# ELECTRONIC BANKING AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN UGANDA:

## A CASE STUDY OF POST BANK UGANDA LIMITED


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## DEDICATION

I dedicate this book to my darling husband, sons and the entire family.

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## ABRREVIATIONS AND ACRONYMS

| | |
|---|---|
| **ATM** | Automatic Teller Machine |
| **BOU** | Bank of Uganda |
| **CVI** | Content Validity Index |
| **EFT** | Electronic Fund Transfer |
| **PAR** | Portfolio at Risk |
| **PD** | Probability Default |
| **PBUL** | Post Bank Uganda Limited |
| **SBU** | Stanbic Bank Uganda |
| **SPSS** | Statistical Package for Social Scientists |
| **ICT** | Information computer technology |
| **CABS** | Central Africa Building Society |
| **SCB** | Standard Chartered Bank |
| ROA | Return on Asset |
| ROE | Return on Equity |
| B 2 C | Business to customer |
| PC | Personal Computer |

## ABSTRACT

The study examined the relationship between electronic banking and the financial performance of commercial banks in Uganda with Post Bank Uganda Limited as a case study. The study was guided by the following objectives: to establish the relationship between e-funds transfer and the financial performance of PBUL; to examine the relationship between telephone banking and the financial performance of PBUL and to assess the relationship between internet banking and the financial performance of PBUL. A case study research design was used. The study predominantly employed a quantitative approach but also used a qualitative approach. The study population consisted of 58 participants. A sample size of 49 respondents was selected using simple and purposive sampling techniques. Quantitative data analysis mainly consisted of descriptive statistics (means and standard deviations) and inferential statistics (Spearman correlation, coefficient of determination and regression). Content analysis was used to analyze qualitative data. Findings revealed that E-funds transfer banking had a positive influence (68.6%) on financial performance. Telephone banking had a positive influence (66.4%) on financial performance. Internet banking had a positive influence on financial performance of post bank Uganda limited. It was concluded that electronic banking positively influenced the financial performance of PBUL. Thus, it was recommended that for purposes of promoting e-funds towards finance performance, trust building among the customers should be a major concern for PBUL while improving the usefulness of electronic banking. In courtesy to achieve more with telephone banking on financial performance, it is imperative that PBUL ensure security and privacy are in place to monitor and evaluate the usage of the implemented technologies. Lastly, on internet banking and the financial performance of PBUL, the bank need to make sure that awareness about internet banking is created in the public through massive advertisement on radios, televisions and newspapers.

# CHAPTER ONE

# INTRODUCTION

## 1.0 Introduction

Although there has been a rapid diffusion of new mobile devices in commercial banks, electronic money transfer services have not been widely adopted by bank customers (Maurer, 2008). Customers have always reported technical difficulties and connectivity problems, proxy websites, and security problems and also that there is no real need for mobile internet-based banking services because it is associated with e-bank fraud where only a username and password stand between your money and a fraudster (Luarn and Lin, 2005). Many commercial banks have therefore resorted to changing customer attitudes towards electronic money transfer services by making it fast, cheap, easy and reliable and also by continuously investing in Information Technology hoping that it will improve its business process and increase its productivity. But still all this has not helped to solve the problem. If this situation continues, the banking sector of Uganda will technologically lag behind leading to poor financial performance (Deepu and Vijay, 2012).

This study therefore examined the effect of electronic banking on financial performance of commercial Banks in Uganda using a Case Sturdy of Posta Bank Uganda limited. This chapter provides the introductory part of the study. It comprises of the background of the study, statement of the problem, objectives of the study, research hypothesis, conceptual framework, significance and justification of the study, scope of the study and operational definitions

## 1.1 Background of the study

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

Globally, before the emergence of electronic banking, brick and mortar banks were the key to banking. However, technological innovations have influenced the banking sector in one way or another. Kassim (2005) explains that the technological revolution has produced new developments in the banking industry. It is no doubt that electronic banking is now a very strategic issue in the banking realms (Kobrin, 2001) as reported by Vij (2003). Significant development in electronic banking has paved way for banking applications such as electronic funds transfer and telephone banking. The development in the banking industry also incorporates the use of the global network (Internet), which can be accessed by anyone at any time (Basel Committee on Banking Supervision, 2001). According to Quirós (2002) and Ayadi (2003), the use of electronic payment means and increase in customer connection to the Internet eliminates geographical constraints and customers may not need to access banks physically, implying that customers can have access to banking services in any area at any time which has a significant relationship on the financial performance of the bank.

In developing countries particularly Africa, the first visible form of electronic innovation was in the early 1990s when Standard Chartered Bank (SCB) and CABS installed Automated Teller Machines (ATMs). Other forms of electronic innovations that have found their way into African banking are Electronic Funds Transfer Systems (EFT), Telephone banking, Personal Computer (PC) banking and recently internet banking. These were welcomes to release banks from the constraints of time and geographical location (Kass,1994 cited by Goi, 2005) and allow banks to

cut costs on transactions, improve their service delivery, and respond better to the demands of the market (Chang, 2003 and Sullivan and Wang, 2005). There has been a proliferation of electronic banking systems over the years, for instance, in Ghana and Nigeria where it is driving economies closer to cashless society as it removes the need for tangible currency (cash) and physical payment systems and replacing them with cards (plastic money) and internet (digital money). However in the Zimbabwean banking sector the adoption of this innovation has remained sluggish despite the convenience it brings to the customers and the banks. The sector has been gripped by a crippling cash crisis (shortages) since November 2007which has brought the economy almost to a halt.

In Uganda, the introduction of electronic banking started in 1993 when Bank of Uganda designed a website intended to disseminate banking information (Kasita, 2004). In 1997, Standard Chartered Bank introduced the first ATMs in Uganda and other banks followed (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. There was growing optimism in the banking industry that VISA credit cards would also be introduced to ease clients' access to cash from their accounts (Kakembo, 2001). In2004, Bankom a local electronic financial transaction Services Company in Uganda switched to the use of (meaning of ICT first) in which mobile phones could also be used to pay bills (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. The installed Electronic Fund Transfer Direct Debit System enabled known customers from utility companies to instruct their companies to deduct cash from their accounts and transfer it to the bank account of the utility company. This was done as a means to aid non-

cash transactions through the banking system with an aim of making cash transfers efficient, fast and secure which may sort of improve the system. In 2005, credit cards were on the increase and came with several advantages such as avoiding carrying cash physically (BOU, 2005).

For Post Bank Uganda, it is a non-bank credit institution in Uganda fully owned by the government of Uganda. Its activities are supervised by the Bank of Uganda, the country's central bank and national banking regulator. Post Bank Uganda has been in existence since 1926. It started out as a department in the Post Office. In February 1998 Post Bank Uganda Limited was incorporated in accordance with the Communications Act of 1997 to take over the operations of the former Post Office Savings department. Post Bank Uganda was incorporated under the Companies Act in February 1998 as a limited liability company. The bank's operations are supervised by the Bank of Uganda under the Financial Institutions Act. It is classified as a Tier II Institution (Non-Bank Credit Institution), by the Bank of Uganda (Mugalu, 2014).

Post Bank Uganda subscribes to the Depositors Insurance Scheme at Bank of Uganda. If Post Bank Uganda fails, the bank's depositors are insured up to Sh.3million (approximately US$1,600.00) in 2009, per eligible account. In 2009, Post Bank Uganda applied to the Bank of Uganda to become a fully licensed commercial bank. The activities of Post Bank Uganda are directed by its board of directors. In Post Bank Uganda, electronic banking was introduced in 2012 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 caused the rate of internet banking adoption in Post Bank Uganda to be very low since it is so much in ancient customers (Post Bank news, 2014). For example it was concluded that the predictive potential of electronic money transfer services in Post Bank Uganda

is still low at 30%, 40% less than the prediction by 2010 (East African Business Week, 2010, Namirembe, 2009).

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 financial performance and service delivery. Post Bank Uganda introduced pre-fabricated ATMs to reduce the queues at their access points (Nabayunga, 2014) as well as introduction of ATMs, debit and credit cards, telephones, mobile phones and web sites. All these were done to improve its financial performance while curbing bank fraud, increase profit and be accountable to people they serve. However, it is reported that the financial performance of the bank is still indulged in a number of problems and financial errors. For instance, the problem of electronic bank fraud is still reported in PBUL. For example in 2014, criminals harked 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 PBUL branch(East African Business Week, 29, 2014). The existing dismay however, is that this state of affairs has not translated into significant performance improvement. It appeared that the electronic banking used in form of e-funds transfer, telephone banking and Internet banking was 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. In Uganda, many if not all commercial banks have adopted electronic banking in form of ATMs, telephones, mobile phones and websites (Dumba, 2014). These were adopted in the view of improving its financial performance that is in form of improving profitability, liquidity position and accountability. However, this has not been the case in many commercial banks in

Uganda. For instance, PBUL set financial targets to be achieved in 2014 but only one was achieved. It had planned to reduce its non-performing loans by 40% but this was only reduced by 12%. This is measure of inadequate performance (PBUL Annual Performance Report, 2015). Stanbic Bank was reported to have lost over UGX 4billion shillings from its very managers, who swindled customer money using ATMs (Stanbic Bank annual report, 2014). In Centenary Bank Uganda, UGX 800 million shillings were embezzled from the bank by outsiders who by all means acquired Pin codes and the bank was made to pay for the losses (Kulumba, 2015). In 2012, criminals harked into Stanbic bank's records and created records showing that sh10billion was transferred electronically from several customers' accounts to a particular single account at the Iganga Stanbic Bank Branch (Odoi, 2014).Thus, if this problem is not checked, it would result in depletion of the capital base which may lead to the bank's collapse. Therefore, it was from this background that the researcher picked interest to investigate whether electronic banking in one way or the other is linked to financial performance of commercial banks in Uganda using PBUL a case sturdy.

### 1.4 Main Objective

The purpose of this study was to examine and explore the relationship between electronic banking and financial performance of commercial banks.

#### 1.4.1 Specific Objectives of the Study

The objectives of this study were:

i) To establish the relationship between e-funds transfer and the financial performance of commercial banks.

ii) To examine the relationship between mobile banking and the financial performance of commercial banks.

iii) To assess the relationship between internet banking and the financial performance of commercial banks.

### 1.5 Research Questions

This study sought to answer the following questions:

i) What is the relationship between e-funds transfer banking and financial performance of commercial banks?

ii) What is the relationship between mobile banking and financial performance of commercial banks?

iii) What is the relationship between internet banking and financial performance of commercial banks?

### 1.6 Research Hypotheses

This study tested the hypotheses that:

i) There is a positive relationship between E-funds transfer banking and financial performance of commercial banks.

ii) There is a positive relationship between mobile banking and financial performance of commercial banks.

iii) There is a positive relationship between internet banking and financial performance of commercial banks.

### 1.7 Scope of the Study

#### 1.7.1 Content Scope

This study limited itself to examining the relationship between electronic banking and financial performance of commercial banks. Electronic banking in this study had the dimensions of e-funds

transfer, mobile banking and internet banking while; financial performance was limited on liquidity, profitability and accountability.

### 1.7.2 Geographical scope

The study was conducted at Post bank Uganda Limited located on Nkrumah Road in Kampala. This is because this is the main headquarter of the bank which was presumed to have the largest number of customers who receive and send money using different electronic banking Services (PBUL strategic Plan 2012/2017).

### 1.7.3 Time Scope

The study covered the period between 2012 and 2015. This is because electronic banking services were introduced by Post Bank Uganda Limited in the year 2012 (PBUL strategic Plan 2012/2017). Specifically, the study was conducted within the range of one year (2015).

## 1.8 Significance of the study

Policy maker: The study will help improve on the electronic banking services of Post Bank Uganda Limited and further will explain and their effects on financial performance

Post Bank Uganda Limited; the study will be beneficial to Posta Uganda on how to improve on its financial services.

The study will add knowledge to the existing body of research literature relating to electronic banking and financial performance in Uganda and other similar developing economies in Africa and the world at large.

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 Financial Performance.

### 1.9 Justification of the study

Prior studies had been done on electronic banking and financial performance of commercial banks in Uganda. However, no study has been done on the aforementioned topic in PBUL Uganda 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 financial performance of commercial banks. The researcher therefore felt the need to carry out as research in order to understand the linkage between the aforementioned dimensions of electronic banking and financial performance.

### 1.10 Definition of key terms

**E-funds transfer banking:** Is the electronic transfer of money from one bank account to another, either within a single financial institution or across multiple institutions through computer based system.

**Telephone banking:** Is a method of banking in which the customer conducts transactions by telephone typically by means of computerized system using touch-tone dialing or voice recognition technology,

**Internet banking:** is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.

**Liquidity:** It is the current ratio of current assets divided by current liabilities in an organization. Or a measure to the extent which an organization has can cash to meet immediate and short term obligations.

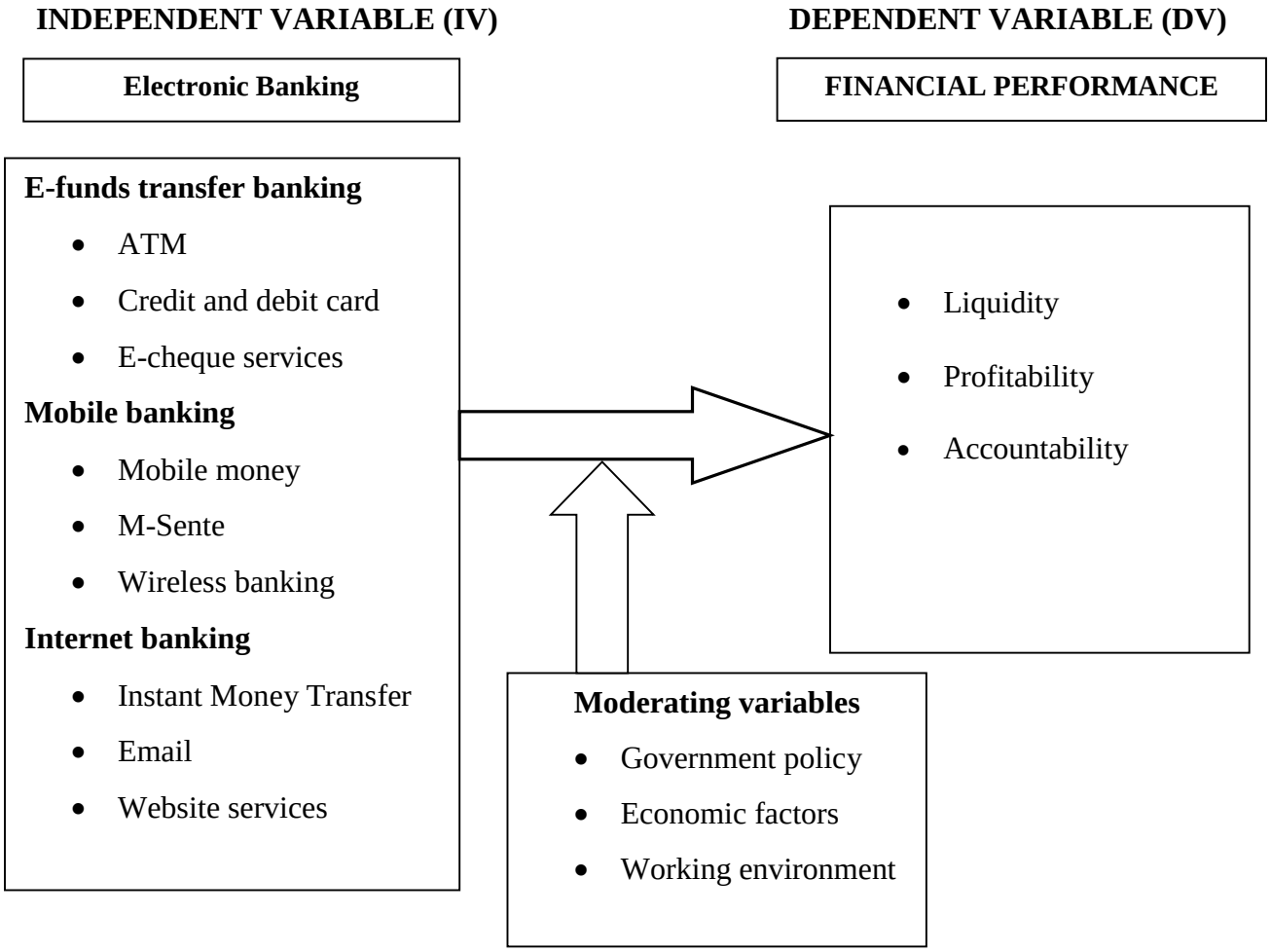
**Profitability:** It is the rate at which the organization income exceeds its expenses in the process of rendering its services

**Accountability:** This means the extent to which electronic banking can make the organization accountable in its reports and services delivery.

### 1.11 Conceptual Framework

Bakkabulindi (2006) asserts that for improved financial performance in commercial banks, it is imperative that banks have in place electronic banking devices and among these; he mentioned e-funds money transfer, mobile banking and internet banking. In the conceptual framework below, there are essentially three variables that is independent, dependent and moderating variables. Electronic banking was conceptualized as the independent variable and financial performance as the dependent variable. Electronic banking was measured using e-funds transfer (this had dimensions like ATM, Credit and debit card and E-cheque services); mobile banking (this was measured using dimensions of mobile money, M-Sente and Wireless banking) and Internet banking (Instant Money Transfer, Email and Website services). The dependent variable of financial performance was looked at basically from the four perspectives of liquidity, profitability and accountability. However, this relationship can be mitigated by a number of other moderating factors among including government policy, economic factors and working environment.

**Fig 1.0 Conceptual Framework**




***Source: Adapted and modified from Bakkabulindi (2006).***

From the conceptual framework in Figure 1, there are essentially three variables that is independent, dependent and moderating variables. Electronic banking was conceptualized as the independent variable and financial performance as the dependent variable. Electronic banking was measured using e-funds transfer (this had dimensions like ATM, Credit and debit card and E-cheque services); mobile banking (this was measured using dimensions of mobile money, M-Sente and Wireless banking) and Internet banking (Instant Money Transfer, Email and Website services). The dependent variable of financial performance was looked at basically from the four perspectives of liquidity, profitability and accountability. Basing on the idea, Bakkabulindi (2006)

established that the performance of commercial banks is highly related to electronic banking system that calls for having in place e-fund transfer systems, mobile banking and internet banking facilities. However, this relationship can be mitigated by a number of other moderating factors among including government policy, economic factors and working environment.

### 1.12 Chapter Summary

This chapter introduced the concepts of electronic banking and financial performance. Electronic banking in this case was represented the independent variable and financial performance as the dependent variable. Electronic banking has been depicted as meaning e-fund money transfer, mobile banking and internet banking. These formed the objectives of the study. Therefore, this study aimed at findings out the relationship between e-fund money transfer, mobile banking and internet banking and financial performance of commercial banks. This chapter thus provided the introductory part of the study. It comprises of the background of the study, statement of the problem, objectives of the study, research hypothesis, conceptual framework, significance, justification of the study, scope of the study and operational definitions.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Introduction

This chapter reviews the literature related to establishing the relationship between electronic banking on financial performance of commercial banks. The review was conceptualized under the objectives of the study and focuses primarily on e-funds transfer, telephone banking, and internet banking and their relationship with financial performance. These are considered the pillars of the study.

## 2.1 Theoretical Framework

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 was 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 technology design is an open process that can produce different outcomes depending on the social circumstances of development. 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 targeted or relevant social groups are the embodiments of particular interpretations, 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. Pinch and 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 are 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 Pinch and Bijker (1987), the new technological advancement must be welcomed and fully integrated in the wider socio-cultural and political milieu in which artifact development takes place. This will completely make it a success and its goals will be realized widely.

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. Therefore, this study intended to assess the relationship between electronic banking and financial performance of commercial banks in Uganda using PBUL.

### 2.2 Electronic Banking

The use of information technology in banking operations is called electronic banking Ovia ( 2001) argue that Electronic banking is a product of e-commerce in the field of banking and financial services. In what can be describe as Business-to-consumer (B2C) domain for balance enquiry, request for cheque books, recording stop payment instruction, balance transfer instruction, account opening and other forms of traditional banking services. Banks are also offering payment services on behalf of their customer who shop in different e-shops. Freedman (2000) proposes that electronic banking and electronic money consist of three devices; access devices, stored value cards, and network money. Electronic banking is simply the use of new access devices and is therefore ignored. Electronic money then is the sum of stored value (smart) cards and network money (value stored on computer hard drives). What is most fascinating and revealing about this apparently popular view is that electronic banking and electronic money are no longer functions or processes, but devices. Within this rather narrow scope for electronic banking and electronic money, there are nonetheless many research that address one or more of the challenges facing it. Santomero and Seater (1996), Prinz (1999), and Shy and Tarkka (2002), and many others present models that identify conditions under which alternative electronic payments substitute for currency. Most of these models indicate that there is at least the possibility for electronic substitutes for currency to emerge and flourish on a large scale, depending on the characteristic of the various technologies as well as the characteristics of the potential users.

### 2.2.1 E-funds money transfer services

Electronic Funds Transfer is a form of payment where by funds move from one account to another account by electronic means. It may take place in the same bank or across different banks. The customer requests or authorizes his/her bank to make regular payments to a named payee/beneficiary and it is done within a faster period of time (Bank of Africa, 2007).

Electronic Funds Transfer has mainly two features, the credit transfer and the debit transfer. Credit transfer involves a customer's request which instructs the bank to debit his/her account with funds which are then transferred to another account in the same or another financial institution. On the other hand, debit transfers involve a customer's request where by his account is credited with funds that are received from the customer's debtors following an agreement independently arranged between the customer and his debtors for example utilities (Rogers, 2003). Electronic Funds Transfer is highly emphasized compared to the traditional payment systems because it facilitates secure and timely payments and that's why in February 2007, the system was introduced to educational institutions. There many EFT system but study focused on the e-funds, telephone banking and internet banking widely use in Posta Uganda (Kumar, 2011).

### 2.2.2 Mobile banking

This 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. In addition, 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. This is a service introduced into the banking balance as a result of computer telephone technology being made available (Ovia, 2001).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 (Niranjanamurthy, 2004)

Bohmetal (2000) defined 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 sage of telephones (wired or wireless telephones) to engage in cash deposit, withdrawal and account balance inquiry by users in the bank industry. Several initiatives have emerged for initiating e-payment from mobile phones by using short messages (SMS). Or phone calls/These has also been referred to as m-payment ( Vassiliou,2004) Vassilou further indicates that most m-payments initiatives follow a simple model which the customer ( Payer) first identifies him/herself to the merchant by providing his/her phone number or by calling the merchant. The merchant forwards the payment and customer information to the payment service provider through mobile network. The service provider then presents the payment information to the payer for confirmation between the customer and the payment provider and/or merchant can take place through phone call and/or short message

Similarly Hartmann (2010) notes that mobile phone and other wireless communication devices offer way to access accounts and to use payments services. Payments initiated through mobile phones etc, are called mobile payments. Payments made via mobile phones can be conducted to pay for digital goods delivered over mobile phone, for goods ordered via internet, and goods or services bought in the physical world. Technologies applied include among other things gateway based payment services as charging gateway initiated payment brokering solutions, messaging

based payment services such as short message ( SMS) and multimedia message ( MMS) initiated payments, store value based payment services such as mobile wallets and accounts, and mobile identification and authorizations based payment services such as the use of ( secure) wireless identification modules (SWIM/WIM) together with (wireless) public key infrastructure (WPKI/PKI) or other identification and authorization schemes used to provide digital signature and certificates for large payment transactions.

Hartmann (2010) Further notes that mobile phones can also be used to initiate payment to be debited from the mobile phone holder's credit/debit card or directly from his/her phone or bank account. In this case the mobile network operators have a role in messaging, but on in the clearing and settlement process. Also certain functions of mobile banking may be subsumed under m-payment for in-stance credit transfer that is initiated via mobile devices. However this group could also be regarded as mere distribution channels for banking services that address specific customers.

### 2.2.3 Internet Banking

Internet banking refers to systems that enable bank customers to get access to their accounts and general information on bank products and services through the use of bank's website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations (Henry, 2000). It differs from online banking in that internet banking provides universal connection from any location worldwide and is universally accessible from any internet linked computer (Bradley and Stewart, 2003; Henry, 2000; Rotchanakitumnuai and Speece, 2003; Jan-Her Wu et al., 2006 and Perunal and Shanmugan, nd). BIS-EBG (2003) cited by MU Yibin (2003) defines internet banking as the provision of retail and small value banking products and services through electronic channels as well as large value electronic payments and other wholesale banking services delivered electronically (Kamel, 2005 and Nath, Shrick and Parzinger,

2001). Chang (2003), Sullivan and Wang (2005) view internet banking as a process innovation whereby customers handle their own banking transactions without visiting bank tellers. It also allows non-customers to visit virtual banks via the public network while Phone banking or PC banking provide only closed networks limited to the existing client. Types of Internet banking Diniz (1998), Henry (2000) and MU Yibin (2003) identify three functional level/kinds of internet banking that are currently employed in the market place and these are: Informational, Communicative and Transactional.

Informational (Websites)-This has been identified as the first level of internet banking. Typically the bank has the marketing information about the bank's products and services on a standalone server. The risk is very low as informational systems typically have no path between the server and the bank's internal network. Communicative/Simple transactional (Websites) – This type of internet banking allows some interaction between the bank's systems and the customer. The interaction is limited to e-mail, account inquiry, loan application or static file updates (name and address). It does not permit any funds transfers. Advanced Transactional (Websites) - This level of internet banking allows bank customers to electronically transfer funds to/from their accounts, pay bills and conduct other banking transaction online.

Internet banking is the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit-taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment products and services such as electronic money (Basel Committee Report on Banking Supervision, 1998). According to Chou and Chou (2000), Internet banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. Internet banking includes the systems that

enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through the Internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer, personal digital assistant, Automated Teller Machine (ATM), Kiosk, or Touch Tone telephone.

Although E-funds money transfer may have appeared and even behaved like a new product or service when it was initially introduced, e-banking is now most accurately portrayed as a relatively new, convenient, and technologically-oriented procedure whereby, consumers can accomplish customary banking tasks more quickly and easily than before ( Rogers, 1983). Organizations continue to substantially invest in Information Technology hoping that it will improve their business process and increase their productivity. However, for technologies to improve productivity, they must be accepted by intended users (Venkatesh, 2003). On line banking offers a high 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 had tried their account details compromised as a result of online banking. Thus, if anyone is going to use it for financial transaction, he should be aware ot the risks involved. Awareness of the risks and problems enable him take precautions for a more secured online banking experience.

While carrying out transactions, there are many instances when the banker might need help of the representative, from the bank.

Hutchinson and warren (2003) argues 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 bank provides the customer care number, the banker finds 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 end. Once the line is put through, one may either get somebody helpful and knowledgeable or may not, leaving him/her in a baffled and confused situation.

Internet banking has also come with instant Cash Money transfer (ICMT) which is an instant web based money transfer services through Post offices (ICMT center) between two resident individuals in a territory. Instant cash money transfer is instant, convenient, reliable and affordable. The receiver presents 16 digits ICMT number at any designated ICMT post office counter and fills up, submits a form for payment along with his/her a copy of his personal identity proof. The receiver then receives payment in cash. He can also receive the payment through his post office savings account in the same ICMT office (Hutchinson and Warren, 2003)

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 banking towards market and increased the development of internet banking. Hutchinson and warren (2003) argues 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 transaction being conducted are secured within their respective environment. 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 costs 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).

Ezeoha ( 2005) studied Regulating Internet Banking in Nigeria and noted that there are security concern in internet Banking where fraud has become daily business to some individuals; Internet

Banking had remained insignificant due to fraud and forgery-banking services are offered in Naira 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 making few customers to transact their businesses through the internet. Coupled to that is that the development of bank websites does not go beyond information purpose. 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.

Wait and Harrison ( 2005) studied and analysis of website in the evolution in the Pensions sector and found that pension websites support new business transactions rather than existing accounts management and provide more information on company strength and market position than detail on product and services and proposed a model of financial services, website evolution and applies it to a longitudinal content analysis of 30 pension provider website, spanning eight year of web development from 1996 to 2003.Eriksson,et.al., ( 2004) studied the customer Acceptance of internet banking in Estonia and used the Technology acceptance model. They found out that bank uses increases in so far as customers perceive it as useful. It was also noted that perceived usefulness of internet banking for banks is a key construct for promoting customer use.

Yeap and chach (2005) carried out a sturdy in Malaysia about internet banking and found out that internet banking concentrated in foreign banks. Online trust is defined as the consumers' expectations of how the site would deliver expectations, how believable the site's information is, how much confidence the site commands (Bart, 2005). In essence trust is developed when a consumer forms positive impression on the electronic sites and are willing to accept vulnerability

(Mc knight and Chervany, 1996).Mc Knight (2002).In the context of internet banking, the trustee is typically a consumer who has to decide whether to adopt internet banking or stay with more traditional ways to undertake her/his financial transactions.

Bradley and steward (2002) [15] studied A Delphi sturdy of the drivers and Inhabitation of internet Banking in the United Kingdom and investigated factors driving and inhibiting Internet banking using the Delphni method. As opposed to Bradley and Laura (2002) this sturdy aimed at establishing the influence of ITC on the banking industry using self- administered questioners to solicit data from the respondents. Tan and Toe (2002), this sturdy incorporated Rogers' (2003) Diffusion of innovations Theory while establishing the influence of ICT on the banking industry in Kampala. Despite the internet banking technology in Uganda its relationship on financial performance has not been well established hence giving room for the sturdy to take place.

**2.3 Financial performance**

Financial performance according to Stoner (2003) measures how well a firm is generating value for the owners. It can be measured through various financial measures such as profit after tax, return on assets (ROA), return on equity (ROE), earnings per share and any market value ration that is generally accepted. Financial performance has been measured using a combination of financial ratios analysis, benchmarking, measuring performance against budget or a mix of these methodologies (Ahmad et al, 2011). The financial statements of financial institutions commonly contain a variety of financial ratios designed to give an indication of the corporation's performance. Some useful measures of financial performance are coined into what is referred to as CAMELS (Capital adequacy, Asset quality, and Management, Earning, Liquidity and Sensitivity analysis) which guide the banking sector (Madhyam & Stichele, 2010). This study borrows from the above

concept of financial performance and conceptualized it to include three indicators of profitability, liquidity, accountability.

### 2.3.1 Profitability

It is the ability of the bank to earn a profit on the level of income made. Traditionally the financial performance of banks and other financial institutions has been measured using a combination of convectional accounting measures of risk and return (Duncan et al 2004). Dermirguc and Detrigiache (1998) argued that bank performance can be measured using profitability which is the percentage of net profit before tax to the total income of the bank. Sadakkadula and Subbaiah (2002), contend that profitability indices are widely accepted and used by bankers, financial institutions, management, owners and other creditors as they are interested in knowing whether or not the firm earns a profit on its activities.

### 2.3.2 Liquidity

It is the ability of an organization to pay its short term debts as they fall due. Liquidity ratio is the result of dividing liquid assets by current liabilities. On the other hand, liquidity risk is the risk of the financial institution being unable to meet financial commitments or payments at the right time, place and in the required currency (Kaufman, 1995). Kasekende and Atingi-Ego (2003) argue that Ugandan commercial banks keep excess reserves on hand that is sufficient to cover adverse interbank clearing. This means that commercial banks have to divert a greater proportion of their loan able funds to accumulated reserves with Bank of Uganda and cash at hand which in effect earn zero interest rate. Liquidity is essential for a bank because it determines whether the bank will be able to provide funds for growth. Liquidity analysis determines how easily the bank can acquire immediate funds through either assets or liabilities. This would involve selling assets as a first option or increasing the bank‘s liabilities. Although both of these scenarios come with a cost

attached. By selling assets the asset quality will decrease, and by adding liabilities the bank may add costs depending on the market situation. (Uniform Bank Performance Report Fall 2009).

### 2.3.3 Accountability

A variety of earnings-quality definitions exist. Teets (2002) states that ―some consider quality of earnings to encompass the underlying economic performance of a firm, as well as the accounting standards that report on that underlying phenomenon; others consider quality of earnings to refer only to how well accounting earnings convey information about the underlying phenomenon. Pratt (2003) defines earnings quality as―the extent to which net income reported on the income statement differs from true earnings‖. Penman (2003) indicates that quality of earnings is based on the quality of forward earnings as well as current reported earnings. Schipper and Vincent (2003) define earnings quality as―the extent to which reported earnings faithfully represent Hicksian income, which includes―the change in net economic assets other than from transactions with owners. Earning capacity or profitability keeps up the sound health of an FI. Chronically unprofitable FI risks insolvency on one hand and on the others, unusually high profitability can reflect excessive risk taking of an FI. There are different indicators of profitability. Return on assets, return on equity, interest-spread ratio, earning-spread ratio, gross margin, operating profit margin and net profit margin are commonly used profitability indicators.

**Actual Review**

### 2.4 E-funds transfer and financial performance

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), 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. According to the Glossary of Terms used in Payment Settlement Systems as reported by Anguelovet. 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) 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.

Several researchers indicate that the use of e-funds transfers technologies such as ATMs and e-cheques have shown positive response. For example (Wucker, 2004),explained that in Latin America, migrant workers use ATMs to send money home in which members of their families can easily withdraw funds. This therefore makes 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 wasn't available.

Gourlay and Pentecost (2005) 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 unexpectantly are lowered, (Ingham and Thompson, 1993; Hamphrey, 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.

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 implies that use of e-funds transfer technology in Australia Technological Progress and its relationship on the Banking Industry 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 further posited that, to establish links between technological progress and the productivity growth of the banking industry and industry structure multivariate analysis should be used. Despite the contribution of the above study, the influence of ICT on users in the banking industry in Kampala can be established by an empirical approach that the study seeks to use. 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 in Uganda (Batanda, 2001).

### 2.5 Mobile banking and financial performance

The mobile money landscape has changed over time but Maurer, (2011) examines the history of mobile money and noted that historically, the concept of formal mobile money services commonly referred to as the use of mobile phones as a channel for money transfer and savings have only been around for a very short while, beginning with the launch of Smart Money in 2003 and Globe G-CASH in 2004 in the Philippines. The World Bank Report (2012) however notes that informal mobile money services have been in existence since 2000 where people could purchase prepaid airtime and either transfer it from one account to another or resell prepaid airtime codes on the black market. If the airtime could be cashed out, person-to-person airtime transfer served as a form of remittance. Even if it could not be formally cashed out, it could still be resold to another person.

Similarly, Hartmann (2010) notes that Mobile phones and other wireless communication devices offer new ways to access accounts and to use payment services. Payments initiated through mobile phones etc. are called mobile payments. Payments made via mobile phones can be conducted to pay for digital goods delivered over the mobile phone, for goods ordered via the internet, and for goods or services bought in the physical world. Hartmann (2010) further notes that the mobile phone can also be used to initiate payments to be debited from the mobile phone holder's credit/debit card or directly from his/her phone or bank account. In these cases the mobile network operators have a role in messaging, but not in the clearing and settlement process. Also, certain functions of mobile banking may be subsumed under M-Payments, for in- stance credit transfers that are initiated via mobile devices. However, this group could also be regarded as a mere distribution channel for banking services that address specific customer segments.

Fengle (2012) notes that in Kenya, mobile money was the game changer in bringing financial services to the middle class and the poor. In 2007, Safaricom, Kenya's leading mobile phone operator, launched M-Pesa which has become the world's leading example of mobile money. Mobile money, which allows cash to travel as fast as a text message, is not an extension of banking. It is a new form of banking, just as cell phones are a new form of telecommunication rather than an extension of landlines. Unlike mobile banking, mobile money does not necessarily need a banking infrastructure.

Formally, in exchange for cash deposits Safaricom issues a commodity known as 'e- money' measured in the same units as money which is held in an account under the user's name. To facilitate purchase and sale of e money and in light of low rates of bank accounts coverage among widely dispersed population, M- Pesa maintains and operates an extensive network of more than 16,000 agents across Kenya (William, and Suri, 2010). The agents are like small bank branches often manned by a single person. Ndiwalana et al., (2011) point out that in 2009, MTN Uganda introduced Mobile money services in Uganda, followed by Zap – Zain now Airtel money in, UTL , WaridPesa by Warid in 2011 and Orange Money in 2012. These have equally changed only the mobile telephone products or services in the telecommunication sector, but also the financial sector especially the un-bankable populace.

Ndiwalana et al. (2012) Of the 7 Mobile Network Operators (MNOs), in Uganda only 4 currently have mobile money offering MTN Mobile Money, M-Sent from UTL, Airtel Money and Orange Money. Besides money transfers, the four players offer other transactions such as buying of airtime, utility bills payment and selected supermarket bills, school fees, sports bating and western union. To comply with financial services regulation the MNOs have partnered with banks MTN is working with certain banks like, Stanbic Bank, Centenary Bank, Crain Bank, UTL with DFCU

and AIRTEL with Standard Chartered Bank. The MNOs have presented their mobile money service to potential customers differently. MTN positioned their Mobile Money offering as a way to send money to others, just like M-Pesa did in Kenya (Mas and Morawczynski 2009). Subsequent offerings thus had to find ways to differentiate them. AIRTEL Money touts itself as being "much more than money transfer, although it was not much be different at inception, granted their aspiration seems much wider as evidenced by options in their SIM menu application (AIRTEL, 2013). UTL's M- Sente, the latest offering to-date, has positioned their offering as a general payment method with simply pay with M-Sente. However the M-cente product of UTL has not only performed fairly low compared to the four players, but has persistently failed to attain its performance expectations to the chagrin of the management of the company.

A study by Nyaga (2013) reveals that, reduced transaction costs, reduced time to transact, increased financial accessibility and increased efficiency ultimately led to increase SMEs financial transactions through mobile money like M-sente. Mobile money services can also be viewed as a variation of branchless banking with the potential for delivery of financial services outside conventional banking. This observation made by Wambari and Mwaura (2009) that it can have a number of useful benefits to financial institutions which include access to financial services like making deposits and savings, accessing the formal banking sector through mobile money services and many others. Since mobile money presents a cheaper option for various essential services like banking, financial and payment services, this model presents the argument that increased transactions arising from mobile money lead to increased business activities which eventually leads to improved SMEs performance and competitiveness.

Bangens and Soderberg (2010), mobile financial transactions lead to increased efficiency in SMEs. This is because mobile financial transactions assist in saving time while undertaking business

transactions. Haggins at el (2012) observes that most SMEs find mobile phone financial transactions easier than bank based financial transactions. This is due to the fact that they assist the users to avoid incurring travelling expenses when making and collecting payments. This enables them to significantly reduce their operating costs and increase their performance. Jensen (2007) emphasizes that mobile phone financial transactions assist SMEs to reduce information asymmetries and market inefficiencies hence enabling them to achieve better performance.

Muiruri and Ngari (2014) study found that some banks in Kenya had adopted some financial innovations such as credit cards, mobile, internet and agency banking. The financial innovations had great impact on the financial performance of the banks. Mirzoyants (2012; 2013) for study found that availability and use of mobile money services contributes to increased household income especially important for poor people in rural areas for whom traditional banks and related financial services in Uganda and Tanzania. Ngaruiya, Bosire and Kamau (2014) Kenyan study which found that in relation to sales revenue, majority of the respondents perceived that their sales revenue after the usage of mobile money transaction was good. Based on the findings, this study recommends that those Small and Medium enterprises (SME) that don't use mobile money transactions should adopt this service to enable them improve their performance. This is because those SMEs that were found using Mobile money indicated an improved performance on their sales revenue which is an indicator of good financial performance. Additionally, the study recommends that the mobile money service providers should improve on this service so as to enable the system to produce a receipt for audit trails and verification purposes.

### 2.6 Internet banking and financial performance

You can use online banking to pay your bills. This will eliminate the need for stamps and protect yourself from the check being lost in the mail. Most banks will have a section in which you set up

payees. You will need to fill out the information once, and then you can simply choose that profile every time you pay a bill online. If your bank will not pay bills online you may consider paying online through the company. With Stanbic Internet banking, anytime is banking time. No queues. No closing. You choose your business hours. Online banking allows you to access your account history and transactions from anywhere. This is the quickest way to check and see if a transaction has cleared your account. This can help you to find out the amount of a transaction after you have lost your receipt. It also allows you to find out about unauthorized transactions more quickly. This can help you to resolve the issues more quickly. With the help of Internet banking, you can access any information regarding your account and transactions, any time of the day. This means that you no longer have to depend on the office hours of your bank to obtain information. Therefore, you can regularly monitor your account as well as keep track of financial transactions, which can be of immense help in detecting any fraudulent transaction. Therefore with Stanbic Bank, you can be sure to Access banking services online, anytime, anywhere. You can check your balances and statements, transfer funds and pay your bills with ease and at your convenience. You can also check your notifications, log queries related to transactions in your account and issue or stop cheques.

Online banking also allows you to transfer money between accounts much more quickly. It is more convenient than using the automated phone service, and can save you a trip to the bank. When you apply or set up your online banking, be sure that all of the accounts you have at the bank are listed. This will make it easier to transfer money and make loan payments online. Customers are no longer required to wait in those long and wearisome lines of the banks to request a financial transaction or statement. It has made the opening of an account quite simple and easy and without much paperwork. The same flexibility can be observed even while closing an account. You can also

apply for bank loans without personally visiting any local branch of your bank. In addition to this, fund transfers, both national and international, have also become faster and convenient with Internet banking. Nowadays, you can transfer funds from one account to another within a few minutes. You can easily carry out stock trading, exchanging bonds and other investments with the help of this facility. All these features have made Internet banking ideal for people who make a number of financial transactions each day.

Conventional banking has always been slow and time-consuming, so much so that sometimes you need to wait several hours to process a simple transaction like clearing a check. But, Internet banking has tremendously reduced the time required to process banking transactions, thereby making banking faster and convenient. For the bankers this system is cost-effective, as it has considerably reduced the administrative costs and paperwork related to the transactions. Besides, banks can also cater to the needs of thousands of customers at the same time. All these factors have significantly increased the profit margins of commercial banks by lowering their operating costs. This has enabled them to offer acceptable interest rates on savings account and credit cards.

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. 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.

### 2.7 Summary

The literature reviewed clearly indicates that there are a number of studies in place that have viably established that electronic banking has a relationship with financial performance of an organization, however, key gaps were indentified that called for conducting of this study. Most of the gaps were in form of historical, methodological, conceptual, theoretical and contextual. The literature reviewed seems to have been done previously in the years below 2013, we are currently in 2016 and this study is called to verify what may be happening currently about E-funds transfer, telephone banking and internet banking and financial performance of PBUL. Theoretically, the study findings seem to be limited much on such E-funds transfer services that are not much indicated in the conceptual basis of this study.

# CHAPTER THREE:

# RESEARCH METHODOLOGY

## 3.0 Introduction

This chapter therefore comprise of research design, area of study, study population, sampling procedures, sample size, data collection methods and instruments, quality control methods, data management and processing, data analysis, ethical considerations and anticipated limitations to the study.

## 3.1 Research Design

This study used a case study research design. A case study research design was used since the PBUL acted as a representation of other commercial banks in Uganda in this study. The study hence used quantitative approaches during sampling, data collection, quality control, and analysis. At data collection stage, quantitative design involved administering closed ended questionnaire to respondents. Quantitative approach was used because it was important in creating correlations and regressions between research variables. In addition, this study used a quantitative approach because the study called for using statistics to generalize findings.

## 3.2 Research Study Area

The study was conducted at Post bank Uganda Limited located on Nkrumah Road in Kampala. This is because this is the main headquarter of the bank which is the largest number of customers who receive and send money using different electronic banking Services

## 3.3 Study Population

The study used a target population of 74 respondents at Posta Bank Uganda limited (Human Resource Records, 2016). These comprised of 6 administrative staffs/managers and 68 lower Bank

officials. The choice of the target population was on the basis that they possess adequate knowledge on electronic banking and financial performance of Post Bank Uganda Limited.

### 3.4 Sampling procedures

#### 3.4.1 Sample Size

The sample size was determined using the table in Appendix C from a study by (Krejcie & Morgan, 1970), as cited in (Amin, 2005). The model used a table which has two columns {population column (N) and Sample column (S)}. In this model, the population study is related with the corresponding sample to the nearest estimate.

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

| **Category** | **Population size** | **Sample size** |
|---|---|---|
| Administrative/Bank Managers | 6 | 6 |
| Lower bank officials | 68 | 58 |
| **Total** | **74** | **64** |

Source; Post Bank Uganda ltd (2015)

#### 3.4.2 Sampling Techniques

The study used stratified random sampling technique to select respondents in the bank. This technique was chosen because the category of these bank officials involved different strata and these needed to be represented in the study. At the end of the study, all strata were fairly represented accordingly.

### 3.5 Data Collection Methods and instruments

#### 3.5.1 Data sources

The main source of data in this study was primary data. Primary data was responses from the respondents. The advantage of primary data is its originality. Primary data was collected using questionnaire.

#### 3.5.2 Data collection instruments

Questionnaires were used to collect data from the respondents in PBUL. The questionnaire was used in this case because it had proved to be an invaluable method of collecting a wide range of information from a large number of individuals especially when it comes to people like banking officials (Sekaran, 2003). The questionnaires are popular because the respondents filled them in at their own convenience and are appropriate for large samples. The questionnaires were designed with both open and closed ended questions (Amin, 2005).Using five likert rating scale from 1-5 (1 strongly disagree, 2disagree, 3not sure, 4agree, 5strongly agree).

### 3.6 Data Collection Procedures

The researcher obtained a letter from Faculty of Business Administration; Uganda Martyrs University introducing her to PBUL and specifying that the data to be collected was solely for study purposes. Upon obtaining the requisite permission, the researcher proceeded with data collection starting with giving out questionnaires to different employees of PBUL from deferent departments like, IT & finance, General banking, loans department, security and investigations, Audit and risk, Accounting and finance, Marketing & research, Corporate services, Human resource department, International relationship manger and Manager customer care.

### 3.6 Quality control methods

Controlling quality is about ensuring acceptable levels of reliability and validity of the study through proper control of extraneous variables. An extraneous variable is any other independent variable which can also affect the dependent variable,(Oso & Onen, 2008).

#### 3.6.1 Validity

A validity test was carried out prior to the administration of the questionnaires. Three experts were used. This was done in order to find out whether the questions are capable of capturing the intended responses. Content Validity Index (CVI) was calculated in order to establish the validity of the questionnaire. The researcher determined CVI, when after giving the Self-Administered Questionnaire (SAQ)/ instrument to two management and research professionals for rating/ judgment and scoring. They found out that, respectively 14 and 15 out of 16 SAQ items were really true and correct. Using the following mathematical model, CVI = $[(IR_1 + IR_2) \div 2] \div$ No of items in questionnaire, the content validity index was accordingly the calculated:

$IR_1$ referred to inter – rater/ judge one; $IR_2$ meant inter rater/ judge two.

By substitution, CVI = $[(IR_1 + IR_2)2]$/No of items in questionnaire

The researcher used the following formula to establish validity of the research instruments as seen below.

**Table 3.2: Validity of instrument**

| Variable | Description | Anchor | Content validity index |
|---|---|---|---|
| Independent | E-fund transfer | 5point | .888 |
| | Telephone banking | 5point | .861 |
| | Internet Banking | 5point | .776 |
| Dependent | Financial performance | 5point | .845 |

*Source: Primary data*

As recommended by Amin (2005), for the instrument to be valid, the C.V.I should be at least 0.7. Therefore, since my questionnaire was valid at 0.892, it was worth to conduct the study.

### 3.6.2 Reliability

Gay (1996) defined reliability as the degree of consistency that the instrument demonstrates. After pilot testing in the field, reliability of the instrument, on multi-item variables (E-Funds transfer, Mobile banking and internet banking were tested via the Cronbach Alpha Method provided by Statistical Package for the Social Scientists (Foster, 1998). The researcher used this method because it was expected that some items or questions would have several possible answers. The researcher established reliability of the questionnaires by computing the alpha coefficient of the items (questions) that constituted the dependent variable and that of the items that constituted the independent variable. The results are as on Table 3.3:

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

| Variable | Description | Anchor | Cronbach alpha |
|---|---|---|---|
| Independent | E-fund transfer | 5point | .831 |
| | Telephone banking | 5point | .767 |
| | Internet Banking | 5point | .786 |
| Dependent | Financial performance | 5point | .767 |

*Source: Primary data*

According to Cronbach Alpha Coefficient Test (Cronbach, 1971), the questionnaire was considered reliable since all the coefficients in Table 4 were above 0.7 which is the least recommended CVI in survey studies (Amin, 2004; Gay, 1996 ).

After the approval of the proposal, the researcher designed the questionnaire, validated it then tested its reliability using the Cronbach Alpha method. After modifying the instrument, the researcher secured a letter of introduction to assist the researcher proceed with the study. Two research assistants were selected from the undergraduate classes to help in distribution and collection of questionnaires to and from respondents.

### 3.7 Measurement of Variables

Mugenda and Mugenda (2003) support the use of nominal, ordinal, and Likert type rating scales during questionnaire design and measurement of variables. The nominal scale was used to measure such variables as gender, among others. The ordinal scale employed to measure such variables as age, level of education, years of experience, among others. The five point Likert type scale (1-strongly disagree, 2-disagree, 3-not sure, 4- agree and 5-Strongly agree) was used to measure the independent variable (electronic banking) and the dependent variable (financial performance). The

choice of this scale of measurement was that each point on the scale carries a numerical score which is used to measure the respondent's attitude and it is the most frequently used summated scale in the study of social attitude. According to Mugenda (2003) and Amin (2005), the Likert scale is able to measure perceptions, attitudes, values and behaviors of individuals towards a given phenomenon.

### 3.8 Data management and processing

The data was organized and summarized in one place. The researcher then checked for completeness and accuracy. The raw data was then be captured in Excel (spread sheet) before it is entered into STATA Version 10 for quantitative analysis and interpretation. Cleaning and editing was done before and after entering data into the computer software to examine outliers and inconsistencies of responses.

### 3.9 Data Analysis

STATA Version 10 was used in detailed analysis of data. Analysis was done at Univariate, Bivariate and multivariate levels. Diagnostic tests were also carried out on the data to check normality and correlation between variables and where necessary data was transformed.

#### 3.9.1 Univariate analysis

Here the researcher looked at how many subjects fell into a given categories and they were given simpler unit of analysis. Data collected was systematically organized to facilitate analysis. The unit of analysis was the individuals who responded to the survey. The raw data was edited to ensure completeness. Thereafter, it was coded using statistical figures to enable quantitative analysis in STATA Version 10.

### 3.9.2 Bivariate analysis

Responses were grouped into repeated subjects. The repeated subjects were presented in the results based on the study objectives. Here a spearman correlation coefficient was used to determine the relationship between the two variables. The spearman coefficient was 0.05 level of significance.

### 3.9.4 Multivariate analysis

The statistical package was used to analyze quantitative data that goes beyond two variables in this study was STATA Version 10. Here, multiple regressions were used to determine the degree of relationships between more than two variables. Correlation coefficient was computed to establish the degree of the relationships between the independent variables and the dependent variable and to determine the strength and direction of their relationship. The correlation coefficients results were obtained at 0.01 level (2-tailed) significance and at 0.05 level (2-tailed) significance.

## 3.10 Ethical Considerations

Informed consent was sought from the respondent before any interview. The data was collected by use of reliable and valid tools, coded and data collection tools which will be burnt to avoid any form of information misuse. The researcher ensured that all citations and references of different authors are acknowledged. The researcher maintained confidentiality of the respondents and protect their privacy at all times. The researcher tried to be professional when presenting himself to the respondents as this might affect the attitude and expectations of the respondents. The researcher used the language that was as neutral as possible regarding the terminology involving people and avoided discriminative language. Lastly, the researcher tried to be considerate during the interactions with respondents

### 3.11 Limitations of the study

The following were the limitations encountered by the researcher during the study.

**Attrition**; some respondents filled in the questionnaires without really reading or understanding the question but just to complete fast. The researcher however made an effort to avoid distributing of questionnaires during rush hour and also try to capture the interest of the respondent.

**Sensitivity of information**; some respondents felt the information required was sensitive and could affect their working environment if revealed. The researcher however made an effort to convince respondents that the information exchanged would be very confidential.

**Unwillingness to fill the questionnaires**; some respondents were unwilling to share information about their leaders, and the service system. The researcher however endeavored to emphasize that it is a purely academic research and confidentiality will be upheld.

**Interpretation of the questions;** this affected the meaning as some respondents had difficulty in interpreting the questions correctly. Efforts were made to explain and interpret for them every time an opportunity occurred.

### 3.12 Chapter Conclusion

In this chapter the procedures that were followed in conducting the study have been unveiled. It has been established that a case sturdy research design was employed in the study. The population of the study was basically employees of UPBL head office at Nkrumah road Kampala. The 108 respondents were conveniently selected. Data was analyzed quantitatively. Quantitatively, data was entered in SPSS. Variables were measured in the Likert scale format (strongly disagree1, disagree2, undecided3, agree4 and strongly agree5).

# CHAPTER FOUR

# PRESENTATION AND DISCUSSION OF FINDINGS

## 4.1 Introduction

This chapter presents results of the study based on the formulated objectives and hypotheses as presented in chapter one. The chapter analyzes the variables involved in the study and estimate the conceptual model described in chapter one. In the first two sections data description and analysis is presented. The model estimation and the analysis of the results are then discussed. Finally concluding remarks are made. Data description involves a discussion on the sources of data and definitions of the dependent and the independent variables. Data collected was quantitatively analyzed and presented in tables. Hypotheses are also tested with the study accepting or failing to accept them depending on the *p* values and *t* test value.

## 4.2 Response Rate

**Table 4.1: Showing Response Rate**

| **Instruments** | **Frequency** | **Percent** |
|---|---|---|
| Number of questionnaires distributed | 64 | 100 |
| Number of questionnaires returned | 61 | 95.3 |

N=108

*Source: Primary data (2016)*

Out of the 64 questionnaires that were distributed, 61 were returned making 95.3% return rate. However, according to Amin (2005), 70% of the respondents are enough to represent the sample size set for the study. This means that 95.3% is enough for this study.

### 4.3 Demographic Information of respondents

The demographics information shows the characteristics of the elements in the sample size. As such, the researcher sought to establish the general information of the respondents, which forms the basis under which the interpretations were made.

#### 4.3.1 Gender of Respondents

This information was necessary to enable the researcher to obtain information on whether the respondents were either male or female. Below is the gender of respondents in table 4.2

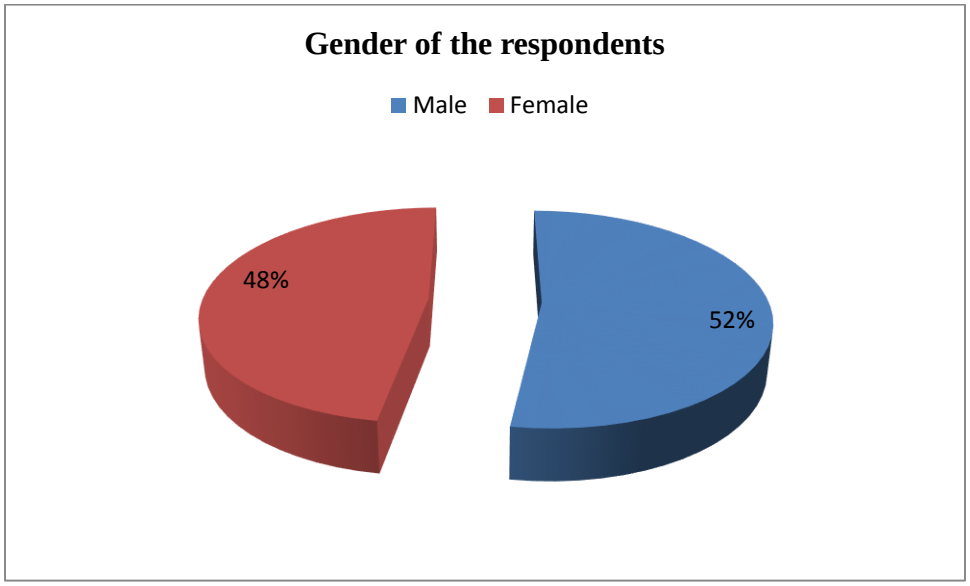
**Table 4.2: Gender of Respondents**

| | **Frequency** | **Percentage** |
|---|---|---|
| Male | 32 | 52.5 |
| Female | 29 | 47.5 |
| **Total** | **61** | **100.0** |

*Source: primary data (2016)*

The majority of the respondents were male (52.5%) and female were (47.5%). These results show that gender representation indicated a small variation between the male and female with a difference of 3. It further shows that the PBUL is keen on matters of gender balance, which can translate into better performance. At least there was no big difference between males and females involved in the running and management of PBUL. This type of work is dominated by the male. Figure 2 below has more details presented in the bi-chart form.

**Figure 2: Gender of respondents**




***Source: primary data (2016)***

### 4.3.2Age of Respondents

This information was necessary to enable the researcher to obtain information on the age of the respondents. Below is the gender of respondents in table 4.3.

**Table 4.3: Age of Respondents**

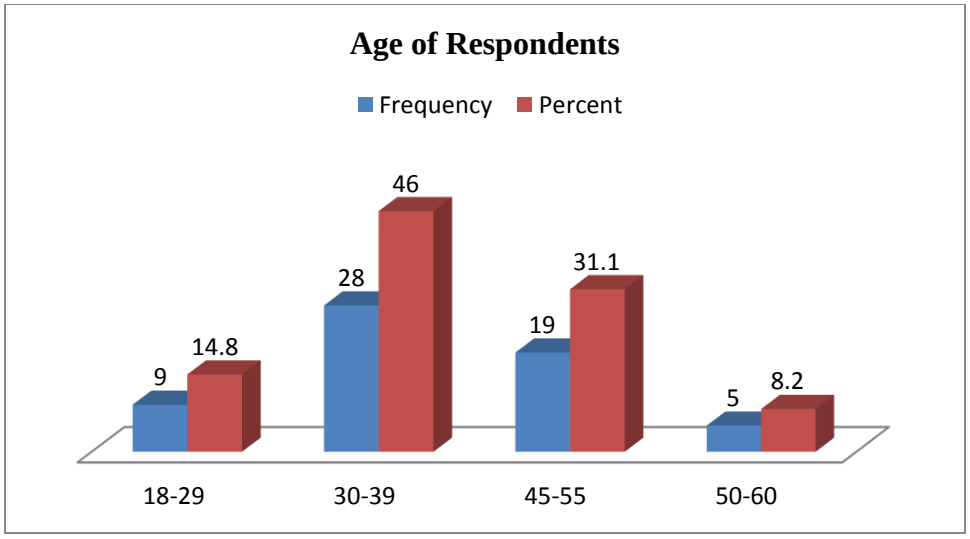
| | Frequency | Percent |
|---|---|---|
| 18-29 | 9 | 14.8 |
| 30-39 | 28 | 46 |
| 45-55 | 19 | 31.1 |
| 50-60 | 5 | 8.2 |
| **Total** | **61** | **100.0** |

*Source: primary data (2016)*

It was established that all the respondents that took part in the study were above the age of 30. 46% were between ages of 30-39 years; 31.1% were between the ages of 45-55years, 18-29years had 14.8% and those 50-60years were represented by 8.2%. This implies that they were mature enough to analyze issues relating to financial performance. The respondents adequately responded to the

questions put forward and by virtue of their experience, their responses were sound enough such that the researcher was able to generate adequate data from them for the researcher's study. The majority of respondents were between the age of 30-39 (46%) because most commercial institutions employ people below the age of 35 to do the basic work in the institution for example bank tellers, cashiers and loans officers are employed when they are below 35 because they want productive and energetic young men who can accomplish tasks on time and can easily be driven, coordinated and controlled. This explains why the majority of the respondents were between 30 to 40 years. Below is figure 3 with more graphic details.

**Figure 3: Age of the Respondents**




*Source: primary data (2016)*

### 4.3.3 Level of education of Respondents

The information is necessary to enable the researcher to know whether the respondents are educated or illiterate. Below is the level of education of respondents in table 4.4

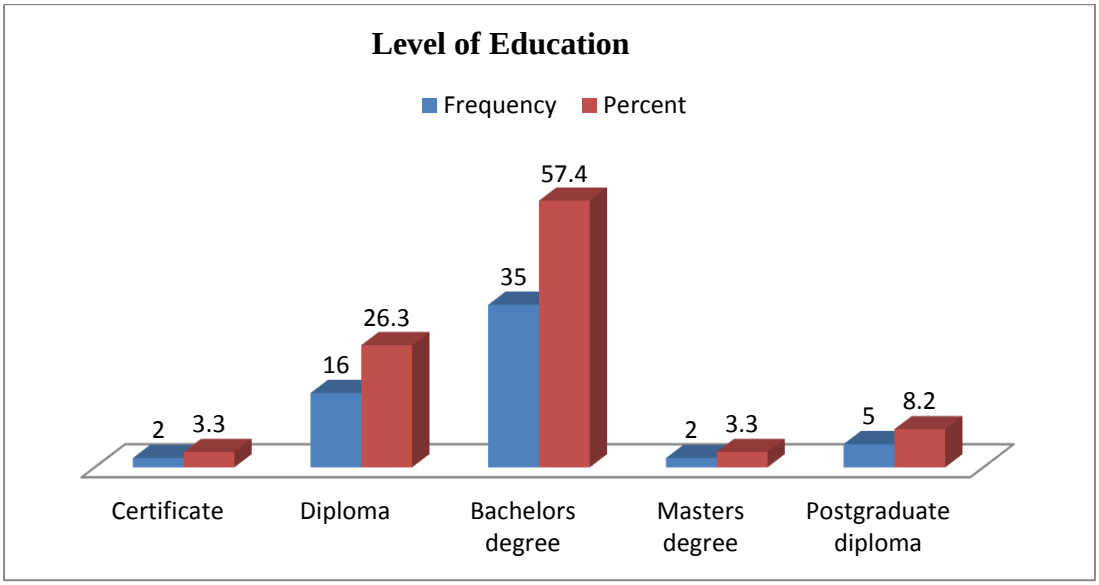
**Table 4.4: Level of education of Respondents**

| | Frequency | Percent |
|---|---|---|
| Certificate | 2 | 3.3 |
| Diploma | 16 | 26.3 |
| Bachelor's degree | 35 | 57.4 |
| Master's degree | 2 | 3.3 |
| Postgraduate diploma | 5 | 8.2 |
| **Total** | **61** | **100.0** |

*Source: primary data (2016)*

Many of the respondents were degree holders (57.4%) compared to 3.3% master's degree, 26.3% diploma holders and no doctorate holders just because today most banks at least recruit workers who have attained their diploma since they possess more trainability skills than persons without degrees. On the other hand the minimum requirement to get a job with a commercial bank as a bank teller, cashier, loans officer is a degree or its equivalent for example professional qualifications like ACCA and CPA.These results indicate that the respondents had reasonably good education qualifications and the desired skills and knowledge to deliver. Besides, on the basis of the education levels, the respondents were able to read, understand the questionnaire and gave appropriate responses.Information on the academic qualifications of the respondents is statistically shown in figure 4 below.

**Figure 4: Education level of respondents**




***Source: primary data (2016)***

### 4.3.4 Duration at Post bank Uganda Limited

The information is necessary to enable the researcher to know the time spent while working Post Bank Uganda limited. Below is the Duration of respondents at Post bank Uganda Limited of respondents in table 4.5

**Table 4.5: Duration at Post bank Uganda Limited**

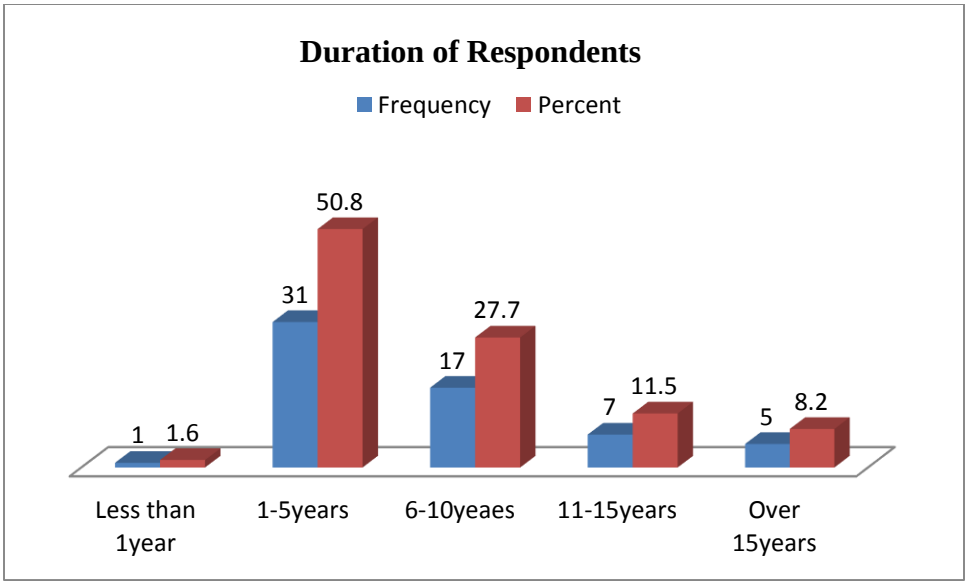
| | Frequency | Percent |
|---|---|---|
| Less than 1year | 1 | 1.6 |
| 1-5years | 31 | 50.8 |
| 6-10yeaes | 17 | 27.7 |
| 11-15years | 7 | 11.5 |
| Over 15years | 5 | 8.2 |
| **Total** | **61** | **100.0** |

***Source: primary data (2016)***

The table above shows that majority of 52.3% of the respondents had worked with Posta Uganda for 1- 5 years while 19.8% has worked with the bank for 6-10 years. The least number of respondents (2%) had worked with the Posta for over 15 years. The implication was that the

respondent has attained adequate experiences with Posta EFT given the reasonable time they had worked with the company and therefore knowledgeable about the product and financial performance in the company. Figure 5 below has more details;

**Figure 5: Time spent working with Post Bank Uganda limited**




***Source: primary data (2016)***

### 4.3.5 Marital status of respondents

The information is necessary to enable the researcher to know the marital status of respondents at Post Bank Uganda limited. Below is the marital status of respondents in table 4.6

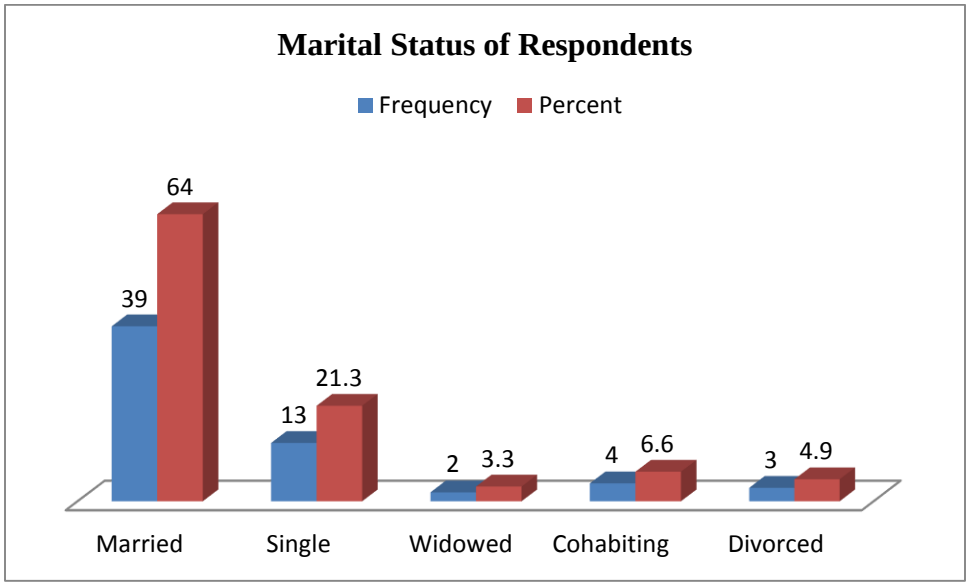
**Table 4.6: Marital status of respondents**

| | Frequency | Percent |
|---|---|---|
| Married | 39 | 64 |
| Single | 13 | 21.3 |
| Widowed | 2 | 3.3 |
| Cohabiting | 4 | 6.6 |
| Divorced | 3 | 4.9 |
| **Total** | **61** | **100.0** |

***Source: primary data (2016)***

The table 4.6 above shows that majority of 64% of the respondents were married while 21.3% were single. The least number of respondents were widowed constituting 3.3% of the total number of respondents and those who were cohabiting constituting 6.6% of the total number of respondents. The implication was that Posta undertook to employee staff irrespective of their marital status. However it anticipated that those who are married will be more committed. Figure 6 below has more details

**Figure 6: Marital status of respondents**




***Source; primary data (2016)***

### 4.4 Univariate analysis

This theme presents empirical findings presented on observations of e-funds transfer, mobile banking and internet banking in Post Bank Uganda Limited and the financial performance. While presenting the empirical findings on the observation of e-funds transfer, mobile banking and internet banking in PBUL and financial performance, means and standard deviations were used to present this information univariately**.**

### 4.4.1 Adoption of E-fund transfer services

In an effort to find out whether PBUL had adopted e-funds transfer services, respondents were asked to react on different preconceived statements and table 4.7 below has more details.

**Table 4.7: E-fund transfer**

| Items | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| Cases of bank fraud have reduced as a result of ATM | 1 | 5 | 4.14 | .704 |
| PBUL has e-cheque services | 1 | 5 | 4.19 | .703 |
| Our security at PBUL is not comprised by E-funds transfer | 1 | 5 | 4.22 | .695 |
| PBUL has credit card system for its clients | 1 | 5 | 4.38 | .637 |
| Cashless banking is part of the arrangements in PBUL | 1 | 5 | 4.41 | .626 |
| PBUL has enough ATMs that can serve all clients | 1 | 5 | 4.45 | .586 |
| Our ATMs are always working 24hrs | 1 | 5 | 4.50 | .465 |
| PBUL has an arrangement of swapping money from one account to the other | 1 | 5 | 4.61 | .456 |
| PBUL has debit cards for its clients | 1 | 5 | 4.77 | .309 |

***Source: primary data (2016)***

The results in table 4.7 above revealed that the means for all items were above 3.5 and standard deviation less than one. Based on the scale of 1-strongly disagree to 5-strongly agree, any data mean of above 3.5 and standard deviations below one indicates existence of the variables understudy. This thus, statistically means that PBUL has E-Funds transfer services. The items that confirmed the above statistical claim included;

PBUL has debit cards for its clients (4.77). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This implied that PBUL has adopted debit cards in its daily business

operations which are too essential in easy international business transaction. Since the mean was above 3.5, this indicates that PBUL had in place debit cards for its clients. And since the standard deviation was small as (0.309), this critically means that there is no much variations in the mean obtained and hence, the statement can be taken as passed the criterion.

PBUL has an arrangement of swapping money from one account to the other (M=4.61) and (SD=.456). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This thus means that PBUL can easily allow easy switch of money from one bank to the other which makes it convenient to clients to do business &cost effective to PBUL.

Our ATMs are always working 24hrs (M=4.50) and (SD=.465). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This therefore meant that there is easy access to money at all times whenever the clients need so. This depicts the convenience and timesaving in PBUL.

PBUL has enough ATMs that can serve all clients (M=4.45) and (SD=.586). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This implied that PBUL can easily be accessed by a big number of people and access services as quickly as possible. This elements opens room for clients to keep withdrawing at all times which is a positive score for PBUL. This study finding is in agreement with Morris-Cotterill (2002) which had indicated that ATMs have extended banking services to the remote areas depositing and withdrawal of funds can be carried out in rural areas.

Cashless banking is part of the arrangements in PBUL (M=4.41) and (SD=.626). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This was also agreed on by most of the respondents and it meant that PBUL allows mobile transfer of money in any locality. This is also an issue of convenience.

PBUL has credit card system for its clients (M=4.38) and (SD=.637). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. The credit card system makes it easy for clients to buy goods without using hard cash. This makes it simpler for clients to access their accounts at any time without getting worried. 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).

Our security at PBUL is not comprised by E-funds transfer (M=4.22)and (SD=.695).Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This tells us that the bank has done a lot to away with phishing and cyber-crimes that are involved in electronic money transfer. This makes the system attractive to a big number of people. This study finding is in agreement with Morris-Cotterill (2002) which had indicated that ATMs have extended banking services to the remote areas depositing and withdrawal of funds can be carried out in rural areas.

Other statements that were agreed on included; PBUL has e-cheque services (M=4.19) and (SD=.703); Cases of bank fraud have reduced as a result of ATM (M=4.14) and (SD=.704). Since the means are above 3.5 and the standard deviations were below 1, this therefore meant there is no

much variation in the mean score obtained from different respondents. These meant that customers can easily use their money even if they are at home or out of the country. These are the basis for increased financial performance in the bank

The above statements implied that PBUL has widely adopted e-fund money transfer in its banking arrangements. These results tallied with what was informed in interviews where 100% of respondents who agreed that e-fund transfer services were prevalent in PBUL. From the above findings, it is imperative that PBUL extends ATMs banking services to the remote areas depositing and withdrawal of funds can be carried out in rural areas as indicated by (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).

### 4.4.2 Adoption of mobile banking

In an effort to find out whether PBUL had adopted mobile banking services, respondents were asked to react on different preconceived statements and table 4.8 below has more details.

**Table 4.8: Mobile Banking**

| Items | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| With PBUL, a customer can now bank his money using a cell-phone at home | 1 | 5 | 2.22 | 1.707 |
| Wireless banking has increased in PBUL financial services | 1 | 5 | 2.43 | 1.554 |
| PBUL is installed on with a computers information system that help the tellers in their work | 1 | 5 | 3.60 | .846 |
| The bank provides information update about the bank through SMS | 1 | 5 | 3.66 | .799 |
| A customer can now easily check his/her bank account using his/her phone | 1 | 5 | 3.75 | .767 |
| A customer can now withdraw his/her finances using his/her phone from the bank | 1 | 5 | 3.98 | .747 |
| 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 | 1 | 5 | 4.00 | .705 |
| Interactive Voice Response is part of the banking services in PBUL | 1 | 5 | 4.14 | .647 |
| PBUL has smart card systems in place | 1 | 5 | 4.38 | .579 |
| Tele-banking in UPBL allows customers to pay all their monthly bills | 1 | 5 | 4.39 | .507 |
| PBUL has in place mobile banking for distant and busy customers | 1 | 5 | 4.48 | .447 |

The results in table 4.8above revealed that the means for most of the items were above 3.5 and had standard deviations below 1. It was found out that out of the 11-items that were introduced to respondents, 9-items were indicated with a data mean above 3.5 and 2-items had data means below 3.5 and standard deviations below 1. 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 mobile banking so far is incorporated in PBUL. Among the items that had means above 3.5 and standard deviations below 1 included;

PBUL has in place mobile banking for distant and busy customers (4.48) and (SD=.447). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. Most of the respondents strongly agreed with this statement. This thus implied that in post bank Uganda limited, customers who are busy and a bit distant can easily access their account information. This act is very much important in attracting new customers to use bank services. Telephone banking contributes adequately to financial performance of PBUL. This in agreement with studies by the study 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.

Tele-banking in PBUL allows customers to pay all their monthly bills (4.39) and (SD=.507).Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This was also reflected with strong agreement from most of the respondents. It implied that PBUL allows paying their bills using their phones. These are in line with Amedu (2005). He indicates that because of improving financial performance, 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 mobile money services which allows a bank customer to withdraw cash from his account via a cash dispenser (Machine), and the account is debited immediately.

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 (4.38) and (SD=.579). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score

obtained from different respondents. This was also strongly agreed by most of the respondents. This implied that at any time, customers can access their bank information using their phones. This makes it easy for people to use bank services.

Interactive Voice Response is part of the banking services in PBUL (4.14) and (SD=.647). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This means that this was agreed by most of the respondents. This meant that PBUL allows thorough discussion with customers and these makes it easy to settle all differences they may have with their customers.

PBUL has smart card systems in place which has expanded bank's assets (4.00) and (SD=.705).Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This was agreed by most of the respondents. The credit card system makes it easy for clients to buy goods without using hard cash. This makes it simpler for clients to access their accounts at any time without getting worried.

A customer can now withdraw his/her finances using his/her phone from the bank (3.98) and (SD=.747).Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This was also agreed by most of the respondents. This implied that at any time, customers can access their money and bank information using their phones. This makes it easy for people to use bank services.

A customer can now easily check his/her bank account using his/her phone (3.75) and (SD=.767).Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This was also

agreed by most of the respondents. This implied that at any time, customers can access their money and bank information using their phones. This makes it easy for people to use bank services.

The bank provides information update about the bank through SMS and this has stimulated more savings (3.66) and (SD=.799). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. Most of the respondents agreed that the bank provides information update about the bank through SMS and this has stimulated more savings. This means that clients can easily know when they have withdrawn or deposited money on their accounts right from the phone.

PBUL is installed on with a computers information system that helps the tellers in their work (3.60) and (SD=.846).Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. Most of the respondents agreed that the bank has in place computer information system that can rapidly feed information to clients whenever they need.

With PBUL, a customer can now bank his money using a cell-phone at home (2.43) and (SD=1.554). Since the mean is below 3.5 and the standard deviation is above 1, this therefore meant there is much variation in the mean score obtained from different respondents. Most of the respondents disagreed that customer at PBUL can now bank his money using a cell-phone at home. This is an indication less adoption of telephone or mobile banking at PBUL.

Wireless banking has increased in PBUL financial services (2.22) and (SD=1.707). Since the mean is below 3.5 and the standard deviation is above 1, this therefore meant there is much variation in the mean score obtained from different respondents. Most of the respondents disagreed with the

above statement. This implied that wireless banking had not been fairly adopted in PBUL. This is an indication less adoption of telephone or mobile banking at PBUL.

The above responses thus mean that PBUL has adopted mobile or telephone banking for distant and busy customers. This was in line with earlier literature. For instance, ADB Report (2010) indicated that most of commercial banks in Uganda lack advanced and string network to sustain telephone banking, add on the fact that even the customers seems to not readily adopt this kind of banking. This has affected on the financial performance of PBUL since it has to put in a lot without getting much more in turn. From the above findings, it is ideal that the mobile banking in relation to money transfer is made quicker (Kiguddu, 2005).

Previous studies such as Heijden (2002) Heyer and Mas (2009) Bangens and Soderberg (2010) had hailed the use of mobile money for being cost effective and social benefits especially among women. Haggins at el (2012) specifically observes that most SMEs find mobile phone financial transactions easier than bank based financial transactions. This is due to the fact that they assist the users to avoid incurring travelling expenses when making and collecting payments. Nyathira (2012) equally notes that development of more efficient payment systems, with adequate regulation, should therefore be encouraged for improved financial performance and faster economic growth. A study by Niwalana et al (2011) equally notes mobile money operators will become profitable if they operate in international markets where they are licensed.

### 4.4.3 Adoption of internet/instant cash transfer

In an effort to find out whether PBUL had adopted internet cash transfer services, respondents were asked to react on different preconceived statements and table 4.9 below has more details.

**Table 4.9: Internet/Instant Cash Transfer**

| **Items** | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| The bank provides information update about the bank through email alerts to its customers | 1 | 5 | 3.19 | 2.109 |
| The bank's website is operational 24hrs a day | 1 | 5 | 3.27 | 1.987 |
| Customer can now print their account statement online | 1 | 5 | 3.46 | 1.876 |
| PBUL Allows intra-Banks Account to Account Transfer using internet | 1 | 5 | 3.54 | .799 |
| PBUL also allows to download account transactions using your email | 1 | 5 | 3.66 | .601 |
| Our internet banking is free from security risks | 1 | 5 | 3.76 | .594 |
| I have heard no account compromised in PBUL through internet | 1 | 5 | 4.11 | .499 |
| All bank services can be accessed online | 1 | 5 | 4.12 | .488 |
| There are no problems in networks regarding internet banking | 1 | 5 | 4.52 | .347 |
| It is easy to make third party payments and others bills online in PBUL | 1 | 5 | 4.57 | .333 |

The results in table 4.9 reveal that the means for most of the items were above 3.5 and had standard deviations below 1. 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 standard deviations below 1 and 3-items had data means below 3.5 and standard deviations above 1. Based on the scale of 1-strongly disagree to 5-strongly agree, any data mean of above 3.5 and a small standard deviation indicates existence of the variables understudy. This thus, statistically means that internet banking had been adopted by Post Bank Uganda limited. Among the items that had means above 3.5 included;

It is easy to make third party payments and others bills online in PBUL (4.57) and (SD=.333). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no

much variation in the mean score obtained from different respondents. This response was agreed on by most of the respondents. This implies that people can easily bank and withdraw money using their internet. This is a big development that can attract numerous customers.

There are no problems in networks regarding internet banking (4.52) and (SD=.347). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This thus tells us that with internet banking in PBUL, clients can viably access their bank information without fail and this is enough to conclude that it makes it easy and convenient. Ahmed et al (2001) further had ascertained that instant cash transfer offers a higher level of convenience for managing one's finances even from one's bedroom. However, it continues to present challenges to the financial security and personal privacy.

All bank services can be accessed online (4.12) and (SD=.488). This was also agreed on by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This tells us that people can easily negotiate their loan services, check their accounts and international bank services online. This is very important for businessmen who are up and down.

I have heard no account compromised in UPBL through internet (4.11) and (SD=.499) and our internet banking is free from security risks (3.76) and (SD=.594). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. These tells us that the bank has done a lot to away with phishing and cybercrimes that are involved in electronic money transfer. This makes the system attractive to a big number of people.

PBUL also allows downloading account transactions using your email (3.66) and (SD=.601); Stanbic Bank Allows intra-Banks Account to Account Transfer using internet (3.54) and (SD=.799). Since the means are above 3.5 and the standard deviations are below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This thus implied PBUL had highly adopted the use of internet banking in its operations.

On the other hand, some of the responses were indicated with means below 3.5 and some of them included;

Customer can now print their account statement online (3.46) and (SD=1.876). Since the mean is below 3.5 and the standard deviation is above 1, this therefore meant there is much variation in the mean score obtained from different respondents. Most of the respondents remained neutral with the above statement. This implied that customer cannot ably print their account statement online in PBUL. This is an indication less adoption of internet banking at PBUL.

The bank's website is operational 24hrs a day (3.27) and (SD=1.987). Since the mean is below 3.5 and the standard deviation is above 1, this therefore meant there is much variation in the mean score obtained from different respondents. Most of the respondents remained neutral with the above statement. This implied that PBUL's website is adequately operating all the time and this is an indication of less utilization of internet banking that is presumed to have a negative effect on its financial performance.

The bank provides information update about the bank through email alerts to its customers (3.19) and (SD=2.109). Since the mean is below 3.5 and the standard deviation is above 1, this therefore meant there is much variation in the mean score obtained from different respondents. Most of the respondents remained neutral with the above statement. This implied that PBUL doesn't provide

enough information update about the bank through email alerts to its customers and this is an indication of less utilization of internet banking that is presumed to have a negative effect on its financial performance.

The findings above was in line with what Sathye (2009) had earlier showed that, there is need to understand how and why technology has or has not been adopted for knowledge work in less-developed countries is important for managers/service providers and customers alike. Nathet al (2001) further had ascertained that instant cash transfer offers a higher level of convenience for managing one's finances even from one's bedroom. 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.

### 4.4.4 Perceived financial Performance of PBUL

To understand the perceived financial performance of PBUL, respondents were asked to react on different preconceived statements and table 4.10 below has more details.

**Table 4.10: Perceived financial Performance of PBUL**

| | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|
| Our bank has enough cash to meet its obligations effectively (as and when they fall due) | 1 | 5 | 3.59 | .998 |
| All our loans are paid in time | 1 | 5 | 3.69 | .865 |
| The Default level in our bank has reduced for the past three years | 1 | 5 | 4.02 | .875 |
| Our Return on Equity has increased for the past three years | 1 | 5 | 4.02 | .796 |
| Every year increases shareholder's equity | 1 | 5 | 4.12 | .783 |
| Our net income supersedes our operating costs for the last 3years | 1 | 5 | 4.16 | .665 |
| All bank loans are dully corrected | 1 | 5 | 4.29 | .640 |
| The bank 's asset base has greatly increased over time | 1 | 5 | 4.48 | .598 |
| The bank's income increases every year | 1 | 5 | 4.54 | .550 |
| The percentage of non-performing loans in our bank has been reducing consistently | 1 | 5 | 4.58 | .472 |

The results in table 4.10above reveal that the performance of PBUL was a bit convincing. Basing on the scale of 1-strongly disagree to 5-strongly agree, any data mean of above 3.5 and standard deviation below 1 indicates existence of the variables understudy. This thus, statistically means that the financial performance of PBUL was promising. Among the items that had means above 3.5 and smaller standard deviations included;

The percentage of non-performing loans in our bank has been reducing consistently (4.58) and (SD=.472). This was agreed with by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This means that the bank is making fewer losses in loans which make it stable for people to open accounts and work with it.

The bank's income increases every year (4.54) and (SD=.550).This was agreed with by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This therefore means that since the bank is performing white well income wise, there is a possibility that even its clients are benefiting.

The bank's asset base has greatly increased over time (4.48) and (SD=.598). This was agreed with by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This implies that since bank assets are growing, there is stability in the bank which acts as security for clients in case there are any malfeasances.

All bank loans are dully corrected (4.29) and (SD=.640). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This was agreed with by most of the respondents. This means that the bank is making fewer losses in loans which make it stable for people to open accounts and work with it. This is in line with what Ahmed et al (2006) had earlier indicated that making fewer losses is as a result of telephone banking.

Our net income supersedes our operating costs for the last 3years (4.16) and (SD=.665). This was agreed with by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This therefore means that since the bank is performing white well income wise, there is a possibility that even its clients are benefiting.

Every year increases shareholder's equity (4.12) and (SD=.783). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This was agreed with by most of the respondents. This is an indicator of safety in bank services. Thus, this implies that since bank assets are growing, there is stability in the bank which acts as security for clients in case there are any malfeasances.

Our Return on Equity has increased for the past three years (4.02) and (SD=.796). Further, this was agreed with by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This is an indicator of safety in bank services. Thus, this implies that since bank assets are growing, there is stability in the bank which acts as security for clients in case there are any malfeasances.

The Default level in our bank has reduced for the past three years (4.02) and (SD=.875); this was agreed with by most of the respondents. Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. This therefore means that since the bank is performing white well income wise, there is a possibility that even its clients are benefiting.

All our loans are paid in time (3.69) and (SD=.865); our bank has enough cash to meet its obligations effectively (as and when they fall due) (3.59) and (SD=.998). Since the mean is above 3.5 and the standard deviation is below 1, this therefore meant there is no much variation in the mean score obtained from different respondents. These thus mean that Stanbic bank Uganda has enough liquidity, low non-performing loans, increased on its assets and profitability is perceived as increasing. These are indicators of prevailing good financial performance in PBUL. These are in line with what Bohmet al (2000) had earlier indicated that some banks have always accepted instructions by telephone from trusted customers well known to them, as part of their ordinary branch banking service.

## 4.5 Bivariate Analysis

Correlations statistics were used in bivariate analyses. Correlation statistics is a method of assessing the relationship between variables/factors. To be precise, it measures the extent of association between the ordering of two random variables although; a significant correlation does not necessarily indicate causality but rather a *common linkage* in a sequence of events. Thus, the study analyzed the relationships that are inherent among the independent and dependent variables as well as among the independent variables/ factors.

### 4.5.1 The relationship between e-funds transfer and financial performance of PBUL

To test if there was a relationship between e-funds transfer and financial performance of PBUL, a spearman rho correlation coefficient was done by the study and the results are shown in Table 4.11 below. To verify this hypothesis, a null hypothesis was derived that *"E-funds transfer banking has a positive relationship on financial performance of PBUL."*

**Table 4.11: Correlation results between e-funds transfer and financial performance**

| | | | E-funds transfer banking | Financial performance |
|---|---|---|---|---|
| Spearman's rho | E-funds transfer banking | Correlation Coefficient | 1.000 | .669** |
| | | Sig. (2-tailed) | . | .022 |
| | | N | 86 | 86 |
| | Financial performance | Correlation Coefficient | .669** | 1.000 |
| | | Sig. (2-tailed) | .022 | . |
| | | N | 86 | 86 |

**. 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 financial performance. 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 *"E-funds transfer banking has a positive relationship with financial performance of PBUL."* was accepted.

This study finding is in agreement with Morris-Cotterill (2002) which had indicated that ATMs have extended banking services to the remote areas depositing and withdrawal of funds can be carried out in rural areas. 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) in further support, opinioned 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. According to the Glossary of Terms Used in Payment Settlement Systems as reported by Anguelovet. 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 confirms 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 unexpectantly are lowered, (Ingham and Thompson, 1993; Hamphrey, 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). There are positive results noted in the use of e-funds transfer with increased use of ATMs and e-cards.

### 4.5.2 The relationship between mobile banking and the financial performance of PBUL

To test if mobile banking affects financial performance of PBUL, a spearman rho correlation coefficient was done by the study and the results are shown in Table 4.12 below. To verify this hypothesis, a null hypothesis was derived that *"Mobile banking has a positive relationship with the financial performance of PBUL"*

**Table 4.12: Correlation results between mobile banking and the financial performance**

| | | | Mobile banking | Financial performance |
|---|---|---|---|---|
| Spearman's rho | Mobile banking | Correlation Coefficient | 1.000 | .544** |
| | | Sig. (2-tailed) | . | .039 |
| | | N | 86 | 86 |
| | Financial performance | Correlation Coefficient | .544** | 1.000 |
| | | Sig. (2-tailed) | .039 | . |
| | | N | 86 | 86 |

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

Findings show that there was a significant positive correlation ( *rho* = .544) between mobile banking and financial performance of PBUL. Since the correlation do imply causal-relationship as stated in the first objective, the coefficient of determination ( $rho^2$ = .295), which is a square of the correlation coefficient was computed and expressed as a percentage to determine the change in financial performance of PBUL due to mobile banking. Thus, findings show that mobile banking accounted for 29.5% change in financial performance. 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 *"*mobile banking has a positive relationship on the financial performance of PBUL*"* was accepted.

Telephone banking contributes adequately to financial performance of PBUL. This in agreement with studies by the study 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) further indicates that because of improving financial performance, 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 mobile money services which 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 (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 vitalrole in the adoption and usage of tale-banking technology.

### 4.5.3 The relationship between internet banking and the financial performance of PBUL

To test if internet banking had an influence the financial performance of PBUL, a spearman rho correlation coefficient was done by the study and the results are shown in Table 4.13 below. To verify this hypothesis, a null hypothesis was derived that *"Internet banking has a positive relationship on the financial performance of PBUL"*

**Table 4.13: Correlation results between internet banking and the financial performance**

| | | | Internet banking | Financial performance |
|---|---|---|---|---|
| Spearman's rho | Internet banking | Correlation Coefficient | 1.000 | .276 |
| | | Sig. (2-tailed) | . | .041 |
| | | N | 86 | 86 |
| | Financial performance | Correlation Coefficient | .276 | 1.000 |
| | | Sig. (2-tailed) | .041 | . |
| | | N | 42 | 42 |

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

Findings show that there was a positive correlation ($rho = .276$) between internet banking and financial performance. Since the correlation does imply causal-relationship as stated in the first and second objective, the coefficient of determination ($rho^2 = .076$), which is a square of the correlation coefficient was computed and expressed as a percentage to determine the change in financial performance of PBUL due to Internet banking. Thus, findings show that Internet banking for 7.6% change in financial performance of PBUL. 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 *"Internet banking has a positive relationship on the financial performance of* PBUL*"* was accepted.

This in agreement with studies by Schmukler (2007), who had earlier showed that the commercial banks have a bigger influence on their performance of if they do have internet banking services, this is because many business in localities deal in exchanging currency by currency and keep receiving money every day that needs to be exchanged. This entirely affects the performance of a bank. Hutchinson and Warren (2003) on the other sounds contrary to study findings, where they 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 (Hutchinson and Warren, 2003).

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).

### 4.6 Multivariate analysis

Regression was used to establish the multivariate results of the study. Table 4.14 below has more details.

**Table 4.14 showing multivariate analysis**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | F Statistic | Sig. |
|---|---|---|---|---|---|---|
| 1 | .950[a] | .802 | .703 | .47158 | 14.277 | .000 |

a. Predictors: (Constant), E-funds transfer, Telephone banking, Internet banking

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.939 | .341 | | 5.681 | .000 |
| | E-funds transfer | .159 | .089 | .567 | 4.996 | .078 |
| | Telephone banking | .159 | .089 | .523 | 4.788 | .078 |
| | Internet banking | .327 | .105 | .391 | 3.125 | .003 |

**a. Dependent Variable: financial performance**

The findings in table 4.14 showed that of all the predictor variables in the regression model of financial performance, all dimensions were found to have beta values (E-funds transfer beta = .567, p<.01;Telephone banking beta = .523, p<.01; and internet banking beta = .391, p<.01) was found to have a significant and positive effect on financial performance of PBUL. This implies that the higher the level of adoption of e-funds transfer, telephone banking and internet banking in

PBUL, the more the improvement in financial performance of the bank innovative. The regression model of financial performance was found to be significant ($F = 14.277$, $p<.01$) and hence well specified, which means that e-funds transfer, telephone banking and internet banking were appropriate predictors of financial performance in PBUL.

The predictive power of the model was found to be 70.3% (Adjusted R Square = 0.703). This result indicates that the variation in e-funds transfer, telephone banking and internet banking combined accounts for 70.3% variation in the level of financial performance in PBUL.

### 4.7 Chapter Conclusion

This chapter therefore established that there was a positive relationship between e-funds transfer and financial performance of PBUL; it was established that there was a positive relationship between mobile banking and financial performance of PBUL and it was established that there was a positive relationship between internet banking and financial performance of PBUL. These study findings therefore, provide direct evidence that by adoption of electronic banking positively and significant influence the financial performance of commercial banks. Therefore, much effort is required in commercial banks to ensure that electronic banking is fully welcomed if they are to improve their financial performance.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECCOMENDATIONS

## 5.1 Introduction

The general objective of this study was to examine the relationship between internet banking and financial performance of Post Bank Uganda Limited. The study made inference on the hypothesis that e-funds transfer, telephone banking and internet banking services have significantly affected the financial performance of Post bank Uganda Limited.

## 5.2 Summary of findings

### 5.2.1 Demographic factors

It was established that all the respondents that took part in the study were above the age of 30 The majority of respondents were between the ages of 30-39 (46%). On side of gender, the majority of the respondents were males (52.5%) and female (47.5%). These results show that gender representation indicated a small variation between the male and female with a difference of 3. Academically, many of the respondents were degree holders (57.4%) compared to 3.3% master's degree, 26.3% diploma holders and no doctorate holders. On time spent, it was found out that majority of 50.8% of the respondents had worked with Posta Bank for 1- 5 years while 26.3% has worked with the bank for 6-10 years. The least number of respondents (3.5%) had worked with the Posta for over 15 years. In addition, it was established that (64%) of the respondents were married, 21.3% were single. These respondent's bio data thus implied that most of the respondents had the required ages, with balanced gender variations and academic qualifications to respond to the study.

### 5.2.2 The relationship between e-funds transfer and financial performance of PBUL

E-funds transfer *had a significant positive effect on financial performance of PBUL* (coefficient estimate ($\beta 1 = 0.669$, p value =0.001). In particular, the positive significant effect implied that a change in E-funds transfer contributed to a significant change in financial performance whereby improvement in E-funds transfer caused improvement in financial performance and vice versa.

### 5.2.3 The relationship between mobile banking and financial performance of PBUL

The study found out that there is a positive relationship between mobile banking and financial performance of PBUL. Research findings are in agreement with the hypothesis (coefficient estimates ($\beta 2 = 0.544$, p value =0.000). In particular, the positive significant effect implied that a change in mobile banking contributed to a significant change in financial performance whereby improvement in mobile banking caused improvement in financial performance and vice versa.

### 5.2.4 The relationship between internet banking and financial performance of PBUL

The study findings indicated that there is a positive relationship between internet banking and financial performance of PBUL. Research findings are in agreement with the hypothesis since internet banking adopted by PBUL has coefficient estimate ($\beta 3 = 0.276$, p value =0.001), hence hypothesis 3 do hold. Internet banking services like instant cash transfer offered by PBUL significantly impact on the bank's financial performance. In particular, the positive significant effect implied that a change in internet banking contributed to a significant change in financial performance whereby improvement in internet banking caused improvement in financial performance and vice versa.

## 5.3 Conclusion

Below are the conclusions made on each and every study objective

On the first objective, it was established that there was a positive relationship between e-funds transfer and financial performance of PBUL. Centered on the empirical results of this study, it is concluded that PBUL undertakes required e-funds transfer to support its financial performance.

On the second objective, it was established that there was a positive relationship between mobile banking and financial performance of PBUL. Centered on the empirical results of this study, it is concluded that PBUL allows the required mobile banking services which support its financial performance. More effort should be put in to improve the Banks financial performance.

On the third objective, it was established that there was a positive relationship between internet banking and financial performance of PBUL. Centered on the empirical results of this study, it is concluded that PBUL undertakes the required internet banking which supports its financial performance.

These study findings therefore, provide direct evidence that by adoption of electronic banking positively and significant influence the financial performance of commercial banks. Therefore, much effort is required in commercial banks to ensure that electronic banking is fully welcomed if they are to improve their financial performance.

In conclusion therefore, all the objectives has positive and significant influence on the financial performance of PBUL

## 5.4 Recommendations

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

### 5.4.1 The relationship between E-funds transfer banking and the financial performance of PBUL

- Basing on the study findings, trust building in ICT infrastructures with clients need to be put on a primary concern by most of commercial banks that want their performance to improve under mobile banking. This can be done by ensuring that the system installed can ably provide updated information frequently to both the bank and the customers. PBUL managers should develop a system that provides up to date and relevant financial information with good user interface consistency in order to enhance trust

### 5.4.2 The relationship between telephone banking and the financial performance of PBUL

- Basing on the study findings, PBUL should ensure security and privacy on telephone services to avoid impersonation and fraud involved. This can be done by ensuing that telephone billing systems are made so personal and less entrenched. This can be enriched through a fingerprint technology system. Security features should be considered an important issue by the bank because internet banking users are more favorably 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.

### 5.4.3 The relationship between internet banking and the financial performance of PBUL

Basing on the study findings, creating awareness of online banking to the public through massive advertisement on radios, televisions and newspapers. This can be done by making

sure that customers both in urban and rural areas are called upon in different workshops and taught the importance of online banking. This improves the convenience of online banking and its high adoption and hence improved financial performance of a commercial bank.

### 5.5. Areas for further research

In future, researchers should replicate this study to cover the whole country. A study on the self-assessment system can also be carried out to determine its effectiveness on enhancing the performance of commercial banks. Further the study should also put into consideration the influence of other factors other than electronic banking on the performance of commercial banks in Uganda.

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## APPENDICES

## APPENDIX I:

## QUESTIONNAIRE FOR POST BANK STAFF

**INTRODUCTION**

Dear Respondent,

The researcher is a student from Uganda Martyrs University Uganda. She is undertaking a research to generate data and information on "*Electronic Banking and financial performance of commercial banks in Uganda; a case study of Post Bank Uganda Limited"*. You have been selected to participate in this study because the contribution you make to the electronic banking sector 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 b) Female

2. Age Category

a) 20-29, b) 30-39, c) 40-49, d) 50 and above

3. Highest level of education

a) Diploma, b) Bachelors degree, c) Masters degree d) Professional Qualification e) Others (specify) -------

4. Duration at Post Bank Uganda A) < 1 Year b) Between 1-2 Years c) Between 2-3 Years d) > 4 Years

5. Marital status

a) Single b) Married c) divorced d) Separated e) Widowed

**SECTION B: INDEPENDENT VARIABLE: USAGE OF ELECTRONIC BANKING**

**i) E-funds transfer**

**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 | PBUL has enough ATMs that can serve all clients | | | | | |
| 2 | PBUL has e-cheque services | | | | | |
| 3 | Our security at PBUL is not comprised by E-funds transfer | | | | | |
| 4 | PBUL has an arrangement of swapping money from one account to the other | | | | | |
| 5 | Cashless banking is part of the arrangements in Stanbic bank | | | | | |
| 6 | Our ATMs are always working 24hrs | | | | | |
| 7 | Cases of bank fraud have reduced as a result of ATM | | | | | |
| 8 | PBUL has debit cards for its clients | | | | | |
| 9 | PBUL has credit card system for its clients | | | | | |

**ii) 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**

| No. | Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1 | With PBUL, a customer can now bank his money using a cell-phone at home | | | | | |
| 2 | Wireless banking has increased in PBUL financial services | | | | | |
| 3 | PBUL 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 | | | | | |
| 6 | 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 PBUL | | | | | |
| 8 | PBUL has smart card systems in place | | | | | |
| 9 | Tele-banking in Stanbic allows customers to pay all their monthly bills | | | | | |
| 10 | PBUL has in place mobile banking for distant and busy customers | | | | | |

**iii) 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 | PBUL Allows intra-Banks Account to Account Transfer using internet | | | | | |
| 5 | PBUL 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 PBUL 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 PBUL | | | | | |

## SECTION C: DEPENDENT VARIABLE – FINANCIAL PERFORMANCE

**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 | Our bank has enough cash to meet its obligations effectively (as and when they fall due) | | | | | |
| 2 | All our loans are paid in time | | | | | |
| 3 | The Default level in our bank has reduced for the past three years | | | | | |
| 4 | The percentage of non-performing loans in our bank has been reducing consistently | | | | | |
| 5 | Our Return on Equity has increased for the past three years | | | | | |
| 6 | The bank's income increases every year | | | | | |
| 7 | Our net income supersedes our operating costs for the last 3years | | | | | |
| 8 | All bank loans are dully corrected | | | | | |
| 9 | The bank 's asset base has greatly increased over time | | | | | |
| 10 | Every year increases shareholder's equity | | | | | |

**THANK YOU FOR YOUR PARTICIPATION**

## APPENDIX II:

## 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 | 1000000 | 384 |

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

Note.—*N* is population size.

*S* is sample size.

## APPENDIX V:

## RELIABILITY ANALYSIS

### E-funds transfer Reliability Statistics

| Cronbach's Alpha | N of Items |
|---|---|
| .831 | 9 |

| | 1 | 2 | 3 | 4 | 5 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 |
| 2 | .802 | 1.000 | .802 | .707 | .707 | .802 | 1.000 | .802 | .707 | .707 |
| 3 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 |
| 4 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 |
| 5 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 |
| 6 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 |
| 7 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 |
| 8 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 |
| 9 | .802 | 1.000 | .802 | .707 | .707 | .802 | 1.000 | .802 | .707 | .707 |

### Telephone Banking Reliability Statistics

| Cronbach's Alpha | N of Items |
|---|---|
| .767 | 10 |

| | 1 | 2 | 3 | 4 | 5 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |
| 2 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 3 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 4 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 5 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 6 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |
| 7 | .802 | 1.000 | .802 | .707 | .707 | .802 | 1.000 | .802 | .707 | .707 | .802 |
| 8 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |
| 9 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 10 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |

**Internet Banking Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .786 | 10 |

| | **1** | **2** | **3** | **4** | **5** | **5** | **6** | **7** | **8** | **9** | **10** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 2 | .802 | 1.000 | .802 | .707 | .707 | .802 | 1.000 | .802 | .707 | .707 | .802 |
| 3 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |
| 4 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 5 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 6 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 7 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 8 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |
| 9 | .802 | 1.000 | .802 | .707 | .707 | .802 | 1.000 | .802 | .707 | .707 | .802 |
| 10 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |

**Internet Banking Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .767 | 10 |

| | **1** | **2** | **3** | **4** | **5** | **5** | **6** | **7** | **8** | **9** | **10** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 2 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 3 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 4 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 5 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 6 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 7 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 8 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 9 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 10 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |

**Financial Performance Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .767 | 10 |

| | **1** | **2** | **3** | **4** | **5** | **5** | **6** | **7** | **8** | **9** | **10** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |
| 2 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 3 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 4 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |
| 5 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 6 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |
| 7 | .802 | 1.000 | .802 | .707 | .707 | .802 | 1.000 | .802 | .707 | .707 | .802 |
| 8 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 | .802 | 1.000 | .756 | .945 | 1.000 |
| 9 | .756 | .707 | .756 | 1.000 | .500 | .756 | .707 | .756 | 1.000 | .500 | .756 |
| 10 | .945 | .707 | .945 | .500 | 1.000 | .945 | .707 | .945 | .500 | 1.000 | .945 |