility. Just as technologies have different meanings in different social groups, there are always multiple ways of constructing technologies. A design is only a single point in the large field of technical possibilities, reflecting the interpretations of

certain relevant groups. Therefore, understanding the design by users can always have a significant impact on their satisfaction.

Despite the strengths of the theory in explaining the role of technology in improving customer satisfaction, it has some limitations or weaknesses in social constructivism. The theory explains how technologies arise, but ignores the consequences of the technologies after the fact. This results in a sociology that says nothing about how such technologies matter in the broader context (Trevor, 2009). Secondly, the theory examines social groups and interests that contribute to the construction of technology, but ignores those who have no voice in the process, yet are affected by it. Likewise, when documenting technological contingencies and choices, it fails to account for those options that never made it to the table. According to Winner (2007), this results in conservative and elitist mentalities that affect the usage of any new technology. Third, the theory is superficial in that it focuses on how the immediate needs, interests, problems and solutions of chosen social groups influence technological choice, but disregards any possible deeper cultural, intellectual or economic origins of social choices concerning technology that may affect satisfaction of the user community. The last weakness of this theory lies in actively avoiding taking any kind of moral stance or passing judgment on the relative merits of the alternative interpretations of a technology. This indifference makes it unhelpful in addressing important debates about the place of technology in human affairs.

In this study therefore, this theory presupposes that if electronic banking is to be adopted in commercial banks, there is a need to ensure that all customers have the same interpretive flexibility, relevant to all of them, all people targeted or customers are involved in designing the design and fully welcomed by the entire community, if customer satisfaction is to be achieved. This thus form the research assumption that e-funds money transfer, telephone banking and

internet banking can have an effect on customer satisfaction if customers have the same interpretive flexibility, relevant to all of them, involved in designing the design and fully welcomed by the entire community.

### **2.3 E-funds transfer and Customer satisfaction**

E-funds transfer has been highly depicted to have a relationship with customer satisfaction. From, Morris-Cotterill (2002) ATMs have extended banking services to the remote areas depositing and withdrawal of funds can be carried out in rural areas. He adds that this has enabled loading and unloading of cash in small communities or in widespread communities where people gather, however real cash ATMs for general use and deposit would require more servicing and more security (Morris-Cotterill, 2002). This is supplemented by Cracknell (2004) who had undertaken a study in Malawi. He opined that Malawi Central Bank established a smart card infrastructure with biometric enabled ATMs with an aim of reducing insecurity with in the banking industry, with the use of such developments on the ATMs, withdrawal and depositing of cash is now done safely thus yielding positive results to many users.

In congruence with the above Cracknell (2004)'s study in Malawi, Anguelov et al (2004) had ascertained that e-funds transfer is very much vital in cash transfer and client satisfaction since it saves on time customers spend in banks. According to a Survey of Consumer finances (2001) as reported by Anguelov (2004), e-funds transfer has features such as direct deposit, an ATM or debit card among the rest and these have improved on convenience among customers using e-funds transfer services. This is because at any place in the world, someone can easily access the money. Wucker (2004) add that the use of e-funds transfers technologies such as ATMs and e-cheques

have shown positive response. For example, in Latin America, migrant workers use ATMs to send money home in which members of their families can easily withdraw funds. This therefore made it easier for the migrant workers to send cash easily to their families at cheaper costs through the use of banking services. In this way customers are able to withdraw and deposit cash easily as compared to the former days when the use of such services was not available.

Gourlay and Pentecost (2005) further extends this by indicating that funds are transferred electronically using ATMs to provide retail banking services allowing 24hours a day cash withdrawal, balance verification and bill payment at branches and remote locations away from branches. They gave an example that ATMs in the UK are seen as a substitute capital for labor particularly in routine human teller operations that has increased on customer loyalty with the bank. Transaction costs associated with need to withdraw cash expectantly are lowered, (Haynes and Thompson, 2000 as reported by (Gourlay and Pentecost,2005).ATMs are widely used in transfer of cash. They are mainly located at shopping stations to help customers in carrying out shopping easily (Organization for Economic Corporation and Development, 2003). For example in Japan, Gourlay and Pentecost (2005) explained that Ito-Yokado Stores is planned to provide banking services through its stores. It is worth noting that electronic transactions can be carried out using e-cheques and e-cash for large amounts of money. There are positive results noted in the use of e-funds transfer with increased use of ATMs and e-cards.

According to the Australian Bankers Association (2002) as reported by Arch and Burmeister (2003), in Australia emphasis is placed on e-fund money transfers as they improve on easy checking of accounts by clients at a time of their convenience. Further, it was also noted that Australians with visual impairment were introduced to audio-enabled ATMs, through an initiative jointly supported by the National Australian Bank's ATM supplier (Diebold) and Blind Citizens

Australia. The first of these was installed at the Royal Victorian Institute for the Blind premises. This finally found out that use of e-funds transfer technology in Australia had enabled the banking industry to provide services to its clients because even the blind can deposit and withdraw their money from the banking institutions hence indicating a desirable dimension. While the above authors give their views on ICTs their concentration is on ATMs rather than technologies such as credit cards and debit cards. Berger (2002) studied other forms of e-fund money transfer and their effects on customer retention in the commercial bank in the US. It was noted that IT-based delivery systems like ATMs led to improvements in the bank performance and consolidation of the industry during the deployment of technologies (Berger, 2002). Berger, (2002) further posited that without use of smartcards, it becomes very hard for customers to be satisfied since they have to spend a lot of time in lines and this becomes tiresome. Banks which have e-funds services will always take the clients for those commercial banks that do not have these services because clients keep referring themselves to those banks which have those services.

Miyazaki and Krishnamurthy (2002) concurs with above authors while articulating that e-funds transfer in banks assures increased security to clients which makes it easy for them to keep using them over and over which is an element of satisfaction. Security relates to the extent to which the e-funds transfer guarantees the safety of customers` financial and personal information, an area which has witnessed a proliferation of research interest (Kimery & McCord, 2002). Security can be assured by providing a privacy statement and information about the security of the shopping mechanisms and by displaying the logos of trusted third parties. For example, displaying trusted third party logo guarantees a certain level of security protection and has been shown to significantly influence how consumers regard the trustworthiness of e-vendors (Jiang et al, 2008).



In US, E-funds transfer was made possible by the creation of Web browsers. In this mode of online banking, consumers do not have to purchase additional software (all they need is the browser), store any data on their computer, backup any data, or wait for software upgrades or new versions (Kolsaker and Payne, 2002).

Kolsaker and Payne (2002) further explain that all transactions occur on a secure server of a bank via the internet. The bank has all of the required data and software to execute the transactions. Customers go the bank's Web site, log in, and then take advantage of the bank's internet services. Typical bank services are account access and review, transfers of funds between accounts, bill payment, and then a widening variety of new services and products. Security plays an important role in internet banking and so there are several protocols for internet security of encrypted data packets (Dong-Her et al; 2004). Customers are not aware of the encryption, however, only certain versions of popular internet browsers are acceptable to some banks due to their security limitations (Kolsaker and Payne, 2002). Therefore, it is hypothesized that privacy has a positive effect on customer satisfaction.

Jayawardhena and Foley (2000) and Pikkarainen et al (2004) claim that content on online banking on the web site is one of the factors influencing online-banking acceptance. On the other hand, quality designs, graphics or colors and the propensity to portray good image of the bank would enhance efficient use of navigation. In the context of internet banking, there is a growing body of research that has looked at influences on customer satisfaction. Jayawardhena and Foley (2000) illustrated that such web site features as speed, web site content and design, navigation, interactivity and security all influence user satisfaction whereas Broderick and Vachirapornpuk (2002) found that the level and nature of customer participation had the greatest impact on the quality of the service experience and issues such as customers' zone of tolerance, the degree of

role understanding by customers and emotional response potentially determined, expected and perceived service quality. Yang and Fang (2004) found that ease of use and usefulness are important factors in evaluating online service quality. Earlier Doll and Torkzadeh (1988) identified five quality dimensions that have an impact on “end-user” satisfaction in an online environment: content, accuracy, format, ease of use, timeliness. Thus, it is hypothesized that content has positive effect on customer satisfaction.

Despite the contribution of the above study, the influence of e-funds transfer on users in the banking industry using a case study of centenary bank can be established by an empirical approach that the study seeks to use (Batanda, 2001). In Uganda, while ATMs are found to have some setbacks such as limited amount of functionality, queuing and shutting down when they are empty, they have caused an aggressive competition among banks, which has been claimed to have strengthened the banking culture and at the end improve customer satisfaction. This belief is what this study endeavoured to investigate while using Centenary Bank Limited Uganda.

#### **2.4 Telephone banking and Customer satisfaction**

It is reported in a number of studies and scholars that the advent of telephone banking improved customer satisfaction in commercial banks. From the study done by Ovia (2001), he ascertained that since telephone banking is a facility that enables customers, via telephone calls, find out about their position, with their bankers merely dialing the telephone numbers given to them by the banks, it has made it easy for clients to have access to their information just by pressing a button of inquiry. Jayawardhena and Foley (2000) adds that the computers on the phone would require special codes given to the customers as a means of identification of authentic users before they can receive any information they requested for and this is a factor of convenience and security among the customers. This is a service introduced into the banking balance as a result of computer

telephone technology being made available (Ovia, 2001). Doll and Torkzadeh (1988) says that telephone banking has made more easily for clients to reach out to their accounts in the banks, deposit, withdraw and send money. They added that the technology banking has a universe of possible application limited only by the imagination. These areas include: Account balance enquiry; Account statement printing; intra-Banks Account to Account Transfer; inter-banks Account to Account Transfer; Download Account Transaction etc. Telephone and PC banking brings the bank to the doorstep of the customer, it does not require the customer to have his premises; interactive Voice Response becomes a regular feature of operations; Text-to-speech capability becomes reality; a uniformed messaging capability become permanent feature of the bank.

Kolsaker and Payne (2002) further posit that the card system is a unique electronic payment type. The smart cards are plastic devices with embedded integrated circuit being used for settlement of financial obligations. The power of cards lies in their sophistication and acceptability to store and manipulate data, and handles multiple applications on one card securely (Amedu, 2005). Depending on the sophistication, it can be used as a Credit Card, Debit Card and ATMs (Automatic Teller Machine). While the electronic card is gaining popularity in most countries now, the Spanish financial Institution demonstrated the highest implementation and update of smartcards across Europe (Amedu, 2005). The Smart Card was introduced into the market to reduce or eliminate problems of carrying cash about (Amedu, 2005). It is electronically loaded with cash value and carried about like credit card and stores information on a microchip. The microchip contains a “purse” in which value is hold electronically. In addition, it also contains security programs; these protect transactions between one card user and the other. It can also be transferred directly to a retailer, merchant or other outlet to pay for goods and services, and like cash, transaction between

individual without the needs for banks of the other third parties. Also, the system does not require central clearing (Jayawardhena and Foley, 2000). It is valued immediately. Also the system allows transfer of one value to the other hence it operates like cash.

Mishra (2009) ascertained that the use of telephone banking still remains the most widely used and acceptable means of settling financial transactions and obligations and this has been because customers in a number of banks find it more immediate and allows receipt of money at any time one wishes. In USA, where the use of cash is still prominent, compared with European countries, it represents 50 percent or more of the total transactions and Mishra (2009) in his study, established that the reason for this has been referrals. Many satisfied customers will always recommend others to use telephone banking. Amedu (2005) added that despite the fact that cash is a non-electronic payment method; the physical carriage of cash as well as the visit to the bank branches is being reduced by the introduction of telephone banking. Short messaging device allows a bank customer to withdraw cash from his account via a cash dispenser (Machine), and the account is debited immediately.

Black et al (2001) further agitates that telephone banking provides higher degree of convenience that enables customers to access their phones at all times and places. Apart from that, the ease of access of phones is perceived as a measure of relative advantage (Polatoglu and Ekin, 2001). Johnston (1995) revealed that there are some service quality determinants that are predominantly satisfiers and others that are predominantly dissatisfies with the main sources of satisfaction being attentiveness, responsiveness, care and friendliness. The main sources of dissatisfaction are integrity, reliability, responsiveness, availability and functionality. According to Ainscough and Luckett (1996), the provision of customer interactivity is an important criterion that attracts users in the delivery of telephone banking. Gerrard and Cunningham (2003) also identify other factors

of paramount importance in ensuring the success of telephone banking since many clients find it more affordable. For instance, the provision of interactive loan calculators, exchange rate converters, and mortgage calculators on the web sites draw the attention of both users and non-users into the bank's web site. A UK study uncovered five key service quality attributes, such as security related issues, convenience, speed and timeliness of the service, and product variety/diverse features (White and Nteli, 2004). Therefore, it was accepted that convenience of telephone banking has positive effect on customer satisfaction

Bohmet al (2000) assert that some banks have always accepted instructions by telephone from trusted customers well known to them, as part of their ordinary branch banking service. Telephone banking requires a customer and bank to agree at the outset of the relationship a small category of 'security information' to be used to verify the customer's authority to give telephone instructions and usually include a password chosen by the customer (Bohmet al, 2000). Offering high quality services to satisfy consumers' needs, at lower costs, are potential competitive advantage of e-banking. Some studies show that telephone banking has successfully reduced operating and administrative costs (Siriluck and Speece, 2003). Cost savings have helped telephone based banks offer lower or no service fees, and offer higher interest rates on interest-bearing accounts than traditional banks (Gerlach, 2000). Therefore, it is hypothesized that fees and charges when using telephone banking have positive impact on customer satisfaction.

Further, Idowa et al (2002) studied The Effect of Information Technology on the growth of the Banking Industry in Nigeria. This study concentrated on the use of technologies such as telephone banking technology. It was noted that the use of ICT ensured a quick and improved services delivery to customers in Nigeria, thus indicating desirable outcomes. While the above study showed positive correlates in Nigeria it does not point to the context in Stanbic bank thus leaving

a gap that the study sought to fill. Therefore, they left a very big gap that called for serious attention from this study as its objective is about establishing telephone banking influence on customer satisfaction in Centenary bank.

## **2.5 Internet banking and Customer satisfaction**

Online Banking offers a higher level of convenience for managing one's finances even from one's bedroom (Nath et al, 2001). However, it continues to present challenges to the financial security and personal privacy. Many people have had their account details compromised, as a result of online banking. Thus, if one is going to use it for financial transactions, he should be aware of the risks involved. Awareness of the risks and problems enables him to take precautions for a more secured online banking experience. Siriluck and Speece (2003) ascertained that while carrying out online transactions, there are many instances when the banker might need help of a representative, from the bank. Hutchinson and Warren (2003) argue that the brick and mortar banks have customer care representatives who are easier to talk to, but in case of online banking, in which the banks provide customer care numbers, the bankers find it difficult to get their problems solved. Sometimes there is congestion in the network and they have to wait for some time, in order to talk to the bank's representative at the other end. Once the line is put through, one may either get somebody helpful and knowledgeable or may not, leaving him in a baffled and confused situation (Siriluck & Speece, 2003).

Flavián et al (2004) agitates that banks use online banking as it is one of the cheapest delivery channels for banking products (Pikkarainen et al, 2004). Such service also saves the time and money of the bank and the clients with an added benefit of minimizing the likelihood of committing errors by bank tellers which increases possibility of satisfaction among customers (Jayawardhena & Foley, 2000). Robinson (2000) believes that the supply of internet banking

services enables banks to establish and extend their relationship with the customers. There are other numerous advantages to banks offered by online banking such as mass customization to suit the likes of each user, innovation of new products and services, more effective marketing and communication at lower costs (Tuchilla, 2000), development of non-core products such as insurance and stock brokerage as an expansion strategy, improved market image, better and quicker response to market evolution (Jayawardhena & Foley, 2000).

Wise and Ali (2009) argued that many banks want to invest in ATMs to reduce branch cost since customers prefer to use them instead of a branch to transact business. The financial impact of ATMs is a marginal increase in fee income substantially offset by the cost of significant increases in the number of customer transactions. The value proposition however, is a significant increase in the intangible item customer satisfaction. The increase translates into improved customer loyalty that in result in higher customer retention and growing organization value. Internet banking is a lower-cost delivery channel and a way to increase sales. Internet banking services has become one of the most important factors in the business economy today.

Hoffman and Novak (1996) find that there is a significant correlation between download speed and user satisfaction. Speed of download depends on the nature of the site downloaded content, the computing hardware and method of connection used to download information (Jayawardhena and Foley, 2000). Most sites demonstration is small snapshots, and some users have to download the program in order to view the demonstration. Most people perceive downloading may import unwanted viruses, and consume hard disk space. Very often, slow response time after any e-interaction leads to a delay of service delivery and makes consumers unsure about whether or not the transaction is completed (Jun and Cai, 2001). Johnston (1997) illustrates that certain actions, such as increasing the speed of processing information and customers, are likely to have an

important effect in terms of pleasing customers; however other activities, such as improving the reliability of equipment, will lessen dissatisfaction rather than delight customers and suggests that it is more important to ensure that the dissatisfiers are dealt with before the satisfiers. Thus, it is hypothesized that speed has positive effect on customer satisfaction

Ayadi (2003) explains that access to electronic means of payment and the high number of customers connected to the Internet has changed the perception of banks toward market and increased the development of Internet Banking. Hutchinson and Warren (2003) argue that Internet banking requires a sound security procedure that involves designing effective methods via which users can be authenticated in a remote environment such that transactions being conducted are secured within their respective environments. Internet banking technology has made remarkable changes in the banking industry, which include: cost reduction due to electronic processing carried out on the Internet. For example the US while the average transaction cost at a full service bank is about \$1.07, it reduces to \$0.27 at an ATM and falls to about a penny if the same transaction is conducted on the web (Nathet al, 2001). In the Australian banking industry sophisticated functionality is routinely offered to customers to make download of account history in various formats and preview history

Ezeoha (2005) studied Regulating Internet Banking in Nigeria and noted that there are security concerns in Internet banking where fraud has become a daily business to some individuals; Internet banking has remained insignificant due to fraud and forgery, e-banking services are offered in Naira only and that in Nigeria Internet banking may take a long time to fully become one of the economic relevance in the country banking practice because of fraud which has made it complex hence causing few customers to transact their businesses through the Internet. Coupled to that is



that the development of bank websites does not go beyond information purposes. Poor government measures have also affected the right environment for Internet banking (Ezeoha, 2005).

Given the state of Internet banking in Nigeria one can argue that its influence is an indicator of an undesirable dimension. In Uganda, Internet banking is limited to banks with in Kampala. Nile Bank in Uganda avails information to its customers online through the use of the bank web site. Other services offered include utility payments for electricity and water, and 3rd party payments like post-paid telephone bills and much more which has enabled customers to affect their bills without physical appearance to the bank hence avoiding time wastage. SMS can also be provided through True African online to get any inquiries from the bank as compared to before when one had to get to the bank physically (Yang and Jun, 2002). This study will endeavour to contextualize the literature indicated by different authors in Uganda while using Centenary Bank Uganda Limited.

## **2.7 Summary of Literature Review**

The literature reviewed clearly indicates that there are a number of studies in place that have viably established that the effect of electronic banking and customer satisfaction in commercial banks. However, key gaps have been identified that calls for conducting of this study. Most of the gaps are in form of historical, methodological, conceptual, theoretical and contextual. Contextually, it is clear that electronic banking has an effect on customer satisfaction in commercial banks; however, the literature ignores the basic indicators as adopted in this study and does not address what is happening in Centenary Bank. Methodologically, the literature reviewed was designed as a research paper which qualifies it to lack the required empirical basis of evaluating the study variables in a setting like Centenary Bank. Additionally, the literature reviewed seems to have been done previously in the years below 2015, we are currently in 2017 and this study is called to

verify what may be happening currently about the effect of electronic banking and customer satisfaction in commercial banks. Therefore, this study will be undertaken to measure the exact dimensions and indicators to come up with empirical basis of the study while closing the trends of disparity observed in the literature above while using customer satisfaction in Centenary Bank Uganda. This study endeavoured to fill these gaps.

Conceptually, the study ignores the most important attributes of the essential dimensions of the study. For instance, under the E-funds transfer banking, it is clear that the literature reviewed did not capture everything to do with ATMs, Smart Cards and Telegraphic Transfers. On telephone banking, literature ignored some evidences on how mobile money services, M-Sente services and wireless banking affect customer satisfaction in Centenary Bank Uganda. This study will endeavour to fill such gaps while exhausting every concept of the study dimensions. On internet banking, literature lacks in explaining all concepts including instant Money Transfer, email and website services in a setting of Centenary Bank Uganda.

Theoretically, the understanding of study variables seems indifferent from what the theory points out. There was a main criticism in the theory used adopted in this study. For instance, the theoretical underpinnings of this study like the theory of social construction of technology. This seemed generic and lacks an empirical focus on what is exactly happening in Centenary Bank. This study endeavored to fill this gap by practically experimenting the theoretical constructs on what is been reported by respondents using a setting like Centenary Bank Uganda.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

Under this chapter, the presentation of how the actual research was conducted is shown. This ranges from the study design, sample population and selection, data collection methods, data collection tools, data analysis, measurements of variables and ethical considerations.

#### **3.2 Research Design**

This study adopted a correlation research design (Saris and Revilla, 2015). A correlation research design refers to a quantitative research design involves two or more quantitative variables from a similar group of subjects and it tries to establish the relationship between the two variables as to whether they have anything in common (Sekaran, 2003). Theoretically, any 2 quantitative

variables can be correlated (Amin, 2005). A correlation research design that was used in this study enabled the researcher to find out the relationship between the study variables (Sekaran, 2003). In addition, the study used a triangulation approach that includes both qualitative and quantitative approaches.

### 3.3 Study Population

The study population consisted of 215 respondents (Centenary Bank human resource manual, 2013). These consisted of 10 administrative bank managers and 120 lower bank officials using main branch (Mapeera Building) and 85 customers. The administrators were chosen because they had the responsibility of overseeing the implementation of the electronic banking in the bank. The lower bank officials were chosen because they were aware of what was taking place in the bank and the impact of the electronic banking on the bank performance. The customers were selected because they were expected to express their taste and experiences of using electronic banking at Centenary Bank.

### 3.4 Determination of the Sample Size

To determine the sample that was used in this study, the Morgan and Krejcie (1970, as cited in Amin, 2005) sampling tables were used and the sample determination was done as reflected in table 1 below:

**Table 3.1: Sample Size of Respondents and Sampling Technique**

Category of Population	Population Size	Sample Size	Sampling Technique
Administrative staffs	10	5	Purposive sampling
Bank lower officials	120	92	Simple Random sampling
Customers	85	75	Purposive sampling

<b>Total</b>	<b>215</b>	<b>172</b>	
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Source: primary data ((2015)

### **3.5 Sampling Techniques**

In sampling, the study involved purposive and simple random sampling techniques. Purposive sampling was used to select the administrative staff and customers as they were key figures in relation to their knowledge of the matter that was being studied (Sekaran, 2003). Simple random sampling allowed equal representation of other respondents to be part of the study as suggested by Mugenda and Mugenda (2003) and these included the bank lower officials. The study respondents were divided up into categories as described in table 1 above.

### **3.6 Data Collection Methods**

Data was collected from primary sources. Qualitative and quantitative methods were used in the collection of data. Primary data was collected using self-administered questionnaires and interviews.

#### **3.6.1 Survey**

According to Amin (2005) a questionnaire survey in research is a method that considers a series of questions that aim at acquisition of information from respondents. The questionnaire survey method was employed to gather primary data from lower bank officials through a semi-structured questionnaire. The respondents had an obligation of selecting responses in the tool basing on their choses as per their experience with the statements (Amin, 2005).

#### **3.6.2 Interview**

Interview refers to the method of collecting data by asking people questions and following up or probing and prompting their answers (Kathuri, 2004). This was used to collect primary data from

administrative bank staff of Centenary Bank. It involved use of a semi-structured interview guides as presented in my proposal. The method of interview involved a free interaction between the researcher and the respondents. Open ended questions were used to gather information where by the researcher was being guided by the tool to ask the questions and the respondents' responses were being recorded. This kind of encounter allowed for probing to establish the occurrences of given phenomenon in regard to identified concepts that were created and formed questions asked (Mugenda & Mugenda 2003).

### **3.7 Data Collection Instruments**

These are the tools for data collection (Mugenda & Mugenda, 2003). In this study, these were included; Questionnaire and Interview guide. These were used because it is important to implement the data collection methods highlighted above. The tools were generated basing on conceptual framework and this was demonstrated in Appendices I and II.

#### **3.7.1 Questionnaire**

A questionnaire is an instrument used in research that contains closed ended questions with choices that triggers that aim at collecting data from participants in the study (Amin, 2005). The questionnaire in this research undertaking was used to gather data among the lower bank officials in Centenary Bank Uganda. The researcher distributed the questionnaires among the sampled respondents and they were given time to fill them at their own convenience and later the researcher went back to collect the filled tools.

### 3.7.2 Interview guide

An interview guide refers to a qualitative tool of collecting data by asking people questions and following up or probing and prompting their answers (Kathuri, 2004). The researcher prepared and used an interview guide that was used to conduct interviews with administrative bank staffs in Centenary Bank. Interviews were chosen because they were thought to provide in-depth information about a particular research issue or question.

## 3.8 Quality control

### 3.8.1 Validity

Validity is the degree to which the research instrument is relevant in gathering intended data for the study (Kothari, 1990). This is measured by the Content Validity Index (CVI) and after the pretesting of the tools, the CVI was computed using the Cronbach Alpha method and the findings are reflected in table 3.2 below.

**Table 3.2: Content Validity Indices for the Questionnaire**

Variable	Description	No. of Items	Content validity index
Independent	E-fund transfer	9	.888
	Telephone banking	10	.861
	Internet Banking	10	.776
Dependent	Customer satisfaction	8	.845

*Source: Primary data (2014)*

The findings in table 2 above show that each of the items of e-fund transfer, telephone bankin, internet banking and customer satisfaction scored 0.888, 0.861, 0.776 and 0.845 respectively. These findings indicate that eact item's CVI is above 0.7 that is recommended to declare the

instrument valid for the study (Amin, 2004; Gay, 1996) and this therefore shows that the research tool that was used for the study was valid for the study.

### 3.8.2 Reliability

According to Gay (1996) reliability is the extent to which a research instrument is consistent in gathering data from different users. After the pre-test exercise, the instrument was tested for reliability and the results are reflected in table 3.3 below:

**Table 3.3: Reliability indices for the respective sections of the questionnaire**

Variable	Description	No. of Items	Cronbach alpha
Independent	E-fund transfer	10	.831
	Telephone banking	10	.767
	Internet Banking	10	.786
Dependent	Customer satisfaction	9	.767

*Source: Primary data (2014)*

The findings in table 3 indicate that items of e-fund transfer, telephone bankin, internet banking and customer satisfaction scored the Cronbach Alpha Coefficient of 0.831, 0.767, 0.786 and 0.767 respectively which is above the recommended 0.7 implying that the research tools used for the study were reliable enough to conduct the study (Amin, 2004; Gay, 1996 ).



### **3.9 Data Collection Procedures**

Using an introduction letter from UMI, the researcher obtained approval from Centenary Bank authorities to conduct the research. The researcher piloted the questionnaire on a sample of ten respondents and the interview guide on two respondents. The researcher was then used the comments from these respondents to improve the questionnaire and interview guide. The researcher was then made contact with the various authorities to which the letter was addressed and together with the authorities made appointments as to when the study was to be done at organization to meet the respondents and collect the data. The researcher ensured that during the data collection, questions were discussed in the presence of the respondents so that he is well understood; and where necessary make adjustments to reduce the chances of non-compliance and non-reliability of the tool. The data collection was carried out for a period of one week .In the event of any incompleteness of the data collecting exercise; the researcher was reschedule the appointments on consultation with the respondents. After data collection, data analysis was done a report was be made, which was mark the final activity of the research process.

### **3.9 Data Analysis**

Data analyses involved arranging, sorting and organizing data and later attach meaning to create a sensible meaning that reflects the findings Patton (1987). This study involved both quantitative and qualitative data and each was analysed in its form as shown below:

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

In analysing quantitative data, the data was sorted as per its allocated codes and entered into a statistical package known as Statistical Package for Social Scientists (SPSS) to generate both descriptive and inferential statistics that created the mean, mode and median; the variance, standard deviation, frequencies and percentages. These were arranged in tables and later explained by the

researcher on what they meant as per the set objectives and their implications in the study (Oso & Onen, 2008).

### **3.9.2 Qualitative data analysis**

Through use of content and thematic analysis, qualitative data was analysed and the findings were related to the study objectives and findings. The verbatim captions were tabulated in shorter sentences and pulling out key words that explained a certain phenomenon (Sekaran, 2003).these key words were used by the researcher to explain the occurrences that the study found out to answer the concerns that were raised in form of study objectives and answering the research questions.

### **3.10 Measurement of Variables**

The variables were measured as per the scores as pre-determined on the 5 point Likert Scale. The 5 point Likert Scale is represented by figures from 1-5 with the highest (5) representing the most desirable situation and the lowest (1) standing for the weakest point. These points (1- strongly disagree, 2-disagree, 3-not sure, 4- agree and 5-Strongly agree) were captured as per the responses.

### **3.12 Ethical considerations**

In undertaking a research project, uncertainties are reflected in the minds especially at the side of the respondents and other people involved in the study that provide information. This however calls for seeking consent from the respondents. The researcher therefore sought informed consent from the respondents, informed that that their names were not required in the study and the release of information was done in privacy to ensure their safety and confidence. In addition, the researcher informed that the study findings were meant for academic purposes and they were not

meant to be discussed with anyone else apart from the researcher and the one being interacted with a at a moment and required no coercion (Amin, 2005).

## **CHAPTER FOUR**

### **PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS**

#### **4.1 Introduction**

The analyses and interpretations of the findings of this study are reflected and presented in this chapter. These findings were sought from the information gathered from the field using both questionnaires and interview guides to study the findings arising from the field information collected from respondents to examine the relationship between electronic banking and customer satisfaction at Centenary Rural development Bank. The findings are arranged basing on the study objectives of; to establish the relationship between e-funds transfer and customer satisfaction of Centenary Bank, to examine the relationship between telephone banking and customer satisfaction

of Centenary Bank and to assess the relationship between internet banking and customer satisfaction of Centenary Bank.

#### 4.2 Response rate

**Table 4.1: The response rate**

<b>Respondents</b>	<b>Target sample</b>	<b>Accessed respondents</b>	<b>Percentage</b>
Administrative staffs	5	4	80%
Bank lower officials	92	88	95.7%
Customers	75	61	80%
<b>Total</b>	<b>172</b>	<b>153</b>	<b>89%</b>

The findings in table 4.1 above show 172 respondents were targeted to participate in the study but 153 respondents were realised to participate in the study. The balance of 19 targeted respondents never participated in the study as there was a challenge of time limit that the researcher was allocated to undertake the data collection exercise and other respondents' schedules could not allow them be part of the study. However, the study realised the response rate of 89% which is above the recommended 70% (Amin 2005). The higher percentage of 70% and above implies adequate representation of the sample hence adequate information for the study.

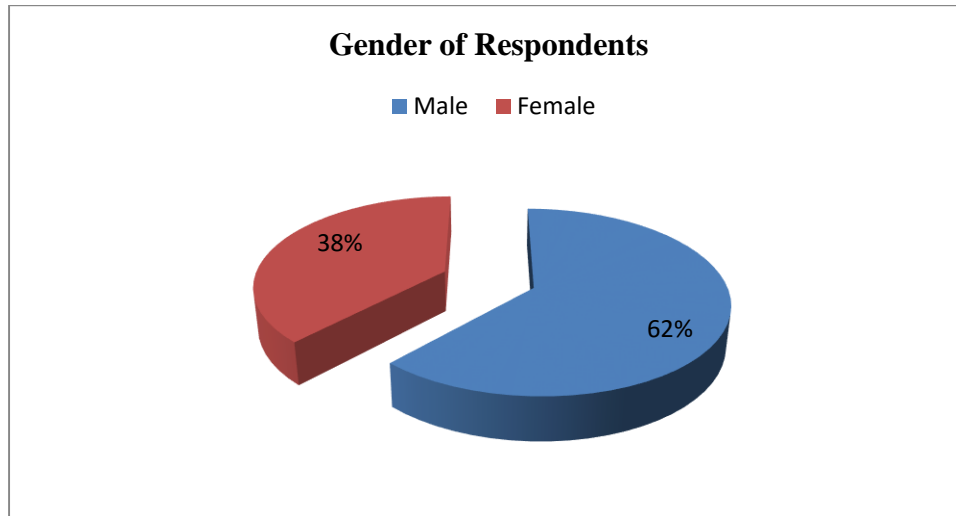
#### 4.3 Background of the Respondents

The study was interested in the background of the respondents in terms of their sex, age, education levels and duration that the respondents had spent working with Centenary bank. The data sought using questionnaires in regard to the background of the respondents is presented as below:

### 4.3.1 Sex of the respondents

The data about the sex of the respondents was captured using questionnaires and is reflected in figure 4.1 below:

**Figure 4.1: Gender of the respondents**



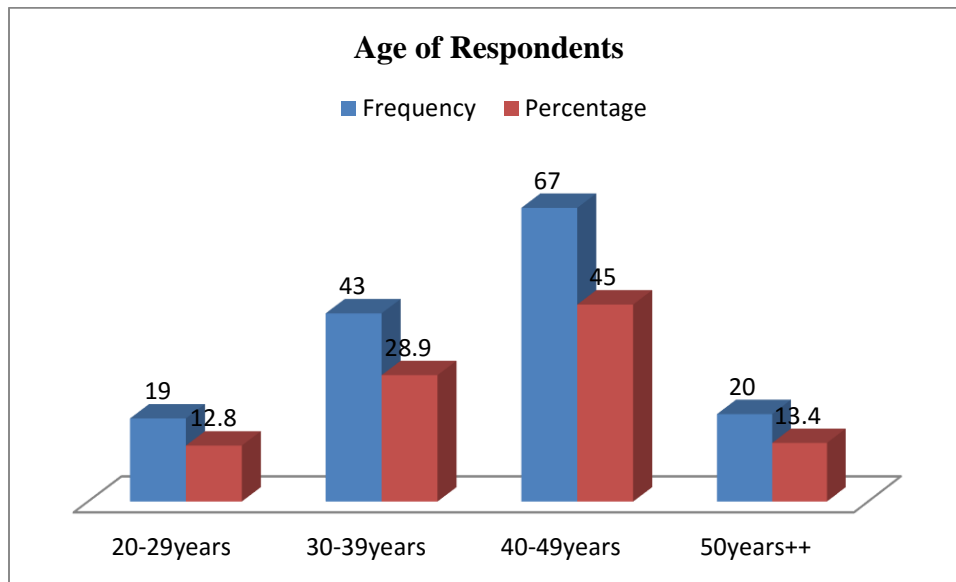
*Source: Primary Data*

The findings in figure 4.1 above indicate that majority of the respondents (62%) were males. On the other hand, females constituted 38%. However, there was at least a representation of both males and females in the study and this therefore reduces biased responses that are conditioned by one's sex. The distribution of such sex findings was as a result of staffing of Centenary Bank where males constitute majority of the employees.

### 4.3.2 Age of the Respondents

The data collected about the age of the respondents is presented in the figure below.

**Figure 4.2: Age of the respondents**



From figure 4.2, it was found out that most of the respondents in Centenary Bank that responded to the study had 40-49years and these took the highest toll of 45%. Those who were in the category of 30-39 constituted 28.9%, 50years and above had 13.4% and those who were between 20-29yrs were represented by 12.8% each. These findings indicate that when one combines those in the age bracket of 40-49 and those above 50 years, they form the majority of the respondents at 58.4%. This is an implication that the respondents from the majority of the respondents that are above 40 years are based on experience as there is a likelihood of someone above the age of 40 to be experienced in a given field. For the case of this study, the respondents approached were mature enough to base their responses based on their experience and expertise.

### **4.3.3 Education levels of the Respondents**

The study established the education levels of the respondents and the findings are presented in figure 4.3 below.

**Figure 4.3: The education levels of the respondents**

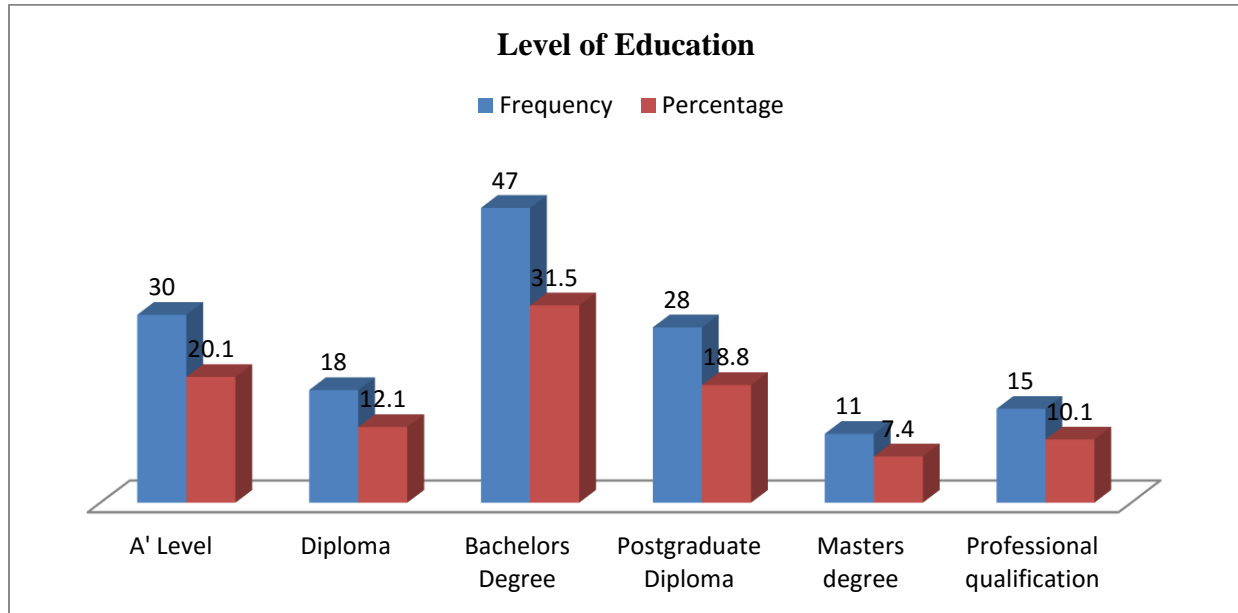


Figure 4.3 indicates that most of the respondents among Centenary Bank officials had attained a bachelors degree of education were 31.5% of the respondents. 20.1% of the respondents had A level of education, 18.8% had achieved a postgraduate diploma. 12.1% of the respondents represented post-graduate diploma holders. Those who had master’s degree of education were represented by 7.4%. For respondents who had professional qualification and these constituted 10.1%. Basing on the above findings, given the fact that the study was conducted in both much educated and less educated fellow, this completely provides balanced pictures required by the study as per the mental and cognitive capacity of the respondents.

#### **4.3.4 Time spent working with Centenary Bank**

In seeking information about the duration that the employees had spent at Centenary Bank, they were asked the time they had spent there and the findings are presented in figure 5 below:

**Figure 4.4: Time spent working with Centenary Bank**

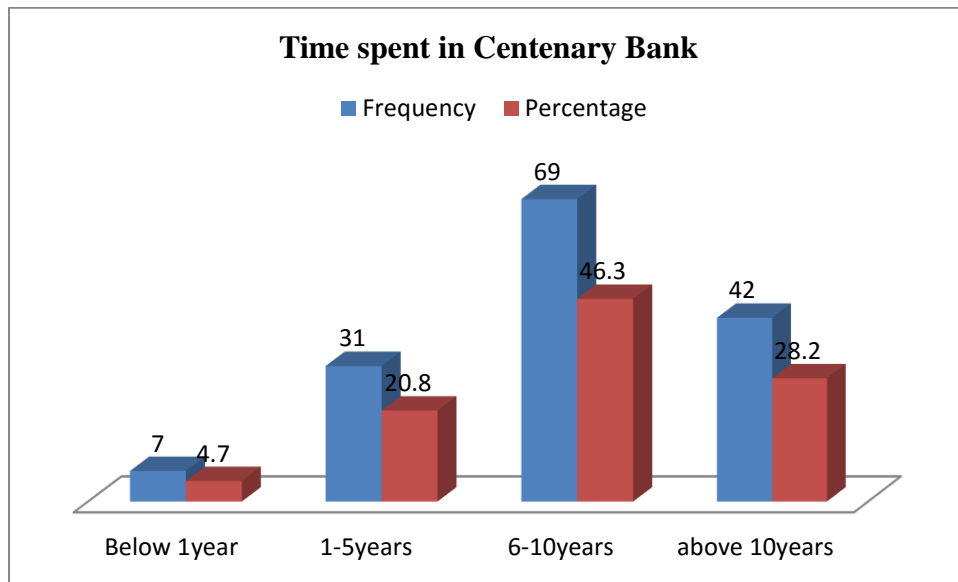


Figure 4.4 above shows that respondents that had spent 6-10 years working with Centenary bank took 46.3% of the respondents while 28.2% of the respondents had spent above 10 years. These constituted the majority of the respondents when merged and they stand at 74.5%. Others that had been in Centenary Bank for 1-5 years had 20.8% representation in the study and the last category of those who had been in Centenary Bank for less than 1 year had 4.7%. This therefore, means that the study was based on the people who had enough experience as far as electronic banking and customer satisfaction of Centenary Bank is concerned.

#### **4.4. Empirical findings**

The overall purpose of this study was to examine the relationship between electronic banking and customer satisfaction at Centenary Rural development Bank. Using the questionnaire, interview guides and documentation review checklists, the data was got from the field and the findings are presented in accordance to the study objectives and are presented as follows:



#### 4.4.1 Findings on customer satisfaction in Centenary Bank

To understand the level of perceived customer satisfaction in Centenary Bank, questionnaires were used to capture responses and the findings are presented in table 4.2 below:

**Table 4.2: Descriptive Statistics on customer satisfaction in Centenary Bank**

	Percentage responses (%)					Mean	Std. Deviation
	1	2	3	4	5		
The biggest number of Centenary Bank clients have come as a result of improved banking technology.	5.2%	11.8%	5.2%	42%	35.5%	3.73	.700
I have been banking with centenary for a relatively longer period of time	2.6%	3.9%	7.8%	59%	26.3%	4.00	.689
Centenary Bank clients are very much determined to stay banking with the bank	1.3%	1.3%	31.5%	61.8%	3.9%	4.02	.507
Centenary Bank has created a big clientele for the last five years	1.3%	1.3%	3.9%	71.8%	21.5%	4.07	.497
Centenary bank is a convenient bank	0%	0%	7.8%	50%	42.2%	4.11	.640
The bank's market share has improved for the last five years	0%	0%	2.6%	50%	47.3%	4.37	.639
A number of referrals from old clients have been witnessed in centenary bank.	0%	0%	21.5%	37%	41.3%	4.43	.666
The clientele of centenary bank has been increasing each and every year	14.4%	9.2%	36.8%	28.9%	7.8%	4.44	.467

*Source: Primary data*

#### Key

1=Strongly Disagree, 2=Disagree, 3=Not sure, 4=Agree and 5=Strongly Agree

The results in table 5 above show that the mean of all the identified concepts under customer satisfaction was above 3.5. This is based on the Likert 5 point scale scores as shown on the key of the table. This thus, statistically means that the customer satisfaction of Centenary Bank was very promising. Among the items that had means above 3.5 included; The clientele of centenary bank has been increasing each and every year (4.44); A number of referrals from old clients have been

witnessed in centenary bank (4.43); The bank's market share has improved for the last five years (4.37); Centenary bank is a convenient bank (4.11); Centenary Bank has created a big clientele for the last five years (4.07); Centenary Bank clients are very much determined to stay banking with the bank (4.02); I have been banking with centenary for a relatively longer period of time (4.00); The biggest number of Centenary Bank clients have come as a result of improved banking technology (3.73).

The above findings suggest that Centenary Bank has a number of referrals, high customer retention, positive word of mouth and customer loyalty is ranked high. These are good indicators of prevailing customer satisfaction in Centenary bank since the bank is reportedly convenient, increased market share of the bank, increasing clientele annually.

The above findings seemed synonymous with what most of the key informants indicated. For instance, a big number of key informants opined that the satisfaction of customers has been improving because the bank keeps receiving new and new clients every year. One of them was quoted saying:

*“...as any institutions like us, you expect complaints because we are not God but one thing I am certain, the number of clients in centenary bank has been increasing annually and I think this can signal customer satisfaction because getting a bank account in centenary bank you always need a referees...”* (KI-Loan Supervisor)

In addition, other key informants opinioned that because of convenience and location, most of the clients are very much satisfied with its services, it was quoted from of the key informants saying:

*“...on issue of client satisfaction, our banks tops in Uganda because by now, you can access our services in most corners in town and all over Uganda...we are conveniently located in city center and these are the foundation of satisfying client 's needs in banking...”(KI-Customer Care Manager)*

The quotations thus can be interpreted to mean that customer satisfaction at centenary bank is prevalent especially when it comes to increasing number of clients, positive word of mouth, referrals and the location of the bank that makes it accessible to its clients.

#### **4.4.2 Findings on adoption of E-funds transfer services in Centenary Bank**

To understand the pervalence of E-funds money transfer in Centenary Bank, the responses were sought using questionnaires and intreview guides and are reflected in table 4.3 below. In table 4.3, the prevalence of E-funds transfer services in Centenary Bank were categorized according to their percentages, means and standard deviation as follows.

**Table 4.3: Descriptive Statistics on prevalence of E-Funds transfer in Centenary Bank**

Items	1	2	3	4	5	Mean	Std Deviation
I.T Security at Centenary Bank is not comprised by E-funds transfer	1.3%	1.3%	3.9%	61.8%	31.5%	4.03	1.604
Centenary Bank has e-cheque services available to all customers in this branch	0%	3.9%	9.2%	61.8%	25%	4.09	1.282
Centenary Bank has both credit and debit cards for its clients	3.9%	2.6%	6.5%	53.9%	34.2%	4.11	1.195
Inter-banking technology of Inter-switch is very efficient, effective and convenient to all customers.	5.2%	5.2%	11.8%	42%	35.5%	4.18	1.506
Cashless banking is part of the arrangements in Centenary Bank	2.6%	3.9%	7.8%	59%	26.3%	4.21	.926
Centenary Bank has an arrangement of swapping money from one account to the other	0%	0%	2.6%	47.3%	50%	4.25	.886
Cases of bank fraud have reduced as a result of introduction of technology.	9%	6%	10.5%	45%	28.5%	4.30	1.165
Centenary Bank ATMs are always working 24hrs	0%	10.5%	25.5%	36%	27%	4.31	.756
Centenary Bank has enough ATMs that can serve all clients	3%	3%	22.5%	40.5%	30%	4.37	1.309

Source: Primary data

### Key

1=Strongly Disagree, 2=Disagree, 3=Not sure, 4=Agree and 5=Strongly Agree

From table 4.3 above, the mean of all the concepts identified is above 3.5. Statistically, this is an implication that Centenary Bank had E-Funds transfer services. The items that confirmed the above statistical claim included; Centenary Bank has enough ATMs that can serve all clients (4.37); Centenary Bank ATMs are always working 24hrs (4:31); Cases of bank fraud have reduced as a result of introduction of technology (4.30); Centenary Bank has an arrangement of swapping money from one account to the other (4.25); Cashless banking is part of the arrangements in

Centenary Bank (4.21); Inter-banking technology of Inter-switch is very efficient, effective and convenient to all customers (4.18); Centenary Bank has both credit and debit cards for its clients (4.11); Centenary Bank has e-cheque services available to all customers in this branch (4.09); I.T Security at Centenary Bank is not comprised by E-funds transfer (4.03).

The above statements implied that Centenary Bank has credit card system for its clients which has made it easy for a person to borrow and return money in time. The Bank's ATMs are always working 24hrs and these have made it easy for the bank to increase on deposits made in the bank; Centenary Bank has an arrangement of swapping money from one account to the other which has increased on cash available in the bank and this is financially called liquidity. It can also be deduced that Centenary Bank has enough ATMs that can serve all clients and these have reduced on our operating costs. Issues to do with bank fraud were reported to have reduced as a result of ATM; and by adopting the E-funds transfer, the security of the bank is not compromised but has increased on number of clients. Still, it was found out that by adopting e-cheque services, the bank has increased on its liquidity levels and Centenary Bank has debit cards for its clients which have increased on the number of clients joining Centenary Bank.

From the interviews conducted, it was indicated by 79.2% of the interviewees that E-fund transfer services had improved on customer satisfaction of the bank. They opinioned that credit card system adopted by the bank has increased on number of loans given out and due to E-fund transfer, ATMs can now operate for 24hrs which has increased on despot and withdrawals at all the time and this means income for the bank. 74% of the interviewees informed that E-fund transfer has led to easy swapping money from one account to the other which has increased on cash available in the bank and this is financially called liquidity. One of bank manager was quoted saying;

*“This is a global wave that cannot be avoided...in fact as an administrator we call E-Fund transfer a form of technical efficiency which has made it easy for client to receive money or send money at their own convince and this has not only made it convenient for the bank but however, it has increased business outputs...”* (KI-Bank Manager)

The above findings seemed to tally exactly with the documents reviewed. For instance, Bank of Uganda annual report (2013) reports that E-fund money transfer has change business environment and banking industry in Uganda. It urged commercial banks to ensure that it is propagated very well since it is a form of advancement but also improves customer satisfaction of a financial institution.

#### **4.4.2.1. Correlation results for E-Funds transfer and customer satisfaction**

The first hypothesis stated, “There is a significant relationship between E-funds transfer banking and customer satisfaction of Centenary Bank.” Spearman correlation coefficient (r) was used to test the hypothesis. Table 7 presents the test results.

**Table 4.4: Correlation results**

			E-funds transfer banking	Customer satisfaction
Spearman's rho	E-funds transfer banking	Correlation Coefficient	1.000	.669**
		Sig. (2-tailed)	.	.022
		N	149	149
	Customer satisfaction	Correlation Coefficient	.669**	1.000
		Sig. (2-tailed)	.022	.
		N	149	149

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Findings show that there was a significant positive correlation ( $\rho = .669$ ) between E-funds transfer services and customer satisfaction. These findings were subjected to a test of significance ( $p$ ) and it is shown that the significance of the correlation ( $p = .022$ ) is less than the recommended critical significance at 0.05. Thus, the relationship was significant. Because of this, the hypothesis “*There is a significant relationship between E-funds transfer banking and customer satisfaction of Stanbic bank Uganda.*” was accepted. Thus, the implication of the findings was that E-funds transfer banking has a positive relationship with customer satisfaction of Centenary Bank. The positive influence implies that a change in E-funds transfer banking relates to a significant change in customer satisfaction of Centenary Bank. The positive nature of the correlation implied that E-funds transfer banking must be ensured if customer satisfaction of Centenary Bank is to be achieved.

#### 4.4.2.2. Regression results for E-Funds transfer and customer satisfaction

A further analysis was conducted using a regression to determine the relationship of E-funds transfer banking services on customer satisfaction in Centenary Bank. Findings are presented in Table 4.5, accompanied by analysis and interpretation.

**Table 4.5: Model summary**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.102	.170		6.467	.000
	E-funds transfer	.306	.054	.500	5.693	.000
<b>Dependent variable: customer satisfaction</b>						
	R square	.522 <sup>a</sup>			F-statistics	33.098
	Adjusted R Square	.415			Sig.	0.01

Findings in Table 4.5 show a strong linear relationship (Multiple R = .522) between e-funds transfer and customer satisfaction of Centenary Bank. The adjusted R Square shows that e-funds transfer services account for 41.5% change in customer satisfaction of Centenary Bank. These findings were subjected to an ANOVA test, which showed that the significance (Sig F = .001) of the Fishers ratio (F = 33.098) was greater than the critical significance at .05. Hence, the findings were accepted. Interview findings supported the findings obtained from questionnaires.

#### 4.4.3.2 Findings on adoption of Telephone Banking in Centenary Bank

To examine the relationship between telephone banking and customer satisfaction of Centenary Bank, questionnaires and interview guides were used and the responses were sought and presented as follows.

**Table 4.6: Descriptive Statistics on telephone banking in Centenary Bank**

Items	1	2	3	4	5	Mean	Std Deviation
A customer can easily know every kind of information he/she needs by merely calling in the bank especially if he/she has the bank codes	17.1%	9.2%	34.2%	26.3%	21%	2.58	1.021
Wireless banking has increased in Centenary Bank financial services	25%	22.3%	26.3%	23.6%	6.5%	3.09	1.181
Centenary Bank is installed on with a computers information system that help the tellers in their work	11.8%	13%	5.2%	47.3%	22.3%	3.54	.700
The bank provides information update about the bank through SMS	13%	7.8%	13%	38%	27.6%	3.55	.689
A customer can now easily check his/her bank account using his/her phone	7.8%	22.3%	2.6%	42%	25%	3.55	.507
A customer can now withdraw his/her finances using his/her phone from the bank	15.7%	10.5%	0%	51.3%	22.3%	3.55	.497
Interactive Voice Response is part of the banking services in Centenary Bank	5.2%	21%	3.9%	35.5%	26.3%	3.58	.578
Centenary Bank has in place mobile banking for distant and busy customers	14.4%	6.5%	11.8%	34.2%	30.2%	3.64	.493
Centenary Bank has smart card systems in place	7.8%	14.4%	9.2%	28.9%	36.8%	4.58	.467
Tele-banking in Centenary Bank allows customers to pay all their monthly bills	0%	3.9%	5.2%	40.7%	50%	4.59	4.18
With Centenary Bank, a customer can now bank his money using a cell-phone at home	3.6%	4.8%	13.3%	32.4%	48%	4.63	.823

Source: Primary data



## **Key**

1=Strongly Disagree, 2=Disagree, 3=Not sure, 4=Agree and 5=Strongly Agree

The results in table 9 below revealed that the means for most of the items were above 3.5. It was found out that out of the 10-items that were introduced to respondents, 8-items were indicated with a data mean above 3.5 and 2-items had data means below 3.5. Based on the scale of 1-strongly disagree to 5-strongly agree, any data mean of above 3.5 indicates existence of the variables under study. This thus, statistically means that telephone banking so far incorporated in Centenary Bank. Among the items that had means above 3.5 included; Ce With Centenary Bank, a customer can now bank his money using a cell-phone at home (4.63); Tele-banking in Centenary Bank allows customers to pay all their monthly bills (4.59); Centenary Bank has smart card systems in place (4.58); Centenary Bank has in place mobile banking for distant and busy customers (3.64); Interactive Voice Response is part of the banking services in Centenary Bank (3.58); A customer can now withdraw his/her finances using his/her phone from the bank (3.55); A customer can now easily check his/her bank account using his/her phone (3.55); The bank provides information update about the bank through SMS (3.55); Centenary Bank is installed on with a computers information system that help the tellers in their work (3.54).

The above responses thus means that Centenary Bank has adopted electronic banking for distant and busy customers; the bank has introduced Tele-banking in Centenary Bank which allows customers to pay all their monthly bills using a phone; Centenary Bank installed on with a computers information system that help the tellers in their work; With Centenary Bank, a customer can now bank his money using a cell-phone at home which has increased on bank's liquidity;

Centenary Bank has smart card systems in place which has expanded bank's assets. Add on the reportage that; A customer can now withdraw his/her finances using his/her phone from the bank and this has increased on bank's net interest margin; A customer can easily know every kind of information he/she needs by merely calling in the bank especially if he/she has the bank codes; The bank provides information update about the bank through SMS and this has stimulated more savings and a customer can now easily check his/her bank account using his/her phone which has increased on bank safety. These are all indicators of prevalence of telephone banking in Centenary Bank.

However, on the other hand, some of the respondents indicated that telephone banking has not ably improved on customer satisfaction of Centenary Bank. For instance, some of the items that confirm such a claim included; Wireless banking has increased in Centenary Bank financial services (3.09); A customer can easily know every kind of information he/she needs by merely calling in the bank especially if he/she has the bank codes (2.58). This implies that Wireless banking has not yet increased in Centenary Bank financial services which would help it to serve so many customers in a day. If therefore, telephone banking to be realized in its fullest and make financial impact to the bank, there is a need to ensure that wireless banking is prioritized and all feeds are working to give any information required by clients.

The views from the key informants continually supported the above position, where 66% of the interviewees admitted that telephone banking had been adopted by Centenary Bank and it had so far been able to improve customer satisfaction of the bank. In essence, the biggest portion of interviewees looked at telephone banking is undergoing and having improved on customer satisfaction positively. This is because 64% of the key informants showed that telephone banking

has enhanced on distant and busy customers which has improved on net interest margin. 56% of the interviewees further noted that it is now easy to pay all monthly bills using a phone and this improved on saving made with Centenary Bank. One of Customer Managers was quoted:

*“By now it is easy to reach out to a customer in case of any problem because they can easily be reached on their phones. People have their accounts in their hands and they can do most of the banking services they need within minutes and this has increased on bank revenue...”* (KI-Customer Manager)

46% of the interviewees still in congruence indicated that Centenary Bank has smart card systems in place which has expanded bank’s assets. 42% said that a customer can now withdraw his/her finances using his/her phone from the bank and this has increased on bank’s net interest margin.

#### **4.4.3.1 Correlation results on Telephone Banking and Customer Satisfaction**

To test if telephone banking affects customer satisfaction in Centenary Bank, a spearman rho correlation coefficient was done by the study and the results are shown in Table 9 below. To verify this hypothesis, a hypothesis was derived that *“There is a significant relationship between telephone banking and customer satisfaction of Centenary Bank Uganda”*

**Table 4.7: Correlation results**

			Telephone banking	Customer satisfaction
Spearman's rho	Telephone banking	Correlation Coefficient	1.000	.544**
		Sig. (2-tailed)	.	.039
		N	149	149
	Customer satisfaction	Correlation Coefficient	.544**	1.000
		Sig. (2-tailed)	.039	.
		N	149	149

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Findings show that there was a significant positive correlation ( $\rho = .544$ ) between telephone banking and customer satisfaction at Centenary Bank. Thus, findings show that telephone banking accounted for 29.5% change in customer satisfaction. These findings were subjected to a test of significance (p) and it is shown that the significance of the correlation ( $p = .039$ ) is less than the recommended critical significance at 0.05. Thus, the relationship was significant. Because of this, the hypothesis “Telephone banking has a positive relationship with customer satisfaction of Centenary Bank” was accepted. The implication of these findings is that there exists a positive influence between telephone banking and customer satisfaction of Centenary Bank. The significant influence implied that a change in telephone banking contributed to a significant change in customer satisfaction of Centenary Bank. The positive nature of the influence implied that the change in telephone banking was in the opposite direction with customer satisfaction whereby addressing telephone banking can contribute to high customer satisfaction and vice versa.

#### 4.4.3.2. Regression results for telephone banking and the customer satisfaction

Further analysis was conducted using a regression to determine the extent to which telephone banking affect customer satisfaction of Centenary Bank. Findings are presented in Table 4.8, accompanied with an analysis and interpretation.

**Table 4.8: Model summary**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.181	.347		3.401	.001
	Telephone banking	.669	.086	.315	3.263	.002
<b>Dependent variable: customer satisfaction</b>						
	R square	.356 <sup>a</sup>			F-statistics	125.666
	Adjusted R Square	.290			Sig.	0.01

Findings in Table 4.8 show a strong linear relationship (Multiple R = .656) between telephone banking and customer satisfaction of Centenary Bank. Going by the adjusted R Square, it is shown that telephone banking account for 29% change in customer satisfaction of Centenary Bank. These findings were subjected to an ANOVA test, which showed that the significance (Sig F = .001) of the Fishers ratio (F = 125.666) was less than the critical significance at .05. Hence, the findings were accepted.

#### 4.4.4 Findings on adoption of Internet banking in Centenary Bank

To understand whether Centenary Bank had adopted internet banking, responses from respondents were captured using questionnaire and interview guides and are presented as follows:

**Table 4.9: Descriptive Statistics on adoption of internet banking in Centenary Bank**

Items	1	2	3	4	5	mean	Std Deviation
The bank provides information update about the bank through email alerts to its customers	10.5%	14.4%	30.2%	26.3%	18.4%	3.28	1.331
The bank's website is operational 24hrs a day	7.8%	17.1%	28.9%	27.6%	18.4%	3.33	1.141
Customer can now print their account statement online	10.5%	13%	31.5%	22.3%	22.3%	3.42	1.133
Centenary Bank Allows intra-Banks Account to Account Transfer using internet	13%	15.7%	3.9%	39.4%	19.7%	3.54	1.107
Centenary Bank also allows to download account transactions using your email	9.2%	10.5%	11.8%	43.4%	25%	3.57	.588
Our internet banking is free from security risks	21%	21%	6.5%	38%	13%	3.70	.506
I have heard no account compromised in Centenary Bank through internet	6.5%	6.5%	7.8%	50%	28.9%	4.01	.483
All bank services can be accessed online	3.9%	3.9%	7.8%	52.6%	31.5%	4.12	.464
There are no problems in networks regarding internet banking	2.6%	2.6%	6.5%	53.9%	34.2%	4.14	.433
It is easy to make third party payments and others bills online in Centenary Bank	0%	5.2%	16.6%	44%	33.1%	4.22	.476

*Source: Primary data*

Key

1=Strongly Disagree, 2=Disagree, 3=Not sure, 4=Agree and 5=Strongly Agree

The results in table 4.9 above revealed that the means for most of the items were above 3.5. It was found out that out of the 12-items that were introduced to respondents, 7-items were indicated with a data mean above 3.5 and 3-items had data means below 3.5. Based on the scale of 1-strongly disagree to 5-strongly agree, any data mean of above 3.5 indicates existence of the variables

understudy. This thus, statistically means that internet banking had been adopted by Centenary Bank. Among the items that had means above 3.5 included; It is easy to make third party payments and others bills online in Centenary Bank (4.22); There are no problems in networks regarding internet banking (4.14); All bank services can be accessed online (4.12); I have heard no account compromised in Centenary Bank through internet (4.01); Our internet banking is free from security risks (3.70); Centenary Bank also allows to download account transactions using your email (3.57); Centenary Bank Allows intra-Banks Account to Account Transfer using internet (3.54).

This thus implies that Centenary Bank has an active website operating 24hrs a day which has reduced on default levels in Centenary Bank; The bank provides information update about the bank through email alerts to its customers and this has stimulated a lot of trust people have in Centenary Bank; Customer can now print their account statement online which has improved on bank efficiency; I have heard no account compromised in Centenary Bank through internet; Our internet banking is free from security risks and this reduces on fraud involved in banking services; Centenary Bank Allows intra-Banks Account to Account Transfer using internet and this has increased on bank cash and Centenary Bank also allows to download account transactions using your email. All these signify a positive relationship between internet banking and customer satisfaction.

On the other hand, some of the items were indicated with means below 3.5 which meant that internet banking has not favourably improved on customer satisfaction of Centenary Bank. Among these items included: Customer can now print their account statement online (3.42); The bank's website is operational 24hrs a day (3.33); The bank provides information update about the bank

through email alerts to its customers (3.28). This thus means that there are problems in networks regarding internet banking. This means that there is a problem of bad networks and lack of money internet to use this trend. Another thing that derails internet banking is because some of the activities cannot be fully completed on internet yet in Centenary Bank like paying for third party payments and others bills online in Centenary Bank.

The findings from the interviewees seemed congruent to what most of the respondents in the questionnaire had indicated. 88% of the interviewees agreed with the view that internet banking had a positive relationship on customer satisfaction in Centenary Bank but 79% of them raised issues to do with ignorance, price and networks. These people opinioned that internet banking has not yet led to real customer satisfaction since few people are aware of it and not all those who are aware cannot afford the price of the internet. In addition, some of those who can afford are disturbed by networks. In confirmation, one of the bank supervisors said:

*“Internet banking is still a new thing in most eyes of our clients because it calls for basic knowledge of using a computer or internet and since our target population is both formal and informal, some of them are left trailing but so far, the few clients that have been enrolled on this system have had much benefits and have made bank’s work efficiency and effective ...”* (KI-Bank Supervisor)

The views from the interviewees seemed to tally with what the documents reviewed indicated. They showed that internet banking is still a new thing in less developed countries including Uganda and its commercial banks and has not had so much improvement on customer satisfaction.



#### 4.4.4.1 Correlation results on internet banking and customer satisfaction of Centenary Bank

To test if internet banking had an influence on customer satisfaction of Centenary Bank, a spearman rho correlation coefficient was done by the study and the results are shown in Table 4.10 below. To verify this hypothesis, a hypothesis was derived that “*There is a significant relationship between internet banking and customer satisfaction of Centenary Bank*”

**Table 4.10: Correlation results**

			Internet banking	Customer satisfaction
Spearman's rho	Internet banking	Correlation Coefficient	1.000	.276
		Sig. (2-tailed)	.	.041
		N	149	149
	Customer satisfaction	Correlation Coefficient	.276	1.000
		Sig. (2-tailed)	.041	.
		N	149	149

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Findings show that there was a moderate positive correlation ( $rho = .276$ ) between internet banking and customer satisfaction. These findings were subjected to a test of significance ( $p$ ) and it is shown that the significance of the correlation ( $p = .041$ ) is less than the recommended critical significance at 0.05. Thus, the relationship was significant. Because of this, the hypothesis “*There is a significant relationship between internet banking and customer satisfaction of Centenary Bank*” was accepted. The implication of these findings is that internet banking has a positive relationship with customer satisfaction of Centenary Bank. The positive relationship implied that a change in internet banking can contribute to customer satisfaction of Centenary Bank. The positive nature of the relationship implied that managers in Centenary Bank needs to ensure that

internet banking is fully installed and implemented if customer satisfaction of Centenary Bank is to improve and vice versa.

#### 4.4.4.2 Regression results for internet banking and the customer satisfaction of Centenary Bank

Further analysis was conducted using a regression to determine the influence of internet banking on customer satisfaction of Centenary Bank. Findings are presented in Table 13, accompanied with an analysis and interpretation.

**Table 4.11: Model summary**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.073	1.134		-.064	.949
	Internet banking	.172	.255	.259	2.638	.010
<b>Dependent variable: customer satisfaction</b>						
	R square	.188 <sup>a</sup>			F-statistics	16.958
	Adjusted R Square	.167			Sig.	0.001

*Source: Primary data*

Findings in Table 14 show a moderate linear relationship (Multiple R = .188) between internet banking and customer satisfaction of Centenary Bank. Going by the adjusted R Square, it is shown that internet banking account for 16.7% change in customer satisfaction of Centenary Bank. These findings were subjected to an ANOVA test, which showed that the significance (Sig F = .001) of the Fishers ratio (F = 16.958) was greater than the critical significance at .05. Hence, the findings were accepted.

## CHAPTER FIVE

### SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the summaries of the findings, discussions of objectives set for the study, conclusions derived from the findings, and the recommendations that will help in improving customer satisfaction at Centenary Bank based on the findings of the study. Limitations, contributions of the study and areas of further study are also suggested.

#### 5.2 Summary

**The study established a number of findings, the summary of the findings are outlined here under;**

The study was based on three electronic banking attributes which included E-fund transfer, telephone banking and internet banking and the results indicated that, Centenary Bank undertakes the two attributes (E-fund transfer and telephone banking) but still lacks in internet banking as part of its customer satisfaction. The study established that the influence of electronic banking on customer satisfaction in Centenary Bank was adequately strong, positive and significant.

##### 5.2.1 The relationship between e-funds transfer and customer satisfaction in Centenary Bank

The hypothesis that there is a significant relationship between E-funds transfer banking and customer satisfaction of Centenary Bank was tested and accepted. This was because of the favorable results from Pearson correlations which indicated that the Pearson Correlation Coefficient value is 0.669, in respect to the hypothesis and statistically significant at .022 which is less than 0.05 (level of significance). This implied that, there is a statistically positive and significant influence among the means.

### **5.2.2 The relationship between telephone banking and customer satisfaction in Centenary Bank**

The hypothesis that there is a significant relationship between telephone banking and customer satisfaction of Centenary Bank was tested and accepted. This was because of the favorable results from Pearson correlations which indicated that the Pearson Correlation Coefficient value is 0.544, in respect to the hypothesis and statistically significant at .039 which is less than 0.05 (level of significance). This implied that, there is a statistically positive and significant influence among the means

### **5.2.3 The relationship between internet banking and customer satisfaction in Centenary Bank**

The hypothesis that internet banking has a positive relationship with customer satisfaction in Centenary Bank was tested and accepted. This was because of the favorable results from Pearson correlations which indicated that the Pearson Correlation Coefficient value is 0.276, in respect to the hypothesis and statistically significant at .041 which is less than 0.05 (level of significance). This implied that, there is a statistically positive and significant influence among the means

## **5.3 Discussion of the study findings**

The discussion of the study findings has been made as per the study objectives below;

### **5.3.1 The relationship between E-Funds transfer banking and the customer satisfaction in Centenary Bank**

The first hypothesis stated, “There is a significant relationship between E-funds transfer banking and customer satisfaction in Centenary Bank.” The inferential statistics indicated that E-funds transfer banking has a positive relationship with customer satisfaction of Centenary Bank. This

finding is in agreement with Morris-Cotterill (2002) who indicated that ATMs have extended banking services to the remote areas depositing and withdrawal of funds can be carried out in rural areas in Ghana (Morris-Cotterill, 2002). This has enabled loading and unloading of cash in small communities or in widespread communities where people gather, however real cash ATMs for general use and deposit would require more servicing and more security (Morris-Cotterill, 2002). Cracknell (2004) further agrees with the study findings where in his opinion, Malawi Central Bank established a smart card infrastructure with biometric enabled ATMs with an aim of reducing insecurity with in the banking industry, with the use of such developments on the ATMs, withdrawal and depositing of cash is now done safely thus yielding positive results. According to the Glossary of Terms used in Payment Settlement Systems as reported by Anguelovet, et al., (2004) e-funds transfer is defined as the movement of money or credits from one account to another through an electronic medium. According to a Survey of Consumer finances (2001) as reported by Anguelov (2004) still concurs with the findings that e-funds transfer has features such as direct deposit, an ATM or debit card among the rest. In this study e-funds transfer technology means the availability, accessibility and usage of ATM cards, debit cards, credit cards and e-cheques with reference to cash deposit, cash withdrawal and account balance inquiry.

Gourlay and Pentecost (2005) in support of the findings still, explain that funds are transferred electronically using ATMs to provide retail banking services allowing 24, hours a day cash withdrawal, balance verification and bill payment at branches and remote locations away from branches. ATMs in the UK are seen as a substitute capital for labor particularly in routine human teller operations. Transaction costs associated with need to withdraw cash expectantly are lowered, (Ingham and Thompson, 1993; Humphrey, 1994; Haynes and Thompson, 2000 as reported by (Gourlay and Pentecost, 2005).ATMs are widely used in transfer of cash. They are mainly located

at shopping stations to help customers in carrying out shopping easily (Organization for Economic Corporation and Development, 2003) [62]. For example in Japan, Ito-Yokado Stores is planned to provide banking services through its stores. It is worth noting that electronic transactions can be carried out using e-cheques and e-cash for large amounts of money. There are positive results noted in the use of e-funds transfer with increased use of ATMs and e-cards. According to the Australian Bankers Association (2002) as reported by Arch and Burmeister (2003), in Australia emphasis is placed on e-banking technologies.

### **5.3.2 The relationship between telephone banking and customer satisfaction in Centenary Bank**

The second hypothesis stated, “There is a significant relationship between banking and customer satisfaction in Centenary Bank.” The inferential statistics indicated that telephone banking has a positive relationship on the customer satisfaction of Stanbic bank Uganda. These findings confirmed the works of Ovia (2001) who had earlier indicated that telephone banking is a facility that enables customers, via telephone calls, find out about their position, with their bankers merely dialing the telephone numbers given to them by the banks. Amedu (2005) indicates that because of improving customer satisfaction, worldwide, banks have started to adopt telephone banking. The physical carriage of cash as well as the visit to the bank branches is being reduced by the introduction of an electronic device, ATM. An ATM device allows a bank customer to withdraw cash from his account via a cash dispenser (Machine), and the account is debited immediately. A fundamental advantage is that it needs not to be located within the banking premises. It is usually in stores, shopping malls, fuel stations etc (Johnson, 2005).

Bohmet al (2000) further asserts that some banks have always accepted instructions by telephone from trusted customers well known to them, as part of their ordinary branch banking service. Telephone banking requires a customer and bank to agree at the outset of the relationship a small category of 'security information' to be used to verify the customer's authority to give telephone instructions and usually include a password chosen by the customer (Bohmet al, 2000). Bohmetal(2000) contrarily takes telephone banking as a service, which the customer can use to give instructions and get information by speaking to bank staff by telephone. In respect to this research telephone banking technology means availability, accessibility and usage of telephones (wired or wireless telephones) to engage in cash deposit, withdrawal and account balance inquiry by users in the banking industry. Al Ashban and Burney (2001) studied Customer Adoption of Tele-banking Technology in Saudi Arabia and found that customers increasingly extend their use of tele-banking as their experience grows with the system and that education played a vital role in the adoption and usage of telebanking technology.

### **5.3.3 The relationship between internet banking and customer satisfaction in Centenary Bank**

The third hypothesis stated, "There is a significant relationship between internet banking and customer satisfaction in Centenary Bank." The inferential statistics indicated that Internet banking has a positive relationship with customer satisfaction of Centenary Bank. The study findings were contrary to what earlier scholars had indicated that online banking offers a higher level of convenience for managing one's finances even from one's bedroom (Nathet al, 2001). However, it continues to present challenges to the financial security and personal privacy. Many people have had their account details compromised, as a result of online banking. Thus, if one is going to use it for financial transactions, he should be aware of the risks involved. Awareness of the risks and

problems enables him to take precautions for a more secured online banking experience (Ayadi, 2003). Hutchinson and Warren (2003) further argue that the brick and mortar banks have customer care representatives who are easier to talk to, but in case of online banking, in which the banks provide customer care numbers, the bankers find it difficult to get their problems solved. Sometimes there is congestion in the network and they have to wait for some time, in order to talk to the bank's representative at the other end. Once the line is put through, one may either get somebody helpful and knowledgeable or may not, leaving him in a baffled and confused situation. Ayadi (2003) incongruently believed that access to electronic means of payment and the high number of customers connected to the Internet has changed the perception of banks toward market and increased the development of Internet Banking. Hutchinson and Warren (2003) argue that Internet banking requires a sound security procedure that involves designing effective methods via which users can be authenticated in a remote environment such that transactions being conducted are secured within their respective environments. Internet banking technology has made remarkable changes in the banking industry, which include: cost reduction due to electronic processing carried out on the Internet.

Ezeoha (2005) studied Regulating Internet Banking in Nigeria and noted that there are security concerns in Internet banking where fraud has become a daily business to some individuals; Internet banking has remained insignificant due to fraud and forgery, e-banking services are offered in Naira only and that in Nigeria Internet banking may take a long time to fully become one of the economic relevance in the country banking practice because of fraud which has made it complex hence causing few customers to transact their businesses through the Internet. Coupled to that is



that the development of bank websites does not go beyond information purposes. Poor government measures have also affected the right environment for Internet banking (Ezeoha, 2005).

## **5.4 Conclusions**

### **5.4.1 The relationship between E-funds transfer banking and customer satisfaction in Centenary Bank**

It was established that Centenary Bank has credit card system for its clients which has made it easy for a person to borrow and return money in time. The Bank's ATMs are always working 24hrs and these have made it easy for the bank to increase on deposits made in the bank; Centenary Bank has an arrangement of swapping money from one account to the other which has increased on cash available in the bank and this is financially called liquidity. It can also be deduced that Centenary Bank has enough ATMs that can serve all clients and these have reduced on our operating costs. Issues to do with bank fraud were reported to have reduced as a result of ATM; and by adopting the E-funds transfer, the security of the bank is not compromised but has increased on number of clients. Still, it was found out that by adopting e-cheque services, the bank has increased on its liquidity levels and Centenary Bank has debit cards for its clients which have increased on the number of clients joining Centenary Bank. Thus, the implication of the findings was that E-funds transfer banking has a positive relationship with customer satisfaction of Centenary Bank. The positive influence implies that a change in E-funds transfer banking relates to a significant change in customer satisfaction of Centenary Bank. The positive nature of the correlation implied that E-funds transfer banking must be ensured if customer satisfaction of Centenary Bank is to be achieved.

#### **5.4.2 The relationship between telephone banking and customer satisfaction in Centenary Bank**

The study findings indicated that Centenary Bank has adopted electronic banking for distant and busy customers; the bank has introduced Tele-banking in Centenary Bank which allows customers to pay all their monthly bills using a phone; Centenary Bank installed on with a computers information system that help the tellers in their work; With Centenary Bank, a customer can now bank his money using a cell-phone at home which has increased on bank's liquidity; Centenary Bank has smart card systems in place which has expanded bank's assets. Add on the reportage that; A customer can now withdraw his/her finances using his/her phone from the bank and this has increased on bank's net interest margin; A customer can easily know every kind of information he/she needs by merely calling in the bank especially if he/she has the bank codes; The bank provides information update about the bank through SMS and this has stimulated more savings and a customer can now easily check his/her bank account using his/her phone which has increased on bank safety. These are all indicators of prevalence of telephone banking in Centenary Bank. The implication of these findings is that there exists a positive influence between telephone banking and customer satisfaction of Centenary Bank. The significant influence implied that a change in telephone banking contributed to a significant change in customer satisfaction of Centenary Bank.

#### **5.4.3 The relationship between internet banking and customer satisfaction in Centenary Bank**

Basing on study findings, it was concluded that Centenary Bank has an active website operating 24hrs a day which has reduced on default levels in Centenary Bank; The bank provides information update about the bank through email alerts to its customers and this has stimulated a lot of trust

people have in Centenary Bank; Customer can now print their account statement online which has improved on bank efficiency; I have heard no account compromised in Centenary Bank through internet; Our internet banking is free from security risks and this reduces on fraud involved in banking services; Centenary Bank Allows intra-Banks Account to Account Transfer using internet and this has increased on bank cash and Centenary Bank also allows to download account transactions using your email. All these signify a positive relationship between internet banking and customer satisfaction. The implication of these findings is that internet banking has a positive relationship with customer satisfaction of Centenary Bank. The positive relationship implied that a change in internet banking can contribute to customer satisfaction of Centenary Bank.

## **5.5 Recommendations**

In light of the above conclusions, below are the suggested recommendations as each study objective;

### **5.5.1 The relationship between E-funds transfer banking and customer satisfaction in Centenary Bank**

Trust building among the customers should be a major concern for Centenary Bank while improving the usefulness of the system. In order to enhance trust in internet banking, trust-creating activities must be continuously pursued. Centenary Bank managers should develop a system that provides up to date and relevant financial information with good user interface consistency in order to enhance trust. To counter the legal threat and security posed to net banking and e-commerce, the necessary legal codes backing the industry must be established; this will enhance the growth of the industry.

### **5.5.2 The relationship between telephone banking and customer satisfaction in Centenary Bank**

Centenary Bank should ensure security and privacy. Security features should be considered an important issue by the bank because internet banking users are more favourably inclined toward using it when they perceive that the information provided during the banking transactions is secure, and third parties will not have access to it. Centenary Bank managers should monitor and evaluate the usage of the implemented technologies. This can be done by identifying the number of customers using a given technology and how often it is used, with such a measure in place. Information Technology bank managers should therefore get feedback on which technology that should be improved and then later plan for their business without wastage of resources.

### **5.5.3 The relationship between internet banking and customer satisfaction in Centenary Bank**

Creating awareness of internet banking to the public through massive advertisement on radios, televisions and newspapers. Changing consumer attitudes towards internet banking should be put into consideration. Bank managers should place more emphasis on the awareness of Internet banking adoption while educating individual customers on its existence and benefits. User awareness of Internet banking services can be increased through putting in place community based workshops and through various social networks and channels, such as word of mouth and informal seminars before introduction of new technology. Centenary Bank should make the internet banking interface for the customer more attractive and easier to navigate in order to increase the adoption rate of internet banking.

## **5.6 Limitations of the study**

The study registered a number of limitations and these majorly included;

Some respondents deliberately failed to answer the questionnaire. This gave the researcher hard time but she had to resource and replaced such people with the same people in the target population.

Secondly, some respondents wrongly filled the questionnaires. This came as a result of time constraints as some of them rushed to answer the question and attend to their work. But the researcher managed to recover most of the questionnaires well filled. Those which were wrongly filled were ignored. Time was one of the study's major constraints as the researcher couldn't meet some people as expected since they had travelled abroad. Since the study had a specified time, the researcher replaced such people with their personal assistants. In spite of all these challenges however, the researcher did everything he could to undertake it successfully

### **5.7 Areas recommended for further study**

1. Future research should follow the longitudinal approach to predict beliefs and behaviour over time since the model in this study is correlational, which measures the intention only at a single point in time.
2. Future research needs to expand the study population to include other banks in Uganda to comprehensively assess whether electronic banking has had a relationship with customer satisfaction.

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## APPENDICES

### APPENDIX I: QUESTIONNAIRE FOR RESPONDENTS INTRODUCTION

Dear Respondent,

The researcher is a student of Masters of Business Administration (MBA) at Uganda Management Institute (UMI), Kampala, Uganda. He is undertaking a research to generate data and information on “Electronic banking and customer satisfaction in commercial banks using a case study of Centenary Rural Development Bank”. You have been selected to participate in this study because the contribution you make to your organization is central to the kind of information required. The information you provide is solely for academic purposes and will be treated with utmost confidentiality.

Kindly spare some of your valuable time to answer these questions by giving your views where necessary or ticking one of the alternatives given. Indeed your name may not be required. Thank you for your time and cooperation.

#### **SECTION A: BACKGROUND DATA**

**Please circle the numbers representing the most appropriate responses for you in respect of the following items:**

1. Gender :      a) Male       A) Female
2. Age Bracket In Years: A) 20-29  B) 30-39  C) 40-49  D) 50+
- Level Of Education: A) Diploma  B) Bachelor’s Degree  C) Post Graduate   
Diploma  D) Master’s Degree  e) Professional Qualification
3. Duration At Uganda centenary bank A) < 1 Year  b) Between 1-5 Years   
c) Between 6-10 Years  d) > 10 Years

## **SECTION B: E-FUNDS TRANSFER BANKING**

**In this section please tick in the box that corresponds to your opinion/view according to a scale of 1 = Strongly Disagree, 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree**

<b>No</b>	<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Centenary Bank has enough ATMs that can serve all clients					
2	Centenary Bank has e-cheque services available to all customers in this branch					
3	I.T Security at Centenary Bank is not comprised by E-funds transfer					
4	Centenary Bank has an arrangement of swapping money from one account to the other					
5	Cashless banking is part of the arrangements in Centenary Bank					
6	Centenary Bank ATMs are always working 24hrs					
7	Cases of bank fraud have reduced as a result of introduction of technology.					
8	Centenary Bank has both credit and debit cards for its clients					
9	Inter-banking technology of Inter-switch is very efficient, effective and convenient to all customers.					

## **SECTION C: TELEPHONE BANKING**

**In this section please tick in the box that corresponds to your opinion/view according to a scale of 1 = Strongly Disagree, 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree**

<b>No.</b>	<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	With Centenary Bank, a customer can now bank his money using a cell-phone at home					
2	Wireless banking has increased in Centenary Bank financial services					
3	Centenary Bank is installed on with a computers information system that help the tellers in their work					
4	The bank provides information update about the bank through SMS					
5	A customer can now easily check his/her bank account using his/her phone					
5	A customer can now withdraw his/her finances using his/her phone from the bank					
6	A customer can easily know every kind of information he/she needs by merely calling in the bank especially if he/she has the bank codes					
7	Interactive Voice Response is part of the banking services in Centenary Bank					
8	Centenary Bank has smart card systems in place					
9	Tele-banking in Centenary Bank allows customers to pay all their monthly bills					
10	Centenary Bank has in place mobile banking for distant and busy customers					

**SECTION D: INTERNET BANKING**

In this section please tick in the box that corresponds to your opinion/view according to a scale of 1 = Strongly Disagree, 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree

No.	Statement	1	2	3	4	5
1	The bank provides information update about the bank through email alerts to its customers					
2	The bank's website is operational 24hrs a day					
3	Customer can now print their account statement online					
4	Centenary Bank Allows intra-Banks Account to Account Transfer using internet					
5	Centenary Bank also allows to download account transactions using your email					
6	Our internet banking is free from security risks					
7	I have heard no account compromised in Centenary Bank through internet					
8	All bank services can be accessed online					
9	There are no problems in networks regarding internet banking					
10	It is easy to make third party payments and others bills online in Centenary Bank					

**SECTION C: DEPENDENT VARIABLE – CUSTOMER SATISFACTION**



**In this section please tick in the box that corresponds to your opinion/view according to a scale of 1 = Strongly Disagree, 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree**

No.	Statement	1	2	3	4	5
1	The clientele of centenary bank has been increasing each and every year					
2	The biggest number of Centenary Bank clients have come as a result of improved banking technology.					
3	A number of referrals from old clients have been witnessed in centenary bank.					
4	Centenary Bank clients are very much determined to stay banking with the bank					
5	I have been banking with centenary for a relatively longer period of time					
6	Centenary bank is a convenient bank					
7	Centenary Bank has created a big clientele for the last five years					
8	The bank's market share has improved for the last five years					

**THANK YOU FOR YOUR PARTICIPATION!**

**APPENDIX II:**

**INTERVIEW SCHEDULE FOR ADMINISTRATION STAFF**

1. Position in the Centenary bank.....

2. Department .....

1a). Does Centenary bank have an e-fund transfer system?

b) If yes, what forms of e-fund transfer system are installed in Centenary bank?

c) Has e-fund transfer system improved customer satisfaction in Centenary bank?

2a). Does Centenary bank has telephone banking?

b) If yes, how does telephone banking used in Centenary bank?

c) Has telephone banking improved on customer satisfaction in Centenary bank?

3a). Does Centenary bank have internet banking?

b) If yes, how does internet banking used in Centenary bank k?

c) Has internet banking improved on customer satisfaction in Centenary bank?

THANK YOU SO MUCH

**APPENDIX III:**

**TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION**

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

**Source: Krejcie & Morgan (1970, as cited by Amin, 2005)**

Note.—N is population size.

S is sample size