# KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, GHANA

ASSESSMENT OF ELECTRONIC BANKING SERVICES IN COMMERCIAL BANKS
IN GHAHA: THE CASE OF UNIBANK BY NAANA POKUAA MINKAH B.A (HONS) CULTURE AND TOURISM)

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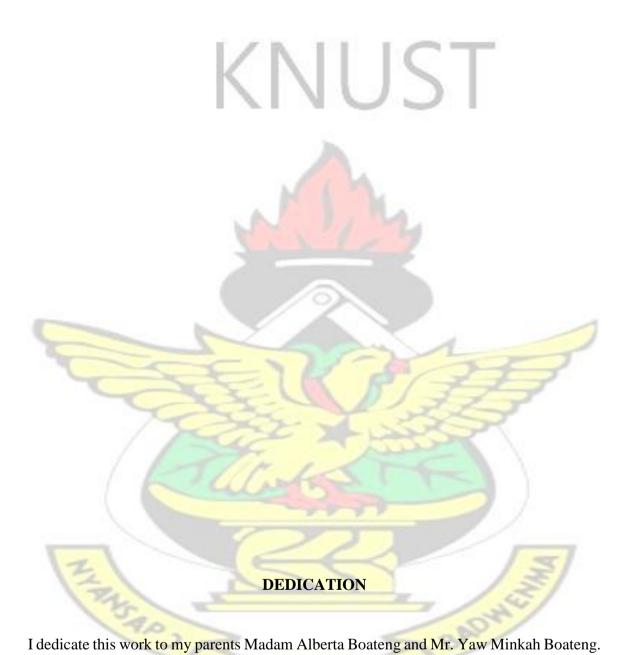
COLLEGE OF ART AND SOCIAL SCIENCES

# **DECLARATION**

I Naana Pokuaa Minkah hereby declare that this thesis is my own work toward the award of the Masters in Business Administration Degree and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgments has been made in the text.

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The purpose of the study is to assess electronic banking services in commercial banks in Ghana using uniBank as a case study. The study was basically a cross-sectional survey which used quantitative approach (structured questionnaires) to gather data and the results presented using figures and tables using SPSS (version 18. Data was collected from two hundred (200) respondents of UniBank. This was made up of 199 customers and 1 staff member.

The study identified thirteen (13) electronic banking services that are provided by
UniBank in the Kumasi Metropolis. They include Unimobile savings account, UniWEB,
UniALERT, UniCARD, Smart Deposit, UniBank Master Card, Debit Gold Card,
Standard Debit Card, Prepaid Card, Fast Pay, Fast Credit, Sika Collect and Automated
Teller Machine (ATM). About 80 percent of respondents used all the electronic banking
products except Smart deposit, prepaid card, Fast Credit and fast pay. Electronic banking
has benefited customers in areas such as making it easier for them to make business
transactions, control over finances, efficient management of finances, time saving,
convenience and privacy. The results indicate that the cost or charge for using electronic
banking and educational background of persons are some of the major determinants of
usage of electronic banking. Customers complained that electronic banking usage are
sometimes frustrating, poorly handled by service providers, slow to use and insecure
internet connections. The study recommends that management of banks should make

effort to bring electronic banking services to the doorstep of each and every one. Also, charges on electronic banking usage should be moderately priced to encourage non-users to develop the interest in using electronic banking.



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#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 Introduction

The world is changing rapidly to accommodate technology in all aspect of life and business. The rapid expansion of technology has inculcated into the lives of millions of people, the spirit of using technology in all activities. The United Nation's Conferences on Trade and Development (UNCTAD, 2004) reports that about 67 million people had access to technological facilities like the internet in 2003. Evidence from the World Bank Statistical report indicates an increase in the use of internet in Ghana since 2008 (World Bank, 2010). Internet access rate in North America was 9.5 percent; 26.3 percent in Europe; 39.5 percent in Asia; 3.5 percent in Africa; 2.9 percent in Middle East and 9.5 percent in Northern America and Caribbean in 2007 (Internet World Stats, 2008). In Australia, 57 percent had internet access in 2002 according to the Department of Communications, Information Technology and the Arts (DCITA, 2002).

Taking a retrospective view of the above discussion, it raises concern on the need for the banking industry to take advantage of the changing environment and introduce technology in their banking service.

Banking over the internet has attracted increasing attention from bankers and other financial services, businessmen both in the advanced and developing countries. Globally, about one thousand and eighteen (1018) million people had access to the internet in 2005 (IWS, 2006). Since the new millennium, electronic banking has experienced explosive growth in many countries and has transformed traditional banking practice. The effect of electronic banking on businesses has

been discussed by Bradley and Stewart (2002) and Bauer et al., (2004) as a paradigm shift in the marketing of banking products. In the adoption and usage of electronic banking, financial institutions seek to lower operational costs, improve and retain customer banking services and increase profit.

The development of electronic banking services actually changed the distribution channel structure in the banking sector. Mols (1999) states that electronic banking is a new distribution channel which offers efficiency and convenience than traditional branch banking. By offering electronic banking services, banks can save cost by downsizing their service staff which will contribute to maximizing their profits (Mols, 1999).

Over the past decade, researchers in the financial sector have swayed their study of electronic banking to their beneficial and profitable outcomes (Sohail, & Shanmugham, 2003). It is argued that the nature of electronic banking poses many challenges such as the need to improve electronic banking applications, the distorting of market boundaries, the violation of industrial barriers and the entrance of new competitors (Sohail, & Shanmugham, 2003). A study by Licht and Moch (1999) however, indicates that there could be situations where the effects of IT on labour productivity may not always yield improved results. Using a sample of banking services, they argued that the introduction of electronic services will not always improve financial performance. According to them, bank performance depended more on managerial know-how than on competence in specific technologies. Current studies for example, Shu and Strassmann (2005) also support the argument that electronic banking has no significant effects on banks" performance. Thus, it seems there is no conclusive argument on whether electronic banking contributes more to profitability of banks or not. This study therefore seeks to assess the benefits and challenges of electronic banking taking UniBank as the case study.

#### 1.2 Statement of the Research Problem

The entry of several banking institutions in Ghana has resulted in intense competition. The competitive nature of the banking environments in Ghana has made most banking institutions adopt certain strategies to take advantage of the system and improve on their performance by retaining the satisfaction of their customers. One of such strategies is the adoption of electronic banking services. Studies have shown that electronic banking services improve profitability of commercial banks. For example, a study conducted by Addae-Korankye (2014) on the impact of e-banking on customer service and profitability of banks in Ghana shows that electronic banking improves the financial performance of banks. Other studies like Almazari & Siam (2008), Ayrga (2011), Tan & Teo (2000) reveal that electronic banking improves banks performance by providing wider availability and possibility to reach more customers. This implies that the contribution of electronic banking to banks" profitability is determined by other factors such as customers" perception and use of the service and the extent to which the technology meets their demand.

For sometime now, in Ghana, electronic banking has been a major factor in the competitive banking environment. Every bank in Ghana has employed some feature of electronic banking to improve its performance and firm-up its competitive advantage.

Whether consumers are patronizing electronic banking is another issue confronting banks. The level of electronic readiness of Ghanaian commodity is low. According to the Ghana Statistical Service (2014) only 7.8 percent of the population 12 years and older had access to internet. Norudin et al., (2012) identified that poor service quality by the service providers" influences electronic banking patronage and profitability of banks in Ghana and it is one of the main challenges affecting financial performance of banks in the country.

The impact of electronic banking on the performance and operations of banks in Ghana has therefore not been fully established (Addae-Korankye, 2014:61). Hence, this study seeks to assess the level patronage of electronic banking services and the impact of these services on both customers and commercial banks using uniBank as a case study.

# 1.3 Research objectives

# 1.3.2 Aim of the study

The main objective of this study is to assess the factors influencing customers" usage of electronic banking services. The specific objectives are as follows;

- 1. To identify electronic banking services provided by uniBank.
- 2. To examine the benefits of electronic banking services to the bank and customers.
- 3. To analyse the challenges of electronic banking services to the bank and customers.

# 1.4 Research questions

The study is guided by the following research questions.

- 1. What types of electronic banking services are provided by uniBank?
- 2. What benefits does electronic banking offer to uniBank and customers?
- 3. What challenges do electronic banking services pose to uniBank and customers?

#### Justification of the study

Electronic Banking has been viewed as the most effective and efficient way of transforming traditional banking practice globally. It represents a paradigm shift in marketing and facilitates new ways to collaborate and communicate (Bauer et al., 2004). Despite the recent remarkable successes in electronic banking in Ghana, there is more to promote non-cash banking systems since a reliable and efficient payment system is crucial

to the orderly operation of a nation's banking and financial system. In the light of the overwhelming contribution of electronic banking in improving banking services in Ghana, and with its attendance problem of low patronage, any study especially those that focus on the need to promote patronage of electronic banking is definitely justifiable.

The study will serve as a source of data for researchers in the banking sector. It will provide data for students and academics on the need to continuously adopting electronic banking systems. Other researchers can build upon the findings of the research. Again, the research can serve as a source of reference for academics in the same area.

Finally, the recommendations of the study can be adopted to improve on the usage of electronic banking in all banking transactions. Policy makers in the banking sector can use the findings and recommendations as empirical justification for their decisions.

### 1.6 Scope of the study

The study focused on the geographical scope and the contextual scope. The geographical scope is the uniBank-Ghana. The contextual scope is to study the benefits and challenges associated with the use of electronic banking products. While there are many emerging types of electronic banking schemes, the study focused on those electronic banking services provided by the bank such as Automated Teller Machines (ATMs), SMS, Credit card and debit card, etc.

# 1.7 Organization of the study

The research is organised into five chapters. The first chapter provides the introduction of the study; comprising the study background, statement of the problem, research questions, objectives of the study, scope of the study, and organisation of the report.

Chapter two is a review of relevant literature related to the study.

Chapter three presents the research approach and methodology. It describes the research design, study setting, population and sampling techniques employed in carrying out the study. Chapter four looks at the analysis of the data collected from the field.

Finally, Chapter five focuses on the major findings of study. Based on the findings, appropriate recommendations are given and the chapter ends with a conclusion to the entire study.



#### CHAPTER TWO REVIEW OF RELATED LITERATURE

#### 2.1 Introduction

This chapter presents a review of relevant literature consulted for the study. It discusses of researches obtained from articles, textbooks, journals and other sources of information relevant to this study. The chapter also presents the works that have been done by other researchers considered relevant for the study. Issues discussed include: the concept of electronic banking; history of electronic banking; types of electronic banking services; electronic banking in Ghana; benefits of electronic banking and challenges of electronic banking.

# 2.2 The Concept of electronic banking

Banks have utilized electronic channels to undertake financial operations with both local and worldwide clients. At present, banks are generally utilizing electronic channels to get directions and convey their products to their clients. In spite of the fact that the scope of administrations banks have over their products fluctuate broadly in substance, this type of managing an account is for the most part considered as one of the most effective administrative tools in banking(Azouzi, 2009). The meaning of electronic banking changes among specialists. (Daniel, 1999). The meaning, used as part of this study, is based on the Basel board of trustees" report which characterized it as the management of account items and administrations through electronic channels (Basel Advisory Group, 2003). Such items and administrations can incorporate stock-taking, record administration, procurement of gadget, electronic bill installment, and the procurement of different items and administrations, for instance, electronic cash (Basel Advisory

Group, 2003). Electronic banking is an umbrella term for the procedure by which a client may exchange money electronically without going by a block and-mortar foundation. The

accompanying terms all allude to some type of keeping money electronically: (PC) managing an account, Internet saving money, virtual saving money, web saving money, home saving money and remote electronic saving money. PC keeping money and Internet or web managing an account is the most habitually utilized services.

Electronic management of account has advantages for both banks and clients. For banks, this is seen as a system weapon which; help them to accomplish targets. Moreover, utilizing electronic administrations can minimize expenditure on expense of assets, which a required account administrations (Jayawardhena and Foley, 2000). From the clients' perspective, Aladwani, (2001) found that keeping money electronically provides give faster, less demanding and more dependable services to clients. Nonetheless, clients are still reluctant to utilize electronic management of accounts, in light of the fact that they are concerned with security issues, and they may not have adequate capacity to manage electronic means of saving money (Ayrga, 2011). In simple terms, e-saving infers management of account items through electronic conveyance channels.

PC saving money is a type of internet managing an account that empowers clients to execute bank exchanges from a PC by means of a modem. In most PC managing an account wanders, the bank offers the client an exclusive money related programming program that permits the client to perform budgetary exchanges from his or her home PC.

#### 2.3 History of Electronic Banking

While money related establishments made moves to actualize e-banking in the mid1990s, numerous purchasers were reluctant to direct financial exchanges over the web. It took across the board selection of electronic trade, taking into account trailblazing organizations, for example, America Online, Amazon.com and eBay, to make the thought

of paying for things e broad. By 2000, 80 percent of U.S. banks offered ebanking (Karen et al, 2001).

Customer use grew slowly. In 2000, Bank of America became the first bank to top 3 million online banking customers, more than 20 percent of its customer base. In comparison, larger national institutions, such as Citigroup claimed 2.2 million online relationships globally, while J.P. Morgan Chase estimated it had more than 750,000 online banking customers (Karen et al, 2001).

The use of electronic banking started in the 1960s with the beginning of the use of counter automation where bills from bank branches were sent to a center office in the form of classified papers. According Abor (2005) in the late 1960s, office automation devices were the main forms of electronic and communication technologies used by banks. Telephones and telex were used in addition to facilitate its activities and become efficient in meeting their customers" demand and satisfaction. These devices were used for decades as the main technological information for transacting business.

In the 1980s, Automated Teller Machine (ATM), credit and debit cards started on a pilot basis. Competition was strengthened and the use of personal computer (PC) became popular.

Banks in Ghana started using personal computers to service their customers. Through this technological change, bankers began to network their branches thereby expanding their coverage. Barclays Bank and Standard Chartered Bank were the first two banks to use the personal computer and networking. This changed the banking landscape in the country (Abor, 2005).

In the 1990s, Banks in Ghana realised the full potential of electronic banking. This replaced the traditional banking system which was characterised with long queue and paper work. Customers also realised the benefits of using these devices in doing business with banks. Most banking institutions in Ghana after realising the need to sustain their customers changed from the traditional (old) ways of doing business with their customers to a more technological way of providing fast and convenient services. With the growing market for technology in banking, many banking institutions in Ghana adopted electronic banking systems in doing business with their customers (Abor, 2005). All these were done to improve their service delivery and also to make profit. Table 1 below shows the summary of history of electronic banking. The Automated Teller Machine (ATM) was the most widely used electronic banking device in Ghana around the 1990s (Abor, 2005). For example, in 1995, the Trust Bank Ghana, installed its first

ATM. After some few years, most of the banks like the Ghana Commercial Bank, Agricultural Development Bank used the ATM. By 2001, five (5) banks were using the ATM in Ghana. The ATM has been the most successful delivery medium for consumer banking in Ghana. Customers consider it as important in their choice of banks, and banks that delayed the implementation of their ATM systems, have suffered irreparably (Abor, 2005).

Table 1: History of electronic banking

Period	Period	Feature
190	1	
First period: counter (back	1960s	During this stage data and bills from bank branches
) automation	W	were sent to a center office in the form of classified
	)	SANE
Second period: counter	1970 s	Bank recorded electronically operations in the
(front) automation		presence of customer. Data transferring among grand
		computer networks had done effectively. In this

Third period: connecting	1980 s	Customer connects to his account data through
customers to their accounts		telephone, ATM, credit card or personal computer,
Period fourth: system	1990s	All bank operation was done electronically. In this
unification & connect	to now	period, information technology gained root in the

Source: adopted from Alireza & Boostani (2011)

## 2.4 Types of electronic banking services

Currently, there are various types of electronic banking services used by the banking institutions across the world. These include telephone banking, SMS, ATM, personal computer banking, branch networking, electronic purse and internet banking among others as discussed below.

# 2.4.1 Telephone Banking

Telephone Banking is a service provided by banks, which allows its customers to transact banking business over the telephone. It is a form of technological device that deliver financial services to bank customers. The customer dial a touchtone telephone connected to an automated system of the bank. It is normally done through Automated Voice Response (AVR) technology (Agabonifo et a.l, 2012). Telephone Banking provides good services to customers and improves services of Banks. It provides convenience, expand access and saves time. This becomes beneficial to customers in using telephone banking. The cost of delivering telephone-based service is cost saving than those of branch based services. (Karjauloto, 2001).

# 2.4.2 Personal Computer Banking

The Personal computer banking also known as home banking is another electronic banking device used by the banks to satisfy their needs. It is a type of device that helps customers to access information about their accounts details on their computers through the internet network. Once access is gained, the customer can perform a lot of retail banking functions (Abor, 2005). It is used to initiate payment to a payee. Personal computer banking can be performed using the telephone and Interactive Voice Response (IVR). The IVR is a software application that makes use of both touch-tone keypad and voice telephone input selection and ensures that response is received by way of fax, voice, email, call-back or other media. The system allows customers to access their accounts on the computer with the help of software installed on their personal computers (Abor, 2004). Personal computer banking reduces cost, increases speed and improves flexibility of business transactions (Balachandher et al., 2001).

#### 2.4.3 Branch Networking

Networking of branches is the computerization and inter-connecting of geographically scattered stand-alone bank branches, into one unified system in the form of a Wide Area Network (WAN) or Enterprise Network (EN) for the creating and sharing of consolidated customer information/records. It offers quicker rate of inter-branch transactions as the consequence of distance and time are eliminated. With the several networked branches serving the customer populace as one system, there is simulated division of labour among bank branches with its associated positive impact on productivity among the branches. Furthermore, as it curtails customer travel distance to bank branches it offers more time for customers" productive activities (Abor, 2005).

#### 2.4.4 Automated Teller Machines (ATMs)

Automated Teller Machines is an electronic banking device which permit customers to enter into the book keeping system with a plastic card containing a Personal Identification Number (PIN). It offers several retail banking services to customers and provides a wide range of services, such as making deposits, funds transfer between two or more accounts and bill payments (Abort, 2004). It can be accessed by entering the PIN into the computer terminal linked to the bank"s computerised records (Rose, 1999).

#### 2.4.5 Electronic Purses/Wallets

The Electronic purse is made up of two components, namely; the electronic purse that store numbers and electronic purse that stores card numbers and cash. The first component stores credit card and debit card information, passwords, membership cards, and health information. The second component store digital cash, which has been transferred from a credit card, debit card or virtual cheque inside their e-wallets (Agabonifo et al., 2012).

# 2.4.6 Electronic Funds Transfer at Point of Sale (EFTPoS)

It is an on-line system that allows customers to make purchases from their accounts at points of sale. These sales points use debit cards to activate the fund transfer processes. Most Banks have increased their productivity through the use of Electronic Funds

Transfer at Point of Sale. This is because it aids customers to make shopping at the point of sales without holding money. Moreover, the system continues after banking hours, hence continual productivity for the bank even after banking hours. It also saves customers time and energy in getting to bank branches or ATMs for cash withdrawals which can be harnessed into other productive activities (Dauda, 2009).

# 2.4.6 Short Message Service (SMS) Banking

Short Message Service (SMS) banking involved the use of phone in texting and receiving information from service providers (banks) to customers. When the client wants to receive information about his/her account balance, a message is sent from the clients phone to the bank which processes it and answers the client's request by SMS. A customer can also automatically receive information about his account balance from the bank without even requesting for it. Information sent on request mostly concerns current interest rates or currency exchange rates. The use of phone banking is easy for banks because it is publicly accessible information that needs no protection. A client however can request information about the balance in his account, which is not public information and must be protected when it is provided. Passwords are used for this purpose or technologies based on the principle of an electronic key (Adriana, 2006).

#### 2.4.7 Internet Banking

Internet Banking implies, doing business with customers through the use of internet. It is a form of services provided by Banks to their customers to be used in their houses. According to Rotchanakitumnuai and Speece (2003) internet Banking allows customers to have direct access to their financial information and to undertake financial transactions. It helps Banks to create more branches, thereby increasing coverage. This is evidenced in the United States of America and other countries. A model of this is the Electronic Courtyard developed by the Global Payment System Visa and the US software firm Worlds Inc which allow customers to check account balances, transfer funds and apply for loans. It uses visa remote banking subsidiary, visa interactive, to link banks with customers and provide secure technology for the safety of account data transferred (Agboola, 2006).

#### 2.4.8 Debit Card and Credit Card Transactions

Debit cards and credit cards payment and purchase transactions allows a customer to purchase or pay with the debit or credit card without necessary going to the bank. It can be executed at a store business, online or by phone. The use of credit and debit cards for transfers ensures quick and easy means of transacting business so far as there is enough money in the account. The use of these cards involves providing information about ones business location (FTC Facts, 2012).

#### 2.4.9 Smart Cards

The Smart Card is an electronic banking device which is used by customers in transacting business with their bankers. It is a plastic card with a computer chip inserted into it that stores information about the customer. Smart cards are used in the health sector, the banking sector, entertainment and transportation Smart Card Basic. The smart card improves the security and convenience of transactions (Agabonifo et al, 2012).

#### 2.4.10 Mail Banking

Mail banking is another electronic banking service that makes it possible to communicate with banks by electronic mail or e-mail. The most frequently used service is sending account statements to the client"s mailbox upon request. The customer creates an e-mail account (yahoo, Gmail, Google account, MSN etc) with the bank for transactions. The e-mail is used purposely for banking transactions and not used for more complex operations (Adriana, 2006).

#### 2.4.11 Electronic Cheques

Electronic cheques can be substituted as paper work. The only difference between paper and electronic cheques are the dematerialization of the payment instrument which is passed on via computer networks like Internet in the later technology (Rudl, 2012). It involves the use of internet to make cheque payments. The system involves the customer filling out a form using his/her phone or personal computer and send to the service provider. The information send then goes through a transaction service for payment to be effected.

### 2.4.12 Electronic Check Conversion

This type of electronic banking converts paper check into an electronic payment in a store or when a company receives a check in the mail (FTC Facts, 2012). The use of the electronic check conversion involves the customer and the bank or cashier. It doesn"t involve the customer going to the bank to make transactions. The customer gives his/her check to the cashier in his house/store, then the check is run through an electronic system that captures your banking information and the amount of the check. The customer signs a receipt and keeps a copy for records sake. After the transaction, the check is cancelled by the cashier to make voided. The cashier sends the information from the check (but not the check itself) to your bank or other financial institution, and the funds are transferred into the merchant"s account (FTC Facts, 2012).

#### 2.4.13 Digital Person-to-Person Payments

This electronic banking device works with the internet using ones email address or mobile phone number to send money from bank accounts. It involves registration with the service producer. Most of the providers allow users to move a limited amount of money around the world. Companies offering this device payment services include MasterCard, VISA card etc (Agabonifo et al., 2012).

# 2.4.14 Electronic Payment Systems

Electronic Payment System is an electronic banking device device that is used by most Banks to make payments on behalf of customers" request. It is used to make direct payment through electronic means (Humphrey et al., 2001). The system allows bills to be paid directly from bank accounts, without being present at the bank, and without the need of writing and mailing cheque.

Various forms of electronic banking devices have been mentioned. The kinds of electronic banking innovations mostly used by rural banks in Ghana include SMS banking, Money Gram, Western Union Money Transfer, I-trans (Apex Money Transfer), and phone banking. The study is designed to investigate into the effects of these electronic banking services on the performance of banks in Ghana.

# 2.5 Electronic banking in Ghana

The banking industry in Ghana is experiencing quick development with the liberalization of the monetary division by the Bank of Ghana and positive financial environment (Adams2009). With this, most banks are getting up to speed with the expansion and innovation of ideas about keeping money electronically. In this manner, the commonest types of electronic innovations utilized were mostly office mechanization gadgets. This incorporates phones, telex and copy. These were utilized to accelerate the procedure of serving customers. For a considerable length of time, they remained the fundamental procedure for executing bank business (Abor 2004). Mechanical advancement combined with accessibility of web administrations in Ghana resulted in banks in Ghana organizing their branches and procurement of administration items. Due to completion, all banks in Ghana are presently providing different types of e-management of account. For example, a report by (Abor 2004) demonstrated that Barclays Bank (Ghana) Limited and Standard

Chartered Bank (Ghana.) Limited spearheaded this critical electronic revolution, which changed the management of accounts in the country.

Ghanaian Banks have presented different e-saving money cards. For example, in May, 1993, Social Security Bank, now Societe Generale, introduced the first money card. Prior to the, year 2001, Standard Chartered Bank dispatched the first ever platinum card in Ghana. A consortium of three (3) banks (Ecobank, Merchant Bank and The Trust Bank) presented a further advancement in electronic cards in November 2001, called the "ECard". This card can be used online so customer can use it to track and adjust in their records anytime (Abor 2004).

# 2.6 Benefits of electronic banking

Today, e-banking has turned into a profitable area of business with most banks venturing into it. Customers consider it as an advantageous, safe, and dependable method of managing their accounts. In addition, financiers use it as an aggressive edge and a strategy to proficiently and viably extend their business past geological barriers

#### .2.6.1 Benefits to banks

The presentation of electronic banking has enhanced the performance of numerous banks over the globe. It has served to encourage competition in the nature of services rendered by banks. Banks are now investing hugely in electronic products to be abreast with current trends. (Dauda. 2009). One of the greatest impacts on account administration is that clients can access their records directly online without going by the bank (Agboola, 2001).

As indicated by Pikkarainen et al., (2004), the utilization of electronic banking lowers expense structure of banks than the customary conveyance channels. Wadie (2011) argues that the advantages of electronic banking included effectiveness in client administration.

Bradely and Stewart (2010) also specified that, the utilization of electronic products in banking decreases cost and supports the dissemination of information to clients.

Also, the internet permits banks to explore new market in light of the fact that there are no geographic limits with the use of the internet. The internet likewise provides better opportunities to banks that are in their growing stages to expand their clientele as it offers a level playing field to all.

Additionally, banks can turn out to be more efficient than with the use of the internet as it offers a system that uses less paper work.

The internet also provides customers with the rare opportunity accessing numerous services that may be offered at their branches. Customers may not need to visit their branches to have access to services such as account balance, statement of accounts, transfer of funds etc.

#### 2.6.2 Benefit to Customers

Karen et al (2001) argue that, an advantage of the use of electronic banking services to clients is that they can access their account information without physically going to the bank. Purchasers everywhere throughout the world have access to their records 24 hours a day. Karen et al (2001) contends that electronic banking has also made it possible for clients to access full services from their branches even if such services are not offered at their branches. They can also check their records at whatever point they have to,

regardless of whether the bank is closed for business or not.

Electronic banking offers security to customers as they may not have to carry large amounts of money when travelling from one place to another to do business.

Customers can also pay bills online. This spares both time and energy (Turban and King, 2003). It also money gives client the control over almost every part of dealing with financial transactions. Customers can, buy and sell Securities, check stock market information, check currency rates, check balances, see which checks are cleared, transfer money and view transaction history. The best advantage is that Internet managing an account is free. The second enormous advantage is better rates for the client.

### 2.7 Challenges of E-banking

Banks have been conveying electronic administrations to customers and organizations remotely for a considerable length of time. Electronic trusts exchange and corporate money administration frameworks are openly available worldwide. Despite the noteworthy advantages of managing money electronically, it conveys some challenges.

Among the challenges are cost components in the use of electronic banking. Banks have to spend huge amounts of money in the acquisition and updates of electronic products. Apart from these, banks would have to spend money in training employees and educating customers on the management of these products (BCBS, 2001).

The Internet is ubiquitous and global by nature. It is an open network accessible from anywhere in the world by unknown parties, with routing of messages through unknown locations and via fast evolving wireless devices. Therefore, it significantly magnifies the importance of security controls, customer authentication techniques, data protection, audit trail procedures, and customer privacy standards (BCBS, 2001). Other E-banking related problems are user error, bad internet connections, access problems and security issues. Most of these problems happen less to outweigh its benefits.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter shows the procedures followed to conduct the research. According to Saunders (2007), research methodology assists researchers to analyse methods indicating their limitations, and identify their assumptions and consequences and relate their potentialities to research advances. The chapter presents the setting for the study, design and approach as well as the population and sampling procedures. Again, the methods of data collection, sources of data, ethical considerations are outlined in this chapter.

**3.2 Study Setting** uniBank was used as the site for this study. The bank, which fully owned by Ghanaians was incorporated in December 1997 to undertake banking business. Its vision is to be the leading and preferred Bank, offering comprehensive financial solutions to their customers in a professional, caring, responsive and profitable way. The Bank has also won several awards in the areas of Customer Care, Advisory Services and Short-term lending (uniBank, n.d).

The bank has seven main branches in the Kumasi Metropolis. These branches are at Adum, Tafo, Kejetia, Asokwa, Suame, Ahodwo and KNUST campus.

Among the services the bank offers include Small and Medium Scale (SME) Banking, Retail Banking, Treasury Services, Trade Banking, Remittances and Customer and Asset Finance.

#### 3.3 Research design

# **3.3.1 Survey**

This study adopted the survey design or descriptive as the study design. Since this study involves data collection from participants on the field, where the responses are tabulated

and converted into percentages, it becomes appropriate to use survey as the study design (, Leedy & Ormrod, 2002).

#### 3.3.2 Quantitative Approach

This study used quantitative data because the researcher aimed at seeking explanations and predictions that will establish, confirm, or validate the relationships between electronic banking products at uniBank and their usage by customers.

#### 3.4 Population of the Study

Two population groups participated in the study. They are the staff of uniBank and customers to the bank. Key staff from the bank (officers in charge of electronic banking services) formed one group of population for this study while customers who transact business with the bank in the form of savings or deposits, loans etc formed the population.

The next section explains how the sample size was calculated from the population.

#### 3.5 Sample size

Sampling is the process of selecting respondents from a population such that results could be representative of the population. (Sekaran, 2000). There are various ways in determining the sample size. According to Puopiel (2014), these ways include: intuitive method, one-third method, rule of thumb and mathematical methods. The intuitive method (thus the researcher 's judgment based on comparison with other similar works was used to choose a sample size) was used to determine the sample size, a sample size of 200 respondents. The total number of customers from the four uniBank branches (Adum, Kejetia, Tafo and Suame,) from which data was collected is 5765. Based on this, the researcher used the intuitive method to select 199 customers and 1 staff member for the study.

#### 3.6 Sampling methods

The study used purposive sampling method to select one key informant from the bank for interview. Relevant data such as the financial statements and the number of customers who have subscribed to electronic banking services cannot be obtained from any staff of the bank. Hence, the study purposively selected key staff members who could provide the needed information

In addition, simple random sampling was employed in selecting the second group of respondents (customers). Customers were selected from four branches of the bank namely Adum branch, Kejetia branch, Tafo branch and Suame branch. A list of customers of each of the four bank branches was obtained. The total number of customers in each of the four branches include: Adum (2, 021); Kejetia (1,731); Tafo (1,151) and Suame (862).

Names obtained from each branch were typed onto a piece of paper and cut out into individual names. These individual names were folded and put in a box. They were then picked randomly till the sample size for each branch was obtained. Table 2 below shows the number of respondents selected from each branch.

**Table 2: Distribution of respondents** 

<b>Branch</b>	Sample size	Bank Staff
Adum	70	1 3
<mark>Kejetia</mark>	60	344
Tafo	40	BAN
Suame	30	10
Total	199	1

Source: Author"s construct, 2015

#### 3.7 Source of Data

Two sources of are used in research. These are primary and secondary data. However, primary data were used for this study. Data collected data from participants" from the field formed the basis for analyses and discussion in chapter four of this study. Secondary information used formed the basis for developing literature reviews in chapter two.

Table 3. below summarizes primary data, sources and survey instrument used for this study.

**Table 3: Data needs and Sources** 

Unit of Enquiry (Data Sources)	Category of Data	Survey instrument	Number of sample respondents
Key informant from □ the bank	Electronic banking service provided to customer Benefits of electronic banking suggestions	Questionnaires	1
Customers	Satisfaction on electronic banking services by the bank suggestions	100	199
Total	Mir 1	4	200

Source: Author"s Construct, 2015

## 3.8 Data Collection Instruments

#### 3.8.1 Questionnaire

The researcher used questionnaires to collect data for the study. According to Saunders et al., (2009) the use of questionnaire in any study provides precise information useful for exploration as well as confirmation.- These, among other reasons provided the basis for the adoption of questionnaires as a data collection instrument for this study.

The questionnaires were administered by the researcher with the help of other people whom were trained and briefed about the rationale behind the study. Close- ended questionnaires were used to collect data from the respondents.

#### 3.8.2 Mode of communicating to respondents

The predominant language used by most people in the study (Ashanti region) is the Asante "Twi" language. Thus, the study used the "Twi" dialect as the main tool for communicating with the customers. Respondents" familiarity with the language allowed fruitful interaction. The English Language was used as the medium of communication for the staff of the bank.

#### 3.8.1 Ethical Issues

The study too into consideration a number of ethical issues. The researcher sought the consent of informants before interviews begun. Again, the researcher informed participants about the purpose of the study and ensured them of the confidentiality of their responses. A letter was sent to the Board of Directors of the Bank to seek for their permission to use the bank's information. Permission was granted before data like the financial statements and the number of customer that have subscribed to the electronic banking services were give.

#### 3.9 Validity and reliability of data

Validity in research refers to whether a research instrument measures what in intended to measure Saunders et al. (2009). Reliability on the other hand, indicates consistency across research and different projects (Gibbs, 2007). To ensure validity and reliability of data, the researcher checked the transcripts to make sure that they do not contain obvious mistakes. Moreover, the researcher ensured that questionnaires were consistent with research objectives. Again, the study conducted pre-test interview before the actual data collection.

The respondents were selected customers and staff at Ahodwo and Asokwa branches of UniBank.

#### 3.10 Methods of data analysis

The responses elicited were edited and collated. The questionnaires were coded for easy referral and entered into the Statistical Package for Social Sciences (SPSS) version 21 software. The software was used to generate frequency tables. The Microsoft Excel software was used in addition to generate charts. Data was analyzed using descriptive statistics such as percentages and frequencies.

#### **CHAPTER FOUR**

#### DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

#### 4.1 Introduction

This chapter seeks to analyze data collected from respondents. A sample size of two hundred (200) made of one hundred and ninety - nine (199) customers and an ICT manager from uniBank was used.

#### 4.2 Demographic Characteristics of Respondents

The study sought to identify respondents by their demographic characteristics to determine the gender, age, experience and academic qualification of selected respondents to determine their influence on their the usage of electronic banking services. Studies have found that demographic attributes are important determinants of consumer adoption (Bertaut and Haliassos 2006).

**Table 4 Age Distribution of Respondent** 

				Cumulative
	Frequency	Percent	Valid Percent	Percent
Valid Below 25	20	10.1	10.1	10.1
26-35	18	9.0	9.0	19.1
36-45	77	38.7	38.7	57.8
46-55	64	32.2	32.2	89.9
Above 55	20	10.1	10.1	100.0
Total	199	100.0	100.0	

Table 4 indicates the age distribution of the study respondents. This study shows that (77) 38.7% of the sample were aged between 36 to 45 years and (64) 32.2% aged between 46 to 55 years. Furthermore, (20) 10.1% were below 25 years, (20)10.1% were also aged above 55 years the remaining 9% were 26 to 35 years. The finding also gives an indication that majority of respondents (more than 60%) utilizing electronic banking services were between ages 36 to 55. This is expected as this group constitute the working group who earn income and subsequently have reasons to utilize banking services including electronic products.

Male Female

67%

**Figure 1 Gender Distributions of Respondents** 

Figure 1 shows the gender distribution of respondents in this study. The data reveals that out of a sample size of two hundred (200) respondents, males formed two thirds (67%) whilst females were only one third (33%) of the sample size. This instrument was necessary in finding out which gender was predominant among customers who use electronic products from uniBank Limited. These findings which revealed a larger proportion of electronic banking users being males could possibly confirm studies indicating that males are more electronic savvy as compared to females (Hilbert, 2011; Kay, 2007).

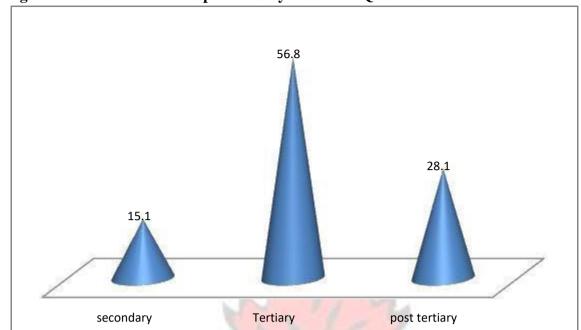


Figure 2 Distributions of Respondents by Academic Qualification

Figure 2 indicates academic qualification of respondents. The study shows that most customers (56.8%) have had some form of tertiary education, 28.1% have had post tertiary education (i.e., education beyond first degree) and the remaining 15.1% have had only secondary school level education. This finding indicated high level of education amongst customers of uniBank who patronize the electronic banking product. This confirms

Fonchamnya"s (2012) claim that people with high educational attainment may have an aptitude for computers, possess good information processing skills and therefore very likely to subscribe to internet banking and therefore a relationship between formal education and adoption is propounded (Wadie, 2012).

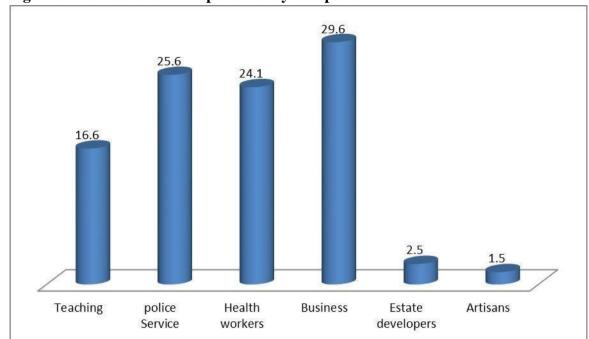


Figure 3 Distributions of Respondents by occupation

Figure 3 shows the distributions of respondents based on their occupation. The study shows that 29.6 % of customers were men and women doing retail businesses, 25% were in the police service, 24.1% were health workers, 16.6% were in the teaching service, 2.5% were estate developers and the remaining 1.5% were artisans. The studies revealed that majority of the customers were into business activities. This is not surprising as Electronic banking plays crucial role in business transactions. Through electronic banking such as internet banking customer can purchase items on line, pay bills and transfer money to suppliers.

#### 4.3 Electronic banking services provided by uniBank Limited.

#### 4.3.1 Electronic banking services provided by uniBank (response from ICT manager)

In line with research question one, the researcher wanted to know the type of electronic banking services that the public/customers of the UniBank were enjoying or intend to

enjoy. Responses from the I.C.T manager of the bank revealed the thirteen (13) electronic banking services that are provided by UniBank in the Kumasi Metropolis.

They include Unimobile savings account, UniWEB, uniALERT, uniCARD, Smart Deposit, UniBank Master Card, Debit Gold Card, Standard Debit Card, Prepaid Card, Fast Pay, Fast Credit, Sika Collect and Automated Teller Machine (ATM). However, the study revealed that majority representing about 65 % of the customer enjoyed using electronic banking product such as uniALERT, uniCARD /ATM, UniBank Master Card, Debit Gold Card, and Standard Debit Card.

#### 4.3.2 Customer subscription rate of electronic banking services

The researcher sought to find out how many customers subscribe to any form of electronic banking products from uniBank. Figure 5 below shows the results.

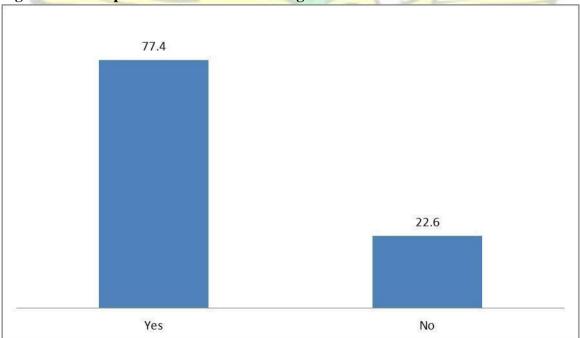


Figure 4 Subscription for electronic banking services

Source: Field Survey, August, 2015

Figure 4 shows responses to questionnaire item on whether customers subscribe to electronic banking device from uniBank. The study revealed that, significant number of customers patronized electronic banking device from uniBank. This was attested to by 77.4% of respondents. This finding shows that majority of the respondents subscribe to electronic banking in most of their transactions with the bank.

These findings may indicate the huge interest of uniBank customers in electronic banking services offered by the bank. It again could attest to the level of satisfaction of services from these products.

Among others, the study sought to find out the reason for the non-subscription of electronic banking services by some of the customers. While some cited the charges on electronic products, others cited security concerns and their avowed preference for traditional banking products. Some however cited inadequate technical knowledge and the difficulties they are likely to encounter in the use of these products.

The study argues that adoption of electronic banking services may have a lot to do with banking policies like the security and cost of products. Thus, it is the responsibility of management of the bank to respond to these if they wish to improve performance and remain sustainable in the competitive banking environment.

#### Electronic banking products subscribed by customers

The study sought to identify the types of electronic banking products from uniBank customers subscribe to. The table below illustrates the findings.

Table 5 Electronic banking service customers subscribed

		Valid	Cumulative
Frequency	Percent	Percent	Percent

Valid	uniCARD / ATM	54	27.1	27.1	27.1
	UniWEB	5	2.5	2.5	29.6
	uniALERT	80	40.2	40.2	69.8
	UniBank Master Card	15	7.5	7.5	77.4
	Smart Deposit	9	4.5	4.5	81.9
	Unimobile savings account	11	5.5	5.5	87.4
	Fast Pay	7	3.5	3.5	91.0
	Sika Collect	10	5.0	5.0	96.0
	Fast Credit	8	4.0	4.0	100.0
	Total	199	100.0	100.0	

Table 5 shows uniALERT was cited by 40.2% of the customers as being the electronic products they subscribe to. Also, 27.1% customers subscribed to uniCARD / ATM, 7.5% customers subscribed to UniBank Master Card, 5.5% customers subscribed to Unimobile savings account, 5% customers subscribed to Sika Collect, 4.5% customers subscribed to

Smart Deposit, 4% customers subscribed to Fast Credit, 3.5% customers subscribed to Fast Pay and the remaining 2.5% customers subscribed to UniWEB.

Table 6 How customers were informed about this type of electronic banking facility provided by the bank

<u> </u>	provided by the bank				
	Ex.	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Through the media	69	34.7	34.7	34.7
	Through the banks	49	24.6	24.6	59.3
	Through friends	27	13.6	13.6	72.9

Through relatives	54	27.1	27.1	100.0
Total	199	100.0	100.0	

Table 6 shows responses to the questionnaire instrument on how customers were informed about the type of electronic banking facility provided by the bank. The study shows that 34.7% of customers were informed about this type of electronic banking facility provided by the bank through media advertisement. However, 27.1% were through relatives, 24.6% were through the banks staff and significant 13.6% were through friends. The study discovered that customers became aware of these electronic banking services through the media. The bank therefore needs to intensify the media awareness of electronic banking to encourage more customers to subscribe to the electronic banking.

#### 4.4.3 Pricing policies on electronic products and usage

The study again sought to find out the influence of uniBank"s pricing policies on customers" patronage of on electronic banking services. The study used variables such as charging fee per month for using electronic banking only, transaction fee only, fee per month and transaction fee and free usage (no charge for both transaction and monthly usage).

A likert scale of very likely, likely, neutral, unlikely and very unlikely was used in measuring customers" responses. The table below illustrates findings.

Table 7 Effect of uniBank 's pricing policies on the

VU U% N% L% VL

% %

- 1 Fee per month for using electronic banking only 2.5 8.5 12.1 52.3 24.6
- 2 Transaction fee only 1 4.5 9 43.2 42.2
- 3 Fee per month and transaction fee 6.5 4.5 6 33.7 49.2
- 4 Free (no charge for both transaction and monthly 7 9.5 17.1 32.7 37.2 usage)

### N = 199; 1= Very Unlikely, 2=Unlikely, 3= Neutral, 4= Likely, 5= Very Likely

As indicated in item 1 of table 7 respondents were asked the likelihood of using electronic banking if "fee per month only" was used as a basis for charging users of electronic banking services. The study revealed that 52.3% of customers were likely to use the electronic banking on condition the bank charges fee per month for using electronic banking only. However 24.6% of the customers were very likely to use electronic banking services, 12.1% were neutral in their responses, 8.5% were unlikely to use electronic banking services and the remaining 2.5% were very unlikely to use electronic banking services. The findings discovered that, 76% of the customers are likely to use electronic banking if the bank charges on fee per month only for using electronic banking.

As indicated in item 2 of table 7 the respondents were asked about the likelihood of subscribing to electronic banking if the bank charges transaction fee only. The study shows that the majority representing 85.4% of customers were likely to use the electronic banking on condition the bank charges were based on transaction fee only.

Again, as indicated in item 3 of table 7, the respondents were asked about the likelihood of using electronic banking services if the bank charges were based on both fee per month and transaction fee. The study shows that 82.9% of customers were likely to use the electronic banking on condition the bank charges were based on fee per month and transaction fee.

Also, as indicated in item 4 of table 7, the respondents were asked about the likelihood of using electronic banking if there was no charge for the usage of electronic banking products. The study shows that 69% of customers were likely to use the electronic banking on condition the bank charges free (no charge for both transaction and monthly usage).

In short, all respondents have expressed positive opinion that they have intention of using electron banking. Presently customers have intention to continue using electronic banking and strongly recommend to others to use any of the electronic banking in the near future.

Table 8 Effect of uniBank 's pricing policies on the use electronic banking

	VU	U %	N%	L%	VL
	%				<b>%</b>
1 Fee per month for using electronic banking only	2.5	8.5	12.1	52.3	24.6
2 Transaction fee only	1	4.5	9	43.2	42.2
3 Fee per month and transaction fee	6.5	4.5	6	33.7	49.2
4 Free (no charge for both transaction and monthly usage)	7	9.5	17.1	32.7	37.2

N = 199; 1= Very Unlikely, 2=Unlikely, 3= Neutral, 4= Likely, 5= Very Likely
As indicated in item 1 of table 8 respondents were asked the likelihood of using electronic
banking if "fee per month only" was used as a basis for charging users of electronic
banking services. The study revealed that 52.3% of customers were likely to use the
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4.4 Benefits of electronic banking services to the customers at uniBank limited Research question two sought to examine the benefits of electronic banking services to customers at uniBank limited. Respondents were asked to indicate the benefits of electronic banking by indicating whether they strongly disagreed, disagreed, were neutral, agreed or, strongly agreed to statements indicating benefits of electronic banking (See appendix). The table below illustrates responses from customers.

#### Tables 9 Electronic banking gives customers greater control over finances

				Cumulative
	Frequency	Percent	Valid Percent	Percent
Valid Strongly Disagree	15	7.5	7.5	7.5
Disagree	12	6.0	6.0	13.6
Neutral	28	14.1	14.1	27.6
Agree	77	38.7	38.7	66.3
Strongly Agree	67	33.7	33.7	100.0
Total	199	100.0	100.0	

Table 9 shows responses to the questionnaire instrument on whether electronic banking gives customers greater control over finances. The study shows that 38.7% of customers strongly agreed to the statement.. Furthermore, 33.7% strongly agreed whilst 14.1% were neutral. However, 6.0% disagreed whilst a further 7.5% strongly disagreed.

Table 10 Electronic banking manages finances more efficiently

/ 60	11.10			Cumulative
	Frequency	Percent	Valid Percent	Percent
Valid Strongly Disagree	9	4.5	4.5	4.5
Disagree	16	8.0	8.0	12.6
Neutral	21	10.6	10.6	23.1
Agr <mark>ee</mark>	71	35.7	35.7	58.8
Strongly Agree	82	41.2	41.2	100.0
Total	199	100.0	100.0	

Source: Field Survey, August, 2015

Table 10 shows responses to the questionnaire instrument on electronic banking allows customers to manage their finances more efficiently. The study shows that 41.2% of

respondents strongly agree that electronic banking allows customers to manage their finances more efficiently was identified as benefit of electronic banking services to customers at uniBank limited. Further 35.7% agreed whilst 10.6% were neutral. However, 8% disagreed and a further 4.5% strongly disagreed. In connection with this analysis, customers can conveniently schedule payments to any business or individuals.

Table 11 Electronic banking saves customer time to deposit and withdraw cash from their accounts

		N		Cumulative
	Frequency	Percent	Valid Percent	Percent
Valid Strongly Disagree	6	3.0	3.0	3.0
Disagree	15	7.5	7.5	10.6
Neutral	40	20.1	20.1	30.7
Agree	66	33.2	33.2	63.8
Strongly Agree	72	36.2	36.2	100.0
Total	199	100.0	100.0	3

Source: Field Survey, August, 2015

Table 11 shows responses to the questionnaire instrument on whether electronic banking saves customer time to deposit and withdraw cash from their accounts. The study showed that 36.2% of respondents strongly agreed electronic banking saves customer time to deposit and withdraw cash from their accounts. 33.2% agree and

20.1% are neutral. Furthermore, 7.5% disagreed whilst a further 3% strongly disagreed. The findings were in line with Karjauloto, (2001) telephone Banking provides good services to customers and improved services of Banks. Electronic banking authorizes specific deposit. The cost of delivering telephone-based service is cost saving than those of branch based services; this becomes beneficial to banks. Moreover, the system does not

shut off even after banking hours, thereby saving customers time, energy and high productivity. (Dauda, 2009).

Table 12 Customers enjoy more privacy with electronic banking

		LICT		Cumulative
	Frequency	Percent	Valid Percent	Percent
Valid Strongly Disagree	9	4.5	4.5	4.5
Disagree	12	6.0	6.0	10.6
Neutral	27	13.6	13.6	24.1
Agree	72	36.2	36.2	60.3
Strongly Agree	79	39.7	39.7	100.0
Total	199	100.0	100.0	

Source: Field Survey, August, 2015

Table 12 shows responses to the questionnaire instrument on whether customers enjoy more privacy with electronic banking. The study shows that 39.7% of respondents strongly agreed that customers enjoyed more privacy with electronic banking was identify as one of the benefits of electronic banking services to customers at uniBank limited. However 36.2% agree and 3% are uncertain. However, 17% disagreed whilst a further 9% strongly disagreed. The findings confirm Adriana, (2006) statement in relation to client however can request information about the balance in his account, which is not public information and must be protected when it is provided. Passwords are used for this purpose or technologies based on the principle of an electronic key.

Electronic-banking offers visibility into banking activities, which makes it harder for under-the-table or fraudulent activities to occur.

Table 13 Electronic banking helps business to grow

				Cumulative
	Frequency	Percent	Valid Percent	Percent
Valid Strongly Disagree	13	6.5	6.5	6.5
Disagree	15	7.5	7.5	14.1
Neutral	21	10.6	10.6	24.6
Agree	75	37.7	37.7	62.3
Strongly Agree	75	37.7	37.7	100.0
Total	199	100.0	100.0	

Table 13 shows responses to the questionnaire instrument on whether electronic banking helps business to grow. The study shows that 75.4% of respondents strongly agree and agree electronic banking helps business to grow was seen as a benefit of electronic banking services to customers at uniBank limited. However 10.6% were neutral, 7.5% disagreed whilst a further 6.5% strongly disagrees. Increased banking productivity results from the use of electronic banking to service customers shopping payment requirements instead of clerical duties in handling cheques and cash withdrawals for shopping. Furthermore, the system continues after banking hours and hence continual productivity for the bank even after banking hours. It also saves customers" time and energy in getting to bank branches or ATMs for cash withdrawals which can be coupled into other productive activities.

Table 14 show responses to the questionnaire instrument on whether electronic banking reduces customers" expenditure on banking. The study shows that 52.3% of respondents agree that electronic banking reduced customers expenditure on banking an identified as benefits of electronic banking services to customers at uniBank limited. 24.6% strongly agreed and 12.1% were neutral. However, 8.5% disagreed whilst a further 2.5% strongly

disagrees. Electronic banking makes it easy for customers to transact at the comforts of their homes and this reduces travelling expenses. In line with the findings. Balachandher et al., (2001) opined that, personal computer or electronic banking reduces cost, increases speed and improves flexibility of business transactions.

Table14 Electronic banking reduces customers expenses

				Cumulative
	Frequency	Percent	Valid Percent	Percent
Valid Strongly Disagree	5	2.5	2.5	2.5
Disagree	17	8.5	8.5	11.1
Neutral	24	12.1	12.1	23.1
Agree	104	52.3	52.3	75.4
Strongly Agree	49	24.6	24.6	100.0
Total	199	100.0	100.0	

Source: Field Survey, August, 2015

Table 15 shows responses to the questionnaire instrument on whether customers have the ability to use the facilities without difficulties. The study showed that 43.7% of respondents agreed that customers have the ability to use the facilities without difficulties was one of the benefits of electronic banking services to customers at uniBank limited. 41.7% strongly agreed and 9.0% were neutral. However, 4.5% disagreed whilst a further 1.0% strongly disagree.

Table 15 customers have the ability to use the facilities without difficulties

Cumulative

	Frequency	Percent	Valid Percent	Percent
Valid Strongly Disagree	2	1.0	1.0	1.0
Disagree	9	4.5	4.5	5.5
Neutral	18	9.0	9.0	14.6
Agree	87	43.7	43.7	58.3
Strongly Agree	83	41.7	41.7	100.0
Total	199	100.0	100.0	

Customers access electronic banking without much difficulty in terms of withdrawal and other relevant business transactions. It makes it easy to check accounts balances, withdraw cash and get a mini statement. UniBank Ghana limited allows customers to their access account 24/7 at convenient location across Kumasi metropolis.

#### 4.4.1 Benefits of electronic banking services to uniBank limited.

The ICT manager revealed three major benefits of electronic banking to UniBank. They were seen the areas of queue management, speed and efficiency and improvement in banking performance.

A major benefit that has accrued to the bank since the introduction of these electronic banking services has been in the area of queue management as mentioned by the ICT manager. The IT expect highlighted that the introduction of the ATM has helped reduced the number of customers that come to the banking floor. They can now transact with the bank without physically going to the bank. The availability of numerous ATM at vantage points in and around the metropolis enables customers to withdraw money at any time of the day without having contact with the bank"s staffs. Most customers mostly went to the

counter the check their balances, but with the introduction of the SMS Banking, they no longer do so and sit at the comfort of their home to access their bank balance.

Furthermore, he identified benefit accruing to the bank is in the area of speed and efficiency. The ICT manager intimated that due to the introduction of these electronic banking services, they are able to serve more customers within a short time. He argued that their branches are networked and hence easy to connect to other branches and the national office. They can now access information of customers within the shortest possible time. They also added that they are able to clear cheques on time which was one major problem before the introduction of electronic banking services.

He also observed that the introduction of electronic banking services has obviously improved the banks performance. He concluded that 80% of the bank transactions were performed through electronic banking.

However, electronic banking monitors spending and account activities with ease as well as staying current, with instant transaction activity reports send through uniAlert

Finally, the benefit of electronic banking in providing accurate, relevant and up-to date information, flexibility and easy accessibility with convenience and assisting to share the experience with bank and other customers more efficiently tend to influence the bank customers to strongly recommend to others to use electronic banking in their business transactions.

# 4.5 Challenges of electronic banking services to the bank and the customers at uniBank Limited.

Research question three sought to identify the challenge of electronic banking services to the bank and the customers at uniBank Limited. The researcher identified challenges such as using electronic banking requires effort and much time, using electronic banking can be frustrating, electronic banking are poorly handle by service providers, electronic banking services was slow to use, electronic banking is highly not secured, poor internet connection with electronic banking services and electronic banking such as the ATM card may get stuck in the machine or jam up.

Table 16 Challenges of electronic banking to customers

Challenges to customer	SD%	D %	N%	A%	SA%
1 Using Electronic banking requires effort and much time		2.7	5.3	49.3	37.3
2 Using Electronic banking can be frustrating		13.3	16.0	44.0	26.7
3 Electronic banking are poorly handle by service providers	6.7	2.7	5.3	36.0	49.3
4 It is slow to use electronic banking services 10.7 4	6.7	38.	7 40		
5 Electronic banking is highly not secured 4.2 5	15	35	40		
6 Poor internet connection with electronic banking 5. services	.8 7.5	10	40	36	.7

<sup>7</sup> Electronic banking such as the ATM card may get 2.5 7.5 11.7 50.8 27.5 stuck in the machine or jam up

# N =199: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Table 16 shows responses to the questionnaire instrument on challenges of electronic banking to customers. As indicated in item 1 of table 16, the respondents asked whether using electronic banking requires effort and much time was challenge of electronic banking to customers. The study shows that 49.3% of respondents agreed that using electronic banking require effort and much time was identified as a challenge confronting electronic banking to customers. 37.3% strongly agreed and 5.3% were uncertain. However, a significant 2.7% disagreed whilst a further 5.3% strongly disagrees. This was an indication that, customers must be familiar with their pin number or codes as well as the technicalities involved in using electronic banking.

As indicated in item 2 of table 16, the respondents asked whether using electronic banking can be frustrating was one of the challenges antagonizing electronic banking to customers. The study shows that 44% of respondents agreed that one of the challenges concerning electronic banking was using electronic banking can be frustrating, 29.7% strongly agreed while significant 16% were uncertain. However, a 13.3% disagrees. The study revealed network problems make customers frustrated during bank transaction and derails effectiveness and efficiency of electronic banking.

As indicated in item 3 of table 16, the respondents asked whether electronic banking are poorly handle by service providers was a challenge of electronic banking to customers. The study shows that 49.3% of respondents strongly agree Electronic banking are poorly handle by service providers was a challenge of electronic banking to customers. 36% agree and 5.3% are uncertain. However, 4% disagrees whilst a further 6.7% strongly disagrees. The research revealed that, electronic banking was at risk of being compromised by cyber hackers so strong regulation was a key in data protection and security.

As indicated in item 4 of table 16, the respondents asked whether electronic banking was slow to use indicated challenge of electronic banking to customers. The study shows that 40% of respondents strongly agree that electronic banking was slow to use indicated challenge of electronic banking to customers. 38.7% agree and 6.7% are uncertain. However, 2.7% disagrees whilst a further10.7% strongly disagrees. The consumer site, choice of branch and the need to prove your identity as a customer slows down the effective of electronic banking. Sometimes the situation could be attributed to poor network system.

As indicated in item 5 of table 16, the study shows that 40% of respondents strongly agree electronic banking is highly not secured was a challenge of electronic banking to customers. 35% agree and 15% were uncertain. However, 5 % disagrees whilst a further

#### 4.2% strongly disagrees.

As indicated in item 6 of table 16, the respondents asked whether Poor internet connection with electronic banking services was a Challenge of electronic banking to customers. The study shows that 40% of respondents agree that Poor internet connection with electronic banking services was a Challenge of electronic banking to customers. 36.7% strongly agree and 10% were uncertain. However, a significant of 7.5% disagrees whilst a further 5.8% strongly disagrees. The study revealed that, poor internet connection affect effectiveness and efficiency of electronic banking. This delays effective business transaction such as money transfers, payment of bills and withdrawal.

As indicated in item 7of table 16, the respondents asked whether Electronic banking such as the ATM card may get stuck in the machine or jam up was a Challenge of electronic banking to ATM card may get stuck in the machine or jam up was a Challenge of electronic banking to customers. 27.5% strongly agree and 11.7% were uncertain. However, a significant of 7.5% disagrees whilst a further 2.5% strongly disagrees. However, the ATM cars can get stuck in an ATM for two reasons, error in connection or delay in entering details. In relation to the argument, many researchers opined that, when customers spend more time on the machine, it can swallow the card which leads to some of the deficiencies in electronic banking.

#### 4.5.1 Challenges of electronic banking to uniBank

Research question three sought to identify the challenges of electronic banking services to uniBank Limited. A management member from the ICT section was asked to respond on the research questionnaire instrument on the challenges confronting the bank concerning electronic banking services. The ICT manager identified the following as challenges to electronic banking; lack of familiarity, cultural reluctance, security concerns, knowledge

of IT and electronic banking, input of wrong customer accounts numbers in to the database, fraud, bad network system and high cost associated with ICT investments. The ICT manager concluded that, 70% of the challenges to electronic banking were input of wrong customers" accounts numbers in to the database, and bad network system. The remaining 30% were the other challenges mentioned above.

In short the above challenges lead to dissatisfaction of customers concerning the usage of electronic banking and have negative effect on bank's productivity. The bank could lose more customers if such challenges are not catered for.

Figure 5. Would customer adopt a new form of Electronic Banking if the Bank introduced



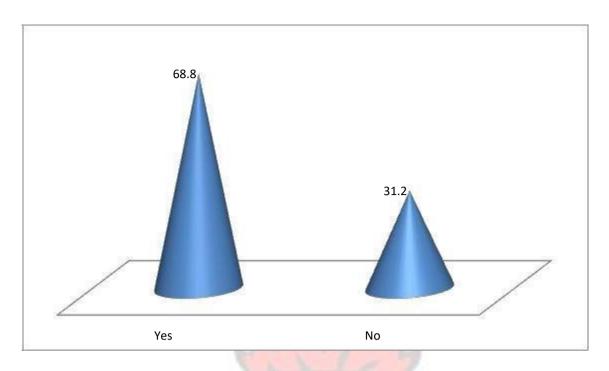


Figure 5 shows responses to questionnaire item on whether customers would adopt a new form of Electronic Banking if the Bank introduced. The study shows that customer would adopt a new form of Electronic Banking if the Bank introduced. This was attested to by majority of customers (137) representing 68.8% said yes and 62 customer representing 31.2% were no. This finding shows that customer are satisfied with the electronic banking service, they would adopt a new form of Electronic Banking if the

Bank introduced.

# KNUST



#### CHAPTER FIVE SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

#### 5.1 Introduction

This chapter presents the summary of the research findings, recommendations and conclusions.

KNUST

#### **5.2 Summary of Findings**

The study aimed at assessing electronic banking services in commercial banks in Ghana with a focus on uniBank Limited.

Research question one sought to identify electronic banking services provided by uniBank Limited. The study revealed that majority of the customers were business men and electronic banking plays crucial role in their business transactions. The study first sought to know if customers use any form of electronic banking device from uniBank. The research finding revealed that significant number of customers patronized electronic banking device from uniBank. The study revealed that 40.2% majority of the customers subscribed to the uniALERT. However Significant 27.1% of the customers at unibank subscribed to uniCARD / ATM. However the researcher wanted to know the type of electronic banking services that the public/customers of the UniBank were enjoying or intend to enjoy. I.C.T manager of the bank revealed the thirteen (13) electronic banking services that are provided by UniBank in the Kumasi Metropolis. They include Unimobile savings account, UniWEB, uniALERT, uniCARD, Smart Deposit, UniBank
Master Card, Debit Gold Card, Standard Debit Card, Prepaid Card, Fast Pay, Fast Credit, Sika Collect and Automated Teller Machine (ATM).

However, the study revealed that majority representing about 65 % of the customer enjoyed using electronic banking product such as uniALERT, uniCARD /ATM, UniBank Master Card, Debit Gold Card, and Standard Debit Card

Research question two sought to identify the benefits of electronic banking services to customers at uniBank limited. Among the benefits enumerated by customers include the fact that electronic banking provides some ease in the conduct of banking transactions; provides greater control and efficiency in the management of finances; they are timesaving devices; it allows some privacy in the conduct of businesses and helps businesses to grow. Finding revealed that majority representing 80% of customers strongly agreed to the above variables as the benefits associated with electronic banking.

Furthermore, the ICT manager revealed that electronic banking benefits the bank in queue management, speed and efficiency and improvement in banking performance.

Research question three sought to analyse the challenge of electronic banking services to the bank and the customers at uniBank Limited. The study identified challenges such as using electronic banking requires effort and much time, using electronic banking can be frustrating, electronic banking are poorly handle by service providers, electronic banking services was slow to use, electronic banking is highly not secured, poor internet connection with electronic banking services and electronic banking such as the ATM card may get stuck in the machine or jam up.

The findings concluded that, 70% of the challenges to electronic banking were input of wrong customers" accounts numbers in to the database, and bad network system. The remaining 30% were the other challenges mentioned above.

#### **5.3 Recommendations**

To ensure and improve the adoption and usage of more electronic banking services among its customers the following is recommended.

To increase the patronage of electronic banking services by the customers, it is recommended that the bank ensures that customers are giving the necessary education on the procedures on how to use the electronic banking services and how the system works. Since customers" decisions are also likely to be influenced by the media, it is recommended that adverts on radio stations, television stations and in newspapers should be intensified so as to win more customers attention about the existence and the patronage of these electronic banking services.

The banks should focus at improving security. Since more customers are willing to adopt electronic banking services when they feel protected and secured of not being fraud, it is recommended that the security of customers should be ensured by providing CCTV cameras around ATM machines.

Again, customers are likely to be influenced by bank staffs. It is therefore recommended that the bank improves its customer relations so as to build the trust in customers in their bid to increase and improve the patronage of the electronic banking services. The bank should therefore train their employees to be more effective and eliminate problems at banking points.

The bankers should also consider those in the low income group. This implies that bankers should lower the cost of acquiring and usage of these electronic banking services so as to win more customers. Effort of the banks to promote adoption of electronic baking through its reduced or free charges would help influence the attitudes of the public.

Finally, credit cards, debit cards and home banking were identified as electronic banking device which are less patronized by the public. It is there recommended that the bankers should promote its usage among its customers.

#### 5.4 Conclusion.

The aim of the study was assessment of electronic banking services in commercial banks in Ghana It also looked at the benefit of the service and the challenges customer face in the use. The study revealed thirteen (13) electronic banking services offered by UniBank in the Kumasi Metropolis. Out of these, three (3) were not used by any of the customer interviewed. These included Smart deposit, prepaid card, Fast Credit and fast pay. About 40 percent of customers used uniALERT. While 29% used uniCARD. The study revealed that electronic banking benefit customers and the bank in areas such as queue management, convenience and privacy, time savings, improvement in performance etc. customer are satisfied with the electronic banking service, they would adopt a new form of Electronic Banking if the Bank introduced. The bank needs to put relevant mechanisms in place to ensure effective sustainability of the various electronic banking products to yield more charges to maximize profit.

#### **REFERENCES**

- Abor, J. (2004). Technological Innovations and Banking in Ghana: An evaluation of customers" perceptions". *America Academy of Financial Management*, 1, 1-16. [Online] *Available at: http://www.financialcertified.com/armstrong.html* (Accessed on 19/06/2015)
- Abor, J. (2005). Technological Innovations and Banking in Ghana: An Evaluation of
  - Customers" Perceptions. African Journal of Finance and Management Vol 13, No 1 (2005)
- Acquah, P.A. (2007). Fifty Years of Central Banking in Ghana. Retrieved April 30, 2011, from <a href="http://www.bis.org/review/r0708206b.pdf">http://www.bis.org/review/r0708206b.pdf</a> (Accessed on 6th March, 2015).
- Adams AN, Lamptey AO (2009) Customer perceived value in internet banking in Ghana. Masters Thesis, Lulea University of Technology, Sweden and University of Education, Winneba, Ghana.
- Addae-Korankye, A. (2014). The Impact of E-Banking on Customer Service and Profitability of Banks in Ghana: Global *Journal of Commerce and Management Perspective*, Vol.3 (1):61-65
- Adriana, C. (2006). Forms of Electronic Banking. BIATEC, Volume XIV, th www.nbs.sk/\_img/Documents/BIATEC/BIA06\_06/22\_25.pdf (Accessed on 12 May 2015).
- Agboola, A. A (2006). Information and Communication Technology (ICT) in Banking Operations in Nigeria An Evaluation of Recent Experiences, in *Journal of Electronic Commerce in Organizations*.
- Aladwani, A. M. (2001). Online banking: a field study of drivers, development challenges, and expectations. *International Journal of Information Management*, 21(3), 213-225.

Alireza R and Boostani, Z. (2011). Barriers of Electronic Banking Development Study Case: Saman Bank, Interdisciplinary *Journal of Contemporary Research in Business*.

September 2011, Vol 3, No

Almazari, A. A. K., and Siam, A. Z. (2008). E-Banking: An Empirical Study on the Jordanian Commercial Banks. *Journal of King Abdul-Aziz University* 22(2), 3-26.

Alsheikh L., and Bojei, J., (2012). Customer's Perceived Value to Use Mobile Banking

Services. International Conference on Management, Behavioral Sciences and Economics Issues (ICMBSE'2012) Penang, Malaysia.

Alu, A.D (2002). Effect of information technology on customer services in the banking industry in Nigeria.

Appiah, A. and Agyemang F., (2006). Electronic Retail Payment Systems: User Acceptability and payment problems in Ghana. Schoolm of Management Business Adminitration. Blekinge Institute of Technology, Sweden

Aragba-Akpore, S. (1998): "The Backbone of Banks" Service Regeneration", Moneywatch,

July 22, p23.

Aragba-Akpore, S. (1998): "The Backbone of Banks" Service Regeneration", Money watch, July 22, p23.

Aragba-Akpore, S. (1998): "The Backbone of Banks" Service Regeneration", Money watch,

July 22, p23.

Asabere, N.Y., Opoku-Baah, R., & Odediyah. A.D. (2012). Measuring Standards and Service Quality of Automated Teller Machines (ATMs) in the Banking Industry of Ghana.

*International Journal of Information and Communication Technology Research*; Volume 2 No. 3, March 2012

- Ayrga, A. (2011). Is Mauritius Ready to E-Bank? From A Customer and Banking Perspective. *Journal of Internet Banking and Commerce*, 16(1).
- Ayrga, A. (2011). Is Mauritius Ready to E-Bank? From A Customer and Banking Perspective. *Journal of Internet Banking and Commerce*, 16(1).
- Azouzi ,D. (2009). The adoption of electronic banking in Tunisia: an exploratory study. *Journal of Internet Banking and Commerce*, 14(3), 1-11.
- Babbie, E. (2002). The basics f social research. Belmont, CA: Wadsworth Publishing. Balachandher Krishnan Guru, Santha Vaithilingam, Norhazlin Ismail, and Rajendra Prasad,
  - (2001) Electronic Banking in Malaysia: A Note on Evolution of Services and Consumer Reactions.
- Balachandher, K. G., Santha, V., Norazlin, I. & Prasad R., (2001). Electronic banking in Malaysia: a note on evolution of services and consumer reactions. *Journal of Internet Banking and Commerce*, vol. 5, no. 1.
- Basel Committee on Banking Supervision (2003). *Risk management principles for electronic banking*, Switzerland: Bank of International Settlements. Retrieved from <a href="http://www.bis.org/publ/bcbs98.pdf">http://www.bis.org/publ/bcbs98.pdf</a>.
- Bauer, H.H., Hammerschhmidt, T., (2004). Meeting the quality on e-banking portal.

  International Journal of Banks marketing Vol. 23 No 2 pp 153-175.
- Beccalli, E. (2007) Does IT investment improve bank performance? Evidence from Europe.
  - Journal of Banking and Finance, 31, 2205-2230.
- Bertaut, C., and Haliassos, M.. (2006). Credit Cards: Facts and Theories." The Economics of Consumer Credit. G. Bertola, R. Disney and C. Grant, eds. MIT Press, Apri
- Bradley, L. and Stewart, K. (2010). A Delphi study of the drivers and inhibitors of Internet banking. *The International Journal of Bank Marketing*, 20(6), 250-260.
- Bradlry, L and Stewart, K., (2002). A Delphi Study of the drivers and inhibitors of interknit banking. *International Journal of Bank Marketing*. Vol 20. N.6 Pp 250-260.

- Brynjolfsson, E. and Hitt, L.M. (2000), Beyond computation: information technology, organizational transformation and business performance. Journal of Economic Perspectives, 14(4): 23-48.
- Brynjolfsson, E. and Hitt, L.M. (2000), Beyond computation: information technology, organizational transformation and business performance. *Journal of Economic Perspectives*, 14(4): 23-48.
- Chen Y.H, Barnes S., (2007). Initial trust and online buyer behaviour. Ind. Manage. Data Syst. 107 (1), 21-36
- Daniel E, Storey C (1997) On-line banking: Strategic and Management Challenges Pergamon. PII: 4-5 (S0024-63010007).
- Daniel, E. (1999). Provision of electronic banking in the UK and the Republic of Ireland.

  International Journal of Bank Marketing, 17(2), 72-83.
- Dauda, Y. A (2009). Privatization Challenges and the Global Telecommunications Industry: Implication for Industrial Relations in Nigeria, *Nigerian Journal of Labour Law and Industrial Relations*, Vol. 3 No. 1 March.
- Dauda, Y. A (2009). Privatization Challenges and the Global Telecommunications Industry: Implication for Industrial Relations in Nigeria, *Nigerian Journal of Labour Law and Industrial Relations*, Vol. 3 No. 1 March.
- Economides, N. and Salop, S. (1992), Competition and integration among complements, and network market structure. *The Journal of Industrial Economics*, XL (1): 105-123.
- Economides, N. and Salop, S. (1992), Competition and integration among complements, and network market structure. *The Journal of Industrial Economics*, XL (1): 105123.
- Fonchamnyo, D,C., (2012), Customers" Perception of E-banking Adoption in Cameroon: An Empirical Assessment of an Extended TAM, *International Journal of Economics and Finance*; Vol. 5, No. 1; 2013,

- Frischtak, C. (1992) Banking automation and productivity change: The Brazilian experience. World Development, 20, 1769-1784.
- Frischtak, C. (1992) Banking automation and productivity change: The Brazilian experience. World Development, 20, 1769-1784.
- FTC Fact for Consumers (2012). Federal Trade Commission for the Consumer. Ftc.gov. Furst, K., Lang, W. and Nolle, D., (2002), Internet Banking, *Journal of Financial Services Research*, Vol. 22, pp. 95-117.
- Gartner, (2003). "Gartner Says Banks Must Focus on Online Financial Applications to Remain Competitive in 2003 and Beyond", Press Release, Gartner Group, February 20, 2003
- Ghana Sttistical Service (GSS, 2013). National Analytical Report: 2010 Population and Housing Census: Accra, 2013.
- Ghauri P., Gronhaug K., Kristianslund I., (1995). Research Methods in Business Studies:

  A Practical Guide 1st Ed Prentice Hall
- Hassanuddin, N.A., et al, (2012). Acceptance towards the Use of Internet Banking Services of Cooperative Bank, *International Journal of Academic Research in Business and Social Sciences*, March 2012, Vol. 2, No. 3.
- Hernandez J.M.C., Mazzon J.A., (2007). Adoption of internet banking: proposition and implementation of an integrated methodology approach, *International Journal*. *Banking Marketing*. 25 (2): 72-88
- Holden, K. & El-Bannany, M. (2004) Investment in information technology systems and other determinants of bank profitability in the UK. Applied Financial Economics, 14, 361-365.
- Holden, K. & El-Bannany, M. (2004) Investment in information technology systems and other determinants of bank profitability in the UK. Applied Financial Economics, 14, 361-365.
- Internet World Stats, (2008). Internet Usage Statistics Available at World Wide Web on 9 February 2006 at <a href="http://www.Internetworldstats.com/stats.htm">http://www.Internetworldstats.com/stats.htm</a> (Accessed on June, 2015)

- Jayawardhena, C., and Foley, P. (2000). Changes in the banking sector: the case of Internet banking in the UK. *Internet Research*, 10(1), 19-31
- Johnson, R. B. & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. Educational Researcher, 33(7), 14-26.
- Karen F., et al, (2001), Internet Banking: Developments and Prospects, Economic and Policy Analysis Working Paper 2000-9, September 2000, p 3.
- Karjaluoto, H. (2001). "Measuring attitudes towards Internet Banking: Empirical evidence from Finland", Proceedings of the European Marketing Academy Conference.Bergen, Norway. May, 8, 2001
- Kozak S. (2005), The role of information technology in the profit and cost efficiency improvements of the banking sector. *Journal of Academy of Business and Economics*,

February 2005.

- Kozak S. (2005), The role of information technology in the profit and cost efficiency improvements of the banking sector. Journal of Academy of Beccalli, E. (2007) Does IT investment improve bank performance? Evidence from Europe. *Journal of Banking and Finance*, 31, 2205-2230.
- Kwateng, K.O., Obiri-Yeboah, K. & Sarpong, F.N (2013). Emerging trends of Electronic Banking in Ghana. Journal of information and Knowledge Management, Vol.3(6), 2013
- Laukkamen, T, (2007). "Internet Vrs Mobile Banking: Comparing Customer Perception".

  Business Process Management Journal: Vol. 13, No. 6 Pp788-797.
- Lawrence E., Japhet and Tar U., (2010).Barriers to ecommerce in developing countries, Information, Society and Justice, Volume 3 No. 1, January 2010: pp 23-35 ISSN 1756-1078
- Leedy, P.D. & Ormrod, J.E. (2002).Practical Research: Planning and Design. th International edition (8 edn.). Pearson Educational International, Pearson Merrill Prentice Hall.

- Leow, H. B. (1999)., "New Distribution channels in banking services" *Bankers Journals Malaysia* No. 110, June 1999, p.48-56
- Licht, G. & Moch, D. (1999) Innovation and Information Technology in Services. *The Canadian Journal of Economics*, 32, 363-383
- Licht, G. & Moch, D. (1999) Innovation and Information Technology in Services. *The Canadian Journal of Economics*, 32, 363-383

Lichtenstein & Williamson (2006): Consumer Adoption of Internet Banking, Understanding Consumer Adoption Of Internet Banking: An Interpretive Study In The Australian Banking Context, *Journal of Electronic Commerce Research*, Vol 7, NO.2, 2006, p 53 Lichtenstein & Williamson (2006): Consumer Adoption of Internet Banking, Understanding Consumer Adoption Of Internet Banking: An Interpretive Study In The Australian Banking Context, Journal of Electronic Commerce Research, VOL 7, NO.2, 2006, p

53

Lockette A, Littler D (1997) The adoption of direct banking services. Journal of Marketing Management. 13:791-811.

th

- Marshall, C., and Rossman, G.B., (2006): Designing Qualitative research (4 ed.).

  Thousand Oaks, CA: Stage
- Mols, N.(1990) .The Behavioural Consequences of PC banking. *International Journal of Bank Marketing*, 16, 5, pp. 195-201.
- Morahan-Martin, J., (2002). "Women and the Internet: Promise and perils", CyberPsychology & Behavior, Vol. 3: 683-691,
- Nasim Z. H, (2010), Internet Banking: Understanding Consumer Adoption Rates Among Community Banks, Shantou University, Shantou, China
- Nimako, S.G., Gyamfi, N.K., & Wandaogou, A.M (2013). Effect of Internet Banking Service Quality on Customer Satisfaction: Evidence from Ghanaian Banking Industry:

- Research Journal of Social Sciences and Management, Volume: 03, Number: 04, August-2013
- Norudin, M., Nor A. H, Zalinawati A, and Noor H, (2012). Acceptance towards the Use of Internet Banking Services of Cooperative Bank. *International Journal of Academic Research in Business and Social Sciences* March 2012, Vol. 2, No. 3 (Pp 137).
- Obuobi, S. (2012). Current Trends in Ghana's Banking Industry: Influence of Globalization and a Growing Middle-Income Class, RS Insights, November, 2012
- Ofori-Dwumfuo, G.O. & Dankwah, B.A. (2013). Adopting Internet Banking in Ghana. Current Research Journal of Social Sciences 5(4): 143-151, 2013
- Osei, K.A., & Harvey, S.K (2011). Investments in Information Technology (IT) and Bank Business Performance in Ghana. *International Journal of Economics and Finance*Vol. 3, No. 2; May 2011
- Ovia, J. (2001), Internet banking: practices and potentials in Nigeria Retrieved from http://www.zenithbank.com/internet\_practices.pdf accessed on June 11, 2015
- Pikkarrainen, T., Pikkarrainen, K., Karjaluoto, H. and Pahnila, S. (2004), "Consumer acceptance of online banking: an extension of the technology acceptance model",
  - Internet Research, Vol. 14(3), p. 224-35.
- Puopiel, F. (2014). Writing a research project work/ thesis. A step-by-step approach. Gillbt Press, Tamale.
- Rotchanakitumnuai, S. and Speece, M. (2003) "Barriers to Internet banking adoption: A qualitative study among corporate customers in Thailand", *International Journal of Bank Marketing*, Vol. 21, No 6, pp. 312-323
- Rudl, C. (2012). Payment Options for Online Shoppers, retrieved on 20th September, 2012 from th http://www.entrepreneur.com/article/58384 (Accessed on 25 May, 2015)
- Saatcioglu, K., Stallaert, J. and Whinston A.B (2001) "Design of a Financial Portal," Communications of the ACM, Vol. 44, No. 5: 33-38.
- Sathye, M. (1999). "Adoption of Internet Banking in Australia consumers: An empirical envestigation", *International Journal of Bank Marketing*. 17:7, 324-334

Saunders M., Lewis P. and Thornhill A. 2009, Research methods for business Students, Prentince Hall, Pearson Education Limited 5th edition

th

- Saunders, M., (2007). Research methods for Business students, 4 edition, London. Prentice Hall.
- Sekaran, U. (2000) Research Methods for Business A Skill Building Approach, 4th Edition Shu, W. and Strassmann, P. A. (2005), Does information technology provide banks with
  - profit? Information & Management, 42: 781-787.
- Shu, W. and Strassmann, P. A. (2005), Does information technology provide banks with profit? Information & Management, 42: 781-787.
- Stare, M., Jaklic, A. & Kotnik, P. (2006) Exploiting ICT potential in service firms in transition economies. Service Industries Journal, 26, 287-302.
- Stare, M., Jaklic, A. & Kotnik, P. (2006) Exploiting ICT potential in service firms in transition economies. *Service Industries Journal*, 26, 287-302.
- Strassman, P. (1990). The business value of computers. New Canaan: Information Economics press.
- Sullivan, R. J. (2000), How has the adoption of Internet Banking affected Performance and Risk at Banks? A look at Internet Banking in the 10th Federal Reserve District, Federal Reserve Bank of Kansas City Financial Industry Perspective, pp. 1-16.
- Sullivan, R. J. (2000). How has the adoption of Internet Banking affected Performance and Risk at Banks? A look at Internet Banking in the 10th Federal Reserve District, Federal Reserve Bank of Kansas City Financial Industry Perspective, pp. 1-16.
- Turban, E. and King, D. (2003). Introduction to E-Commerce. Prentice Hall, Pearson Education
- Turban, E. and King, D. (2003). Introduction to E-Commerce. Prentice Hall, Pearson Education

- United National Conferences on Trade and Development (UNCTAD, 2004). "Ecommerce and Development Report 2004". United Nation, Ney York and Geneva.
- Wadie N. (2011), Factors Influencing the Adoption of Internet Banking in Tunisia,

  \*International Journal of Business and Management, Vol. 6, No. 8; August 2011, p
  143-14
- Wadie N. (2011), Factors Influencing the Adoption of Internet Banking in Tunisia,

  International Journal of Business and Management, Vol. 6, No. 8; August 2011,
  p 143-147
- Wadie N. (2011). Factors Influencing the Adoption of Internet Banking in Tunisia,
  International Journal of Business and Management, Vol. 6, No. 8; August 2011,
  p 143-147
- Wadie N. (2011). Factors Influencing the Adoption of Internet Banking in Tunisia,

  International Journal of Business and Management, Vol. 6, No. 8; August 2011,
  p 143-147
- Whiteley D (2000) e-Commerce: Strategy, Technologies and Applications, McGraw Hill,

Maidenhead.

Whiteley D (2000). E-Commerce: Strategy, Technologies and Applications, McGraw Hill,

Maidenhead.

- William, A., Uwaezuoke, J. and Ntim-Avisi, S. (2005). Computerisation/Automation of Banking System in Ghana, The Way Forward. The School of Business, Malardalen Hogskolan (Sweden).
- Woldie, A., Hinson, R., Iddrisu, H. and Boateng, R. (2008). Internet Banking: An initial look at Ghanaian bank consumer perceptions. Banks and Bank Systems: Vol. 3,Issue 3, 200

World Bank (2010). Internet Users (per 100 people), Ghana: The World Bank, Accessed th on 18 March, 2013 from <a href="http://data.worldbank.org/indicator/IT.NET.USER.P2?page=2&cid=GPD\_44">http://data.worldbank.org/indicator/IT.NET.USER.P2?page=2&cid=GPD\_44</a> (Accessed on 14 June, 2015)

Xanthidis, D, David Nicholas, (2004) Evaluating internet usage and ecommerce growth in Greece, Aslib Proceedings, Vol. 56 Iss: 6, pp.356 – 366

Yassaman M., (2009). Reasons Barring Customers from Using Internet Banking in Iran:
An Integrated Approach Based On Means End Chains And Segmentation, A
Masters In Marketing And Electronic Commerce Thesis Submitted To The Lulea
University Of Technology

Yasuharu (2003), UKAI, The effect of information system in Banking services, 2003 **APPENDIX I:** 

**Questionnaires** 

#### HOUSEHOLD SURVEY QUESTIONNAIRE

"ASSESSMENT OF ELECTRONIC BANKING SERVICES IN COMMERCIAL BANKS

IN GHAHA: THE CASE OF UNIBANK"

This survey instrument is designed to seek empirical data for the conduct of the above stated purely academic exercise. This will be submitted for the partial fulfillment of a Masters in Business Administration. Your support and co-operation is very much anticipated and your responses will be treated with maximum confidentiality.

**DEMOGRAPHIC CHARACTERISTICS** (*Please*, <u>tick</u> (√) the answer that you consider appropriate)

1.	What is your gender?	1. [ ] Male	2. [ ] Female
2.	What is your age?	JANE	
a.	[ ] 18-30 years		
b.	[ ] 31 - 40  years		
c.	[ ] 41 - 50  years		
d.	[ ] 51 - 60  and above		

e.	[ ] 60 years and above
3.	What is your highest educational attainment?  a. [ ] Basic Level  b. [ ] Secondary  c. [ ] Tertiary  d. [ ] Professional qualification
4.	How many years have you been doing business with uniBank?  a. [ ] 1-3 year  b. [ ] 4-6 years  c. [ ] 7-9 years  d. [ ] 10-12 years
	e. [] Others (please specify)
5 what is	s your occupation
a. Teach	ing [ ] b. Health service [ ] c. police service [ ] d. [ ] business
f. est	ate developer [ ] artisans [ ]
USAGE	OF ELECTRONIC BANKING
5	Do you use any form of electronic banking device from uniBank?  a) [] Yes b) [] No
may	If you have not subscribed to electronic banking services from uniBank I know the reason?
	Do you intent to use any form of electronic banking device from uniBank?  a) [ ] Yes b) [ ] No
a) [ ]ui b) [ ] U	which of the following electronic banking service have you subscribed?  Multiple esponse is allowed)  niCARD / ATM  UniWEB
c) []u	niALERT

d)	[ ]Unimobile savings account
e)	[ ] Smart Deposit
f)	[ ] UniBank Master Card
g)	[ ] Debit Gold Card
h)	[ ] Standard Debit Card
i)	[ ] Prepaid Card
j)	[ ] Fast Pay
k)	[ ] Fast Credit
1)	[ ] Sika Collect
	9. How did you get to know about this type of electronic banking facility provided by
the	bank?
	a) [] Through the media
	b) [] Through the banks staff
	c) [] Through friends
	d) [] Through relatives
	e) [] Others (Specify)
	10 How likely would you use electronic banking if the bank charges

(Check where applicable)	11 0			1	
Contract of the contract of th	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
Fee per month for using electronic	No.	2			
banking only			N. X.		
Transaction fee only		X			
Fee per month and transaction fee			) /		
Free (no charge for both transaction and	2227	_	10.1		
monthly usage)			_		

# BENEFITS OF ELECTRONIC BANKING USAGE

11. Please indicate your opinion that best describe how you perceive the following electronic banking activities; (Check where applicable)

	Reasons	Strongly	Disagree	Neutral	Agree	Strongly
	SA	Disagree	)			Agree
1	Electronic banking makes it easier for me to conduct my banking transactions					
-						
2	Electronic banking gives me greater					
	control over my finances					

3	Electronic banking allows me to			
	manage my finances more			
	efficiently			
4	It saves me time to deposit and			
	withdraw cash from my accounts			
5	I enjoy more privacy with electronic			
	banking	-		
6	It helps my business to grow			
7	It reduces my expenses			
8	I have the ability to use the facilities			
	without difficulties			

## CHALLENGES OF ELECTRONIC BANKING USAGE

12. Please select the appropriate responses that **best describe** your Attitude of Electronic banking.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Using Electronic banking requires effort and much time					
2	Using Electronic banking can be frustrating		W	1		2
3	Electronic banking are poorly handle by service providers	R	5	7	B	
4	It is slow to use electronic banking services	. 7	S. S.	Š		
5	Electronic banking is highly not secured	1	1		/	
6	Poor internet connection with electronic banking services	25				
7	Electronic banking like the ATM card may get stuck in the machine or jam up	3	Y		VHIN	7

13. introduced?	Would you adopt a new form of Electronic Banking if the Bank  a) [] Yes, why?
•••••	b) [ ] No, why?

• • • • •

# **THANK YOU**

