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**DEPARTMENT OF ACCOUNTING AND FINANCE**

**ADOPTION OF ELECTRONIC BANKING IN THE GHANAIAN THE  
BANKING SYSTEM: A CASE STUDY OF GHANA COMMERCIAL BANK.**

**BY**

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**AUGUST, 2015**

**THE ADOPTION OF ELECTRONIC BANKING IN THE GHANAIAN  
BANKING SYSTEM: A CASE STUDY OF GHANA COMMERCIAL BANK  
LIMITED.**

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**A Thesis submitted to the Department of Accounting and Finance, Kwame  
Nkrumah University of Science and Technology in partial fulfilment of the  
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## DECLARATION

I hereby declare that this thesis is my own work towards the Masters of Business Administration(Finance option) 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 acknowledgment has been made in the text.

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## **ABSTRACT**

The study investigated the adoption of electronic banking in the Ghanaian banking system in the customers perspective using GCB bank as a case study. One hundred customers were sampled using non – probability sampling techniques thus basically the purposive sampling technique. The study employed a case study approach and data was collected using closed ended questionnaire. The study found the kinds of electronic banking services that are available at Ghana Commercial Bank. This includes ATM services, SMS (Mobile) Banking, Internet Banking, E\_Zwich Card. The benefits of these services to customers and the impact on the decision to adopt or use such services and products were investigated. The results specifically, showed a neutral correlation between electronic banking and customers adoption which implies that customers decision of whether to adopt such product and services doesn't have clear variables to influences such decisions. The findings further suggested that customer negative perception about service delivery of the bank has significantly changed given the introduction of electronic banking products. It's been recommended that management of Ghana Commercial Bank Ltd invest massively in IT in order to further promote efficient and smooth service delivery. There is also the need to extensively develop more E-banking products and to do extensive customer education to enable more customers patronize.

## **DEDICATION**

This work is dedicated to the almighty God for his provision and strength throughout my study period.

To my accomplice in all and to the Mbawuni Family for their massive support and encouragement that led me to the completion of my study.

And also to everyone who one way or the other aid and impacted in my life while I passed through my days in the KSB, KNUST.

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## LIST OF ABBREVIATIONS

ATM	Automated Teller Machine
AVR	Automated Voice Response
BOG	Bank of Ghana
EFTPoS	Electronic Funds Transfer at Point of Sale
EN	Enterprise Network
FINCEN	Financial Crime Enforcement Network
HND	Higher National Diploma
ICT	Information Communication Technology
ISACA	Information System Audit & Control Association
IT	Information Technology
OCC	Office of the Controller of the Currency
PC	Personal Computer
PIN	Personal Identification Number
POS	Point Of Sale
SMS	Short Message Services
WAN	Wide Area Network

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Bank is defined as a corporate entity which has been given a licence in respect to the Banking Act 2004 (Act 673) to perform banking business. The banking business involves the acceptance of deposits of money from the public or the banks customers, which has to be paid back on demand and withdraw able by cheques, drafts, orders or any other means; or the financing whether in whole or in part or by short, medium or long term loans or advances, of trade, industry, commerce or agriculture.

At the induction of banks, there weren't so many personal computers in the country and therefore most of the banks activities were done on the manual base. The manual system banks were using in serving their customers resulted in very long queues and inconvenienced customers in transacting their businesses Woldie *et al.* (2008).

Banks currently deliver services and sell their products by using several distribution channels (Amanfo, 2010) including electronic banking. Innovations in Technology have been seen as a contributing factor to the distribution channels of banks and these electronic delivery channels are collectively known as electronic banking (Goi, 2005).

Ghana government has made tremendous effort of pursuing a 'knowledge-based economy' agenda to make Ghana become a preferred information and communication technology (ICT) place, Woldie *et al.* (2008). Electronic banking (e-banking) is putting influence on the banking sector (Gurau, 2002; Bradley and Stewart, 2003; Shih and Fang, 2004; Boateng and Molla, 2006) currently in Ghana. Automated Teller Machines

(ATMs), direct dial-up connections, private and public networks, the Internet, televisions, mobile devices and telephones are examples of the electronic and communication systems which have added and continue to impact the banking sector. With the complexity of service, e-banking services range from *informationpush* – mono-directional – services where information about the banks are made known to the customers, its products and services, to *information-download* – bi-directional – services where customers can download (or ask in case of telephone-banking) account information and forms to *full-transaction* – multi-directional – services where customers can perform most banking transactions (such as transfer between accounts, bill payment, third party payment, card and loan applications, etc.) electronically (Boateng and Molla, 2006; Singh and Malhotra, 2004).

## **1.2 Statement of the Problem**

The information technology era that banks find themselves in the midst of competition, among other things has made it possible for them to resort to e-banking. The occurrence, e-banking, as it mostly appear in this research, refers to electronic banking, thus the use of banking services and products over electronic and communication networks straight to customers (Singh and Malhotra, 2004). Banks in the country are more and more gravitating in the direction of digital technology to generate value for their customers and in competing for market shares. Still, banking in the country is beset by long queues, energy exacting and time-consuming, and on the whole, costly (Appiah and Agyemang, 2006). It defeats the purpose of customer service to see the hard time that many customers go through to access banking services around the end of every month when most salaries are paid through the banks. This result in the loss of potential exchanges as many people simply keep money outside the banking system to avoid the ordeal meted

out to them by banks (William *et al.*, 2005 and Appiah and Agyemang, 2006). Physical cash and paperwork still characterises most of the payment systems in Ghana and remains popular in spite of the beginning of digital payment cards Adams and Lamptey (2009). Boateng (2006) notices that research on e-banking in Sub-Saharan Africa is insufficient even though the Region stood in dire need for advance and therefore more need for research concentration. . It is as a result that I would like to undertake this research to look into the adoption of e-banking products the GCB Bank has introduced has on its operations by customers and how customers at the other hand benefits from them.

### **1.3 Objectives of the Study**

The general purpose of the study is to scrutinize the effects of electronic banking on the operations of the Ghana Commercial Bank Limited (GCB). Specifically, the study sought to:

1. To examine customers' awareness and their level of patronising of such e-banking products.
2. To identify the factors that influences customers decision to adopt e-banking.
3. Examine the benefits of e-banking from the viewpoints of customers of GCB bank.
4. Analyse the difficulties associated with e-banking from the perspectives of customers of Ghana Commercial Bank

## **1.4 Research Questions**

The aim of the research was guided by the following research questions:

1. Are customers aware of the e-banking products that GCB bank has introduced in the operations and do they patronise?
2. What are the factors that influence customers to use the various e-banking products/services?
3. Are there any benefits to customers of the banks with regards to e-banking?
4. What challenges do the banks' customers face in their e-banking practices?

## **1.5 Scope of the Study**

The research will focus on identifying the various e-banking that GCB Bank Limited has introduced in their operations; benefits to their staff and customers; and challenges associated with e-banking from the viewpoints of their staff and customers. It focused on KNUST and Ahinsan branches of GCB. A matter of convenience guided the choice of the two branches of the bank and also GCB is deemed to be among the blue-chip banks in Ghana.

## **1.6 Methodology**

The research will be conducted among various customers of the GCB Bank. The methodology used for the study will primarily be the use of questionnaires for respondents to answer. The questionnaires will be self-administered to customers of GCB and this will help to explain to respondents the essence of the research. The study will make use of Microsoft Excel 2010 and Statistical Package for Social Science version 19 for the data analysis.

The information gathered will be tabulated and presented in both bar and pie charts for explanation and analysis.

### **1.7 Justification of the Study**

The study will put in to the existing literature on e-banking in Ghana. This research will also provide the bank with insightful knowledge on innovative ways of informing, communicating and educating its customers of the use of their various e-banking products/services. Customer's knowledge and understanding of such will enable to bank conducts it's banking in this contemporary world without stress and unsatisfactory remarks from its customers.

To my fellow students, the research will also make an arguable conclusion which intends will provoke them into further researching in this particular topic on a broader review.

Also, the research is important to those who make policy, in particular Bank of Ghana and the general public at large.

### **1.8 Limitations of the Study**

There are numerous problems the researcher encountered in the entire research process. Firstly, it cost the researcher much money to download and even search libraries for literature, printing, comb-binding, and field data collection. Some customers of the banks proved difficult in terms of answering the questionnaires. The limited time within which the research was completed, taking into consideration the thoroughness and in-depth report delivered at the end of the period, gave the researcher a tough time.



## **1.9 Organization of the Study**

This study was structured into five chapters. Chapter one contained the introduction to the research. The chapter two reviews the various literatures on electronic banking. The chapter three focuses on the methodology used to embark on the research and profile of GCB while chapter four consists of the presentation and analysis of data. The final chapter five comprises the research's summary of findings, conclusion and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Overview of E-Banking**

Before this era of E-banking, customers of various banks could only transact business at their mother banks. This practice made the banking premises very busy with long queues and communication, either to explain a particular service to a customer or answer various questions from customers. The advancement of information technology has influenced the banking system in Ghana in many different ways, i.e. from the receiving of deposit to the withdrawal of funds from the various banks. As an upgrade of the way banking operations are done with thanks to the current development of technology in this global age, customers not only can they transact business in various networked banks but also from the comfort of their home utilizing an electronic correspondence gadget for example, such that those personage computer, telephones and so forth.

The evolution of E-banking has informed the decisions of many authors to research into it and writes about it. The Basel Committee on Banking Supervision (BCBS) is a group of international banking authorities who work to strengthen the regulation, supervision and practices of banks and improve financial stability worldwide. From the review, they came up with a definition of e-banking. They states that “E-banking refers to the provision of retail and small value banking products and services through electronic channels, (Basel Committee Report on Banking Supervision, 1998)”. This definition has gone under many criticisms and improved upon by different regulatory bodies and authors.

E. Klein stated in his book “Capital formation, Governance and Banking” that, the definition of E-banking varies because of the different forms of e-banking products we have. Notwithstanding, the fact still remains the common factor that is present in the discussion of an e-banking product or service, thus the presence of an electronic device.

Generally, E-banking can be said to be the automated delivery of both new and existing banking products and services directly to customers through electronic and interactive communication channels. E-banking consists of the systems that enable customers of financial institution, either individuals or businesses, to transact business, access accounts or obtain information on financial products and services through a public or private network, including the Internet.

Karjaluoto et al. (2002) in a more detailed description described E-banking as an online banking which involves the provision of banking services such as accessing accounts, transferring funds between accounts on an online database which possibly allow their customers to access various financial service.

Most electronic business specialists agree to the fact that E-banking ensures 24-hours-a-day, seven-days-a-week ease of access which can be made possible through any type of advanced information system (Automated Teller Machines, Personal Computers, Internet, mobile phones etc.) and for all the other forms of financial transactions (Daniel, 1999; Mols, 1998; Sathye, 1997).

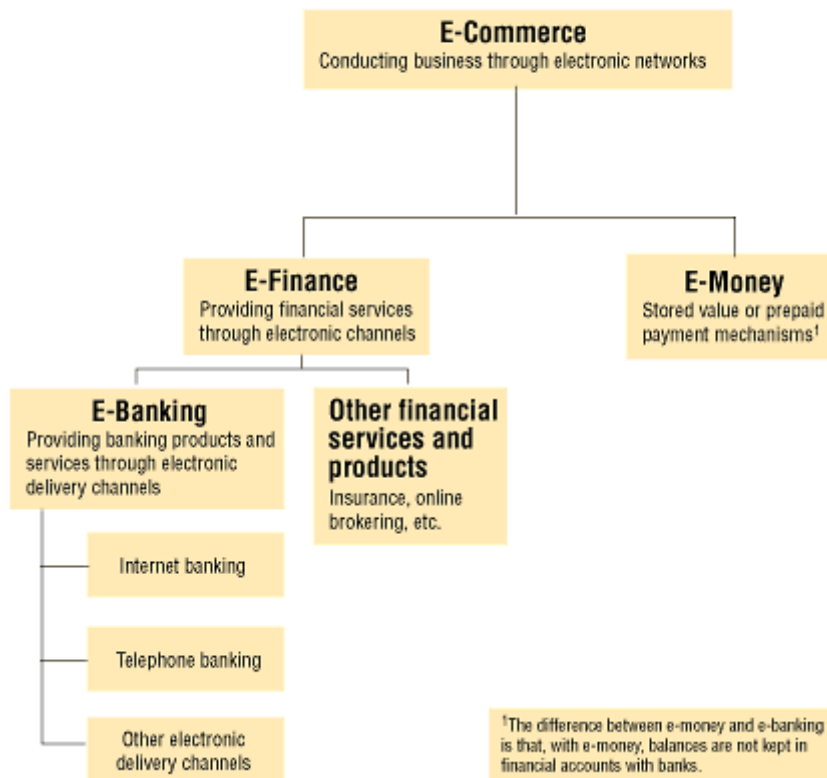
## **2.1 Definition of E-Banking**

Electronic banking is the automated delivery of new and existing banking products and services directly to customers wherever they maybe through electronic medium Mols (1998). This system enables customers to manage their accounts, make a business transaction, make enquiries and also have on time responses from their personal banks. Daniel (1999) also explained e-banking as the provision of banking services to customers through Internet technology.

Mols, 1998; Karjaluoto et al., 2002 stated that banks have the option to provide their banking services through several different forms of electronic distribution channels technologies such as Internet technology, video banking technology, telephone banking technology, and Wireless Application Protocol technology (WAP).

The common forms of e-banking mostly mentioned in the literature include SMS banking, mobile (m-banking), Automated Teller Machines (ATMs), telephone banking, personal computer banking, internet banking and electronic cheque clearing systems (Abor, 2004).

## What is electronic banking?



## 2.2 The Adoption of E-Banking

Thornton and White (2001), who studied customer orientations and usage of financial distribution channels in the Australian financial industry, discovered that more recently most financial institutions, faced with intense competition after the introduction of deregulation in 1983, had rethought their strategies to take full advantage of Internet technology. The challenge to increase in size and maintain the current banking market share has compelled many banks to invest more in understanding and creating an atmosphere where internet usage is on the high in the banking industry (Tan and Teo, 2000).

The Sub-Saharan Africa has seen radical changing in the way they do business as a result of the developments in information and communication technology (ICT). Electronic banking is now thought to hold the promise of a new commercial revolution

by offering a low cost and an interrupted way to exchange information and to sell or buy products and services. As a result of this, the banking sector has been revolutionised to enable the provision of a payment system that is compatible with the demands of the electronic marketplace (Balachandher *et al*, 2001).

This notion was also confirmed in a study conducted by Jasimuddin (2004) who studied the role of E-banking in Saudi Arabia. Jasimuddin in his study also indicated that most of the Saudi banks had taken advantage of Internet technology to set up websites but few offered E-banking services. Also he suggested that if the Saudi Arabian banking industry wished to be successful in the global economy it would need to adopt Internet technology into its banking strategy. Even though Internet technology acceptance is on the increase worldwide, the Ghanaian banking industry is yet to totally adopt Internet technology.

Over time, the importance of technology in Ghanaian banks has been greatly shown and appreciated. E-banking adoption began to occur relatively far as a channel of distribution for financial services due to rapid advances in IT and concentrated competitive banking markets. The main purpose of this was to come up with an innovation that will enable them serve clients more conveniently, and in the process increase profits and competitiveness. Internet, electronic and communications technologies have been used widely in banking for many years to advance the agenda of banks.

Electronic banking adoption by many economies is often said to be a factor which help promote strong growth in the many economies (Coombs *et al*, 1987). It can therefore be said that Electronic banking adoption affects not only the banking and other financial

service industries but affects the entire economy and contributes to the direction an economy grow towards.

### **2.3 E-Banking in Ghana**

Ghanaian banks in recent times have undergone tremendous changes in their operation as a result of the Technological grown globally. Banks in Ghana, in an attempt to be at par with global developments of various innovative ways of delivering services to customers which is to improve the quality of service delivery, most banks have adopted the E-banking systems and most of their clients to patronize the various forms of E-banking. (Woldie, Hinson, Iddrisu & Boateng, 2008)

Moody (2002) in his study identified that e-banking is the fastest growing services which banks can offer in order to gain and retain a sizeable market share, reduce their transaction cost and offer convenient and accurate response to market changes. The mid-1990s witnessed a gradual application of computerized technology into banking operations by Ghanaian banks. From the year 2000 onwards, Information and Communication technology (ICT) has become an important strategic tool for competitive advantage and defining market segmentation as well as market share. From this point of view, there has been a great influence of Information and Communication technology of various forms into several banking operations.

Abor (2004) stated in his work that the first information and communication technologies (ICTs) introduced in Ghana to be used in the banking sector were generally office automation devices such as telephone, telex, and facsimile. The adoption of these

devices remained in use for years, to help speed up operations and efficiency in serving clients.

Plange (2011) indicated in her research on the same topic that information technology is considered as the key driver for the changes taking place around the world. The information and communication applications are paramount concern to banks in today's business environment and Internet has become the major platform for all financial, banking and commercial transactions in the present scenario.

A bank therefore may need to decide on the type e-banking services to provide to which customers and when and how (channel choice) to provide those services. The apparent dominant strategy is the "click and mortar" model in which the bank combines or adds an online presence to its physical presence (UNCTAD, 2002: 134). A bank's motivation is driven from a number of factors such as , its resources and capabilities, and strategic orientation and positioning can affect the specific path a bank takes in terms of developing e-banking. In addition, other factors related to customers awareness, customer readiness, the specific nature of ICT diffusion in the wider market, and experience with electronic based transactions can also influence this path (Jasimuddin, 2001; Awamleh et al., 2003).

Larger banks that maintain expensive branch networks tend to have the greatest Incentive to adopt e-banking services. In comparison, smaller banks have higher startup costs and tend to have a high initial technological cost in developing e-banking services. Treadwell (2001)

E-banking serves several advantages to Bangladesh banking sector, but customers have not enough knowledge regarding e-banking which is rendering by banking sector in Bangladesh because the banks continue to conduct most of their banking transactions



using traditional methods. (Mohammad Azizul Baten and Anton Abdulbasah Kamil, 2010).

In his work on “Technological Innovations and Banking in Ghana”, Abor reveals that the forms of IT Innovations (Electronic Delivery Channels) that has influx the current banking operation in Ghana are Automated Teller Machines (ATMs), personal computer banking, telephone banking, internet banking, branch networking, and Electronic Funds Transfer at Point of Sale (EFTPoS). Arguably, there have been no different forms of E-banking services discovered by any other scholar as found in Abor’s article.

Abor (2004) reveals that, the most revolutionary electronic innovation in Ghana and the world as a whole has been the Automatic Teller Machine (ATM). Many established banks in the country which are networked began with the Automated Teller Machines (ATMs) as the first e-banking service. For instance; in 1995, the Trust Bank Ghana installed the first ATM and in 2001, Ghana Commercial Bank started its ATM networks in collaboration with Agricultural Development Bank. Additionally, as at 2004, other banks such as Barclays Bank (Gh.), Standard Chartered Bank (Gh.) and Ecobank Gh. Ltd operate ATMs in Ghana. The most innovative electronic delivery channel in the country and worldwide has been the ATM.

Observations from a study, in Abor (2004) reveal that customers consider it as important in their choice of banks, and banks that delayed the implementation of their ATM systems, have suffered irreparably. ATMs have been able to entrench the one-branch philosophy in this country, by being networked, so people do not necessarily have to go to their branch to do some banking.

In a while, the use of mobile phones as a medium for conducting banking transactions also emerged in the industry. It was as a result of the high patronage of mobile phones by individuals in Ghana for their personal and business communications that banks thought it wise to introduce mobile banking (or SMS banking) to perform some kind of financial services. (GhanaWeb2005).

Additionally, the identification of Internet banking as a new delivery channel for performing various banking transactions has gained acceptance in the country. It provides an opportunity to the customers to carry out banking transactions at their convenience. Banks have recognized the internet as representing an opportunity to increase profits and their competitiveness Abor (2004). As at 2004, no bank was offering internet banking (i-banking) in Ghana, even though some banks have well laid plans to start.

The exploitation of internet banking began in 2005 by Cal bank (Gh), Guarantee Trust-2006, Zenith bank (Gh.)-2007, Ecobank, Stanbic and Standard Chartered bank (Gh.) - 2008, Intercontinental bank-2009 and among other Ghanaian banks. Again, internet banking model offers advantages for both banks and customers. The internet provides the banks with the ability to deliver products and services to customers at a cost that is lower than any existing mode of delivery. A survey conducted in US shows that of all the modes of transactions, internet banking is the cheapest for the banks Malhotra et al (2006).

Last of all is a Point-of-Sale Terminal known as E-zwich. This technological innovation is a name for the National Switch, initiated by the Bank of Ghana in collaboration with other banks in Ghana to bring the payment systems of goods and services up to the best international standards. Also it's being designed to help bring the purpose of banking

closer to everyone. E-zwich participants includes major and rural banks, savings and loans companies, merchants, services providers, tax revenue collectors and individuals making or collecting payments for goods and services. The general public benefits from a more convenient, safer and easier way to spend and receive money by using the smart card.

Electronic banking is in fact not a technology, but an attempt to merge several different technologies that are identified to be of high-quality when brought together to improve the performance of bank services.

## **2.4 Benefits of Electronic Banking**

Mols (1998) stated that the service industries are mostly customer driven and the banking sector is one of the competitive industries with continuous upgrading of skills, products and technology all in the interest of retaining and winning customers. Given the nature of competition, survival and profitability is highly dependent on quality of service and efficiency.

E-banking has become a usual platform for many bank to enable them allow easy flow of transactions with clients. Meaning, the easier it is for consumers to check their accounts, pay their bills and transfer from one account to the other, the more likely they are to actually do these things and maintain a more organized financial life. But, it's important to consider that just because e-banking is a good addition to the world of consumer banking, doesn't necessarily mean that e-banking will serve as a substitute for their physical banking halls in all cases.

Howcroft *et al.*, (2002) in a study, found that the most important factors encouraging consumers to use online banking are lower fees followed by reducing paper work and

human error, which subsequently minimize disputes. Byers and Lederer, (2001) concluded that it was changing consumer attitudes rather than bank cost structures that determines the changes in distribution channels; they added that virtual banks can only be profitable when the segment that prefers electronic media is approximately twice the size of the segment preferring street banks.

E-banking makes banking activities always accessible for business anywhere there is an internet connection. Other than times when website maintenance is being done, they are open 24 hours a day, 365 days a year. If internet service is not available, customer service is normally provided around the clock via telephone. Real-time account balances and information are available at the touch of a few buttons. This makes banking faster, easier, more efficient and even more effective because consumers are able to always stay on top of their account balances. Updating and maintaining a direct account is also easier. It takes only minutes to change your mailing address, order additional checks and check for current interest rates.

Banks therefore gives customers convenient, inexpensive access to the bank 24 hours a day and seven days a week. Moutinho *et al.*, (1997) indicated that each ATM could carry out the same, essentially routine, transactions as do human tellers in branch offices, but at half the cost and with a four-to-one advantage in productivity. As we can clearly accept the fact that ICT is now evolving into the banking industry in Ghana, the functions of ATM could not be completely regarded as substitute for tellers in the banking hall.

Gerrard and Cunningham (2003) found a positive correlation between convenience and online banking and remarked that a primary benefit for the bank is cost saving and for

the consumers a primary benefits is convenience. Multi-functionality of an IT based services may be another feature that satisfies customer needs (Gerson, 1998).

A reduction in the percentage of customers visiting banks with an increase in alternative channels of distribution will also minimize the queues in the branches (Thornton and White, 2001). Increased availability and accessibility of more self-service distribution channels help bank administration in reducing the expensive branch network and its associate staff overheads. Bank employees and office space that are released in this way may be used for some other profitable ventures (Birch & Young, 1997). This ultimately leads towards improved customer satisfaction and the institution's bottom line (Thornton & White, 2001).

Internet banking also increases competition within the banking system and also from non-bank financial institution (ECB, 1999). The Internet increases the power of the customer to make price comparisons across suppliers quickly and easily. As a consequence, this pushes prices and margins downward (Devlin, 1995).

Institutional encouragement of the use of IT-based services and IT service fees are another important dimension (Zhu *at al.*, 2002). Cantrell (1997) conducted a banking survey in the US and found that increases in service fees were one of the main driving forces behind the move of some large bank customers to smaller community banks.

Nancy *et al.* (2001) viewed the same situation differently and argued that customers like to interact with humans rather than machines. They found more possibilities for asking questions and believe that bank clerks are less prone to errors. It is thus essential that any face-to-face transactions are carried out efficiently and courteously. This increases the

possibility of selling the customer another service that they need and also promotes a good image and enhances customer loyalty. The findings obtained by Nancy *et al.* (2001) suggest that, attitude is an important variable which influence the usage of e-banking services such as telephone banking and ATM services. Therefore, customers who have negative attitude towards e-banking services especially individuals who cannot read and write, are less likely to use such services than those with positive attitude.

Polatoglu and Ekin (2001) found that low levels of email usage and a preference for doing over-the-counter transactions at bank branches are the main reasons for not using e-banking in Turkey. The opportunity to conduct a trial may help to convince reluctant customers (Black *et al.*, 2001).

Boon and Ming (2003) concluded that banks in Malaysia should concentrate on enhancing their operation and product management through a mixture of branch banking and e-channels, like ATMs, phone banking and PC banking.

## **2.5 Risks Associated with Electronic Banking**

Although, electronic banking provides many opportunities for the banks, it is also the case that the current banking services provided through Internet are limited due to security concerns, complexity and technological problems (Sathye, 1999; Mols, 1999). Hewer and Howcroft (1999) used the term trust to describe a measure of risk. Suganthi *et al.*, (2001) viewed risk in the context of security concerns and risk in the context of trust in one's bank. Finally, a number of studies found that trust and perceived risks have a significant positive influence on commitment (Bhattacharjee, 2002; Mukherjee and Nath, 2003) and ultimately leads towards overall satisfaction (Rexha *et al.*, 2003).

Reputation of a service provider is another important factor affecting trust. Doney and Cannon (1997) defined reputation as the extent to which customers believe a supplier or service provider is honest and concerned about its customers. Tyler and Stanley (1999) argued that banks can build close and long lasting relationships with customers only if trust, commitment, honesty and cooperation are developed between them.

Nancy *et al.*'s (2001) study found that customers' complain about computer logon times which are usually longer than making a telephone call. In addition, respondents felt that they have to check and recheck the forms filled in online, as they are worried about making mistakes. Frequent slow response time and delay of service delivery cause customers to be unsure that the transaction has been completed (Jun & Cai, 2001). Min and Galle (1999) found the disruption of information access to be a common factor related to unwillingness to use Internet channels for commerce.

Confidentiality of consumer data is another important concern in the adoption of online banking (Gerrard & Cunningham, 2003). Customers fear that someone will have unlimited access to their personal financial information which can be used in various ways to harm their personality or any other third party he has been dealing with.

It is worth noting, that the internal attacks are potentially the most damaging because the bank's personnel, which can include consultants as well as employees, may have authorized access to critical computer resources. Combined with detailed knowledge relating to the bank's practices and procedures, an internal attacker could access value transfer systems directly, or exploit trusted relationships among networked systems to gain a level of access that allows him to circumvent established security controls. After

that, the attacker could potentially transfer money or other assets inappropriately. That is why, the first thing a financial institution should do, is to review and evaluate the security of internal networks.( Liao & Cheung 2002).

White and Nteli (2004) conducted a study that focused on establishing the reason why most users of the internet have decided not to patronize the e-banking services of their individual banks in the UK. The basic was the fact that there has been evidence of an increase in Internet users in the UK but this had not been paralleled by increases in Internet usage for banking purposes. Their conclusion was the fact that customers still have concerns with the security and the safety aspects of the Internet.

Even though sophisticated encryption software is designed to protect your account information, no system is perfect. Accounts may be subject to phishing, hacker attacks, malware and other unauthorized activity. However, one advantage of online banking is that you are likely to find a security breach more quickly, because your account balance is so accessible. But this doesn't stop that fact that there has been a security breach and you have been already affected.

Some fascinating developments also came from research made by Worku (2010) after researching in the internet banking in Ethiopia. Worku identified that the Ethiopian banks faces numerous challenges to fully adopt and adapt e-banking applications and seize the advantages presented by ICT applications in general. He confirms that in Ethiopia, the key challenges for e-banking applications are:

- ❖ Low level of internet penetration and poorly developed telecommunication infrastructure: Lack of infrastructure for telecommunications, Internet and online



payments impede smooth development and improvements in e-commerce in Ethiopia.

- ❖ Lack of suitable legal and regulatory framework for e-commerce and e-payment: Ethiopian current laws do not accommodate electronic contracts and signatures. Ethiopia has not yet enacted legislation that deals with e-commerce concerns including enforceability of the validity of electronic contracts, digital signatures and intellectual copyright and restrict the use of encryption technologies.
- ❖ Inadequate banking system: Political instabilities in neighbouring countries: Political and economic instabilities in Somalia, Southern Sudan, and Eritrea are threatening traits that do not provide a very conducive environment for e-banking in Ethiopia. Political instabilities inevitably disturb smooth operations of business and free flow of goods and services
- ❖ High rates of illiteracy: Low literacy rate is a serious impediment for the adoption of E-Banking in Ethiopia as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of E-Banking, they should not only know how to read and write but also possess basic ICT literacy.
- ❖ High cost of Internet: The cost of Internet access relative to per capita income is a critical factor. Compared to the developed countries, there are higher costs of entry into the e-commerce market in Ethiopia. These include high start-up investment costs, high costs of computers and telecommunication and licensing requirements

- ❖ Absence of financial networks that links different banks (Banks are not yet automated): Most of the banking-transactions currently taking place use credit and debit cards supplied by Visa and MasterCard. For conducting e-banking, the use of credit or debit cards is mandatory thus requiring the need for specialized systems which are not currently available.
  
- ❖ Frequent power interruption: Lack of reliable power supply is a key challenge for smoothly running e-banking in Ethiopia.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter seeks to discuss the population and sample size, the techniques used for sampling and data collection, the various data collection instruments as well as the procedures used in measuring and analyzing the data. The chapter also gives an overview profile of GCB Bank. This chapter therefore seeks to describe how the whole research was conducted.

#### **3.2 The Research Design**

As indicated by Kvale (1996) and Mikkelsen (1995), the overall success of research is determined by the choice of research method. Also, A research design is considered as a "blueprint" for research which directs, which questions to study, which data are relevant, what data to collect, and how to analyze the results (Adèr, Mellenbergh, & Hand, 2008).

Research design is divided into fixed and flexible research designs (Robson, 1993). Others have referred to this distinction as „quantitative research designs“ and „qualitative research designs,“ respectively. In fixed designs, the design of the study is fixed before the main stage of data collection takes place. Fixed designs are normally theory driven; otherwise it’s impossible to know in advance which variables need to be controlled and measured. Often, these variables are measured quantitatively. Flexible designs allow for more freedom during the data collection process. One reason for using a flexible research design can be that the variable of interest is not quantitatively measurable, such as culture. In other cases, theory might not be available before one starts the research.

Examples of quantitative designs include experimental designs, non-experimental designs and quasi experimental designs. In an experimental design, the researcher actively tries to change the situation, circumstances, or experience of participants (manipulation), which may lead to a change in behaviour or outcomes for the participants of the study. Non-experimental research designs however, do not involve a manipulation of the situation, circumstances or experience of the participants. Quasi research designs on the other hand are research design that follow the experimental procedure, but do not randomly assign people to (treatment and comparison) groups.

Regarding qualitative research designs examples include ethnographic study, grounded theory study and case study. Ethnographic study is a research kind which is involved with a group, organization, culture, or community. Normally the researcher shares a lot of time with the group to observe events. For Grounded theory research, it is a systematic research process that works to develop "a process, and action or an interaction about a substantive topic" (Creswell, 2012). In a case study, one single unit is extensively studied. This can be a case of a person, organization, group or situation. Bell (1999) states "a case study approach is particularly appropriate for individual researchers because it gives an opportunity for one aspect of a problem to be studied in some depth within a limited time scale".

Given the nature of this study, it fits into case study design. A single unit, Ghana Commercial Bank is being examined to determine the impact of electronic banking on service delivery.

The research strategy adopted by the researcher is the case study research approach. The case study approach was used due to time constraint and the fact that it is best used in contemporary issues. Another bases on which the case study approach was used is the

fact that not all individuals can be interviewed, therefore a sample was used and the findings generalized.

### **3.3 Population**

Saunders *et al.* (1997) put forward that the full set of cases from which the sample is taken is called the population. This study focused on all customers of GCB Bank in Kumasi metropolis, Ahinsan and KNUST branches.

### **3.4 Sample Size and Sampling Technique**

Sampling techniques provide a range of methods that help a researcher to reduce the amount of data needed to collect by considering only data from a sub-group rather than all possible cases (Saunders *et al.*, 1997). With a study like this one, it becomes practically difficult to carry out a saturation study which will cover 100% survey of all respondents. Furthermore, given the time frame within which the research should be conducted, it becomes even more crucial to sample respondents.

A sample size of 100 respondents was selected for the study. Out of the 100, only 90 of the respondents responded to the questionnaire. The sampling technique used in selecting the sample size is the purposive sampling technique. The reason for the choice of technique is largely due to the interest of the researcher as well as time constraint as this research is time bound.

### **3.5 Sources of Data Collection**

#### **3.5.1 Primary Data**

For the purpose of this study, only questionnaires were used as a source of gathering primary data from the customers of the GCB bank.

### **3.5.2. Secondary Data**

Secondary data was used for the study. Essential information was gathered by using this source, the internet, which contributed in-depth information to the course of the study. The internet sources included articles, previewed books, journals, definitions, summarized discussions of conferences etc. Books and newspapers were also used to collect valuable information.

This basically means that, Primary data was collected through the use of questionnaires and in depth interviews. Secondary data was also sourced through publications, company's annual report and online sources.

## **3.6 Methods of Data Collection**

### **3.6.1. Questionnaires**

In order to obtain accurate data, questionnaires were designed and administered to the respondents. The respondents consisted of only the customers of the selected GCB branches. In an attempt to get additional information, the researcher was available to assist with the administration of the questionnaires. The questionnaires were constructed by allowing respondents to give their own answers (open – ended) and also give forced choice questions (closed – ended). To ensure that, all questionnaires were returned, respondents were made to answer the questions on the spot.

## **3.7 Data Analysis**

Data analysis refers to the process of deriving meaning from the data that had been collected in a study. According to Yin (1994), the ultimate goal of analyzing data is to treat the evidence fairly, to produce compelling analytical conclusions and to rule out alternative interpretations.

Considering the nature of the data that was collected, it was very appropriate to use qualitative approaches to analyze the data. Descriptive statistical techniques such as bar graph and pie charts were used to give a pictorial view of the results obtained. I also applied my personal judgment in the analysis where it was deemed very necessary. The results were then interpreted and recommendations suggested appropriately. The study was concluded by the whole research work through to the recommendations offered.

### **3.8 Limitations**

The researcher encountered some challenges in the course of the study, these include:

Difficulty in arranging for a meeting with the respondents to administer my questionnaire due to the busy daily schedule at the Bank posed a major challenge.

Intensified load shedding exercise also caused a major delay in the analysis of the data obtained from the respondents.

Despite all these problems, an effort was made to gather much information to ensure accuracy and also give a true representation of the findings.

### **3.9 Profile of Ghana Commercial Bank Limited**

Ghana Commercial Bank Ltd. started in 1953 as the Bank of the Gold Coast to provide banking services to the emerging nation for socio-economic development. The Bank was to provide special attention to Ghanaian traders, business people and farmers who could not elicit support from the expatriate banks. In 1957, when Ghana attained independence, Bank of Ghana was established as the Central Bank while the Bank of the Gold Coast was renamed Ghana Commercial Bank to focus solely on commercial banking services. Since then GCB branches have been opened across the length and breadth of the nation tapping the potential of the 10 regions that make Ghana ([www.gcb.com.gh](http://www.gcb.com.gh)).

The Bank had been wholly government-owned until 1996 when under the economic recovery programme; part of the government ownership was divested. Today, government's ownership stands at 21.36% while institutional and individual holdings add up to 78.64%. From the one branch of the 1950s, GCB now has over 150 branches and 11 agencies throughout the country. GCB abounds in high quality human resource, which stands at 2,101 as at the end of 2009. This is remarkable when one considers that the bank started with a staff of 27. Currently there are professionals of various disciplines who work in tandem to achieve the objectives of the bank ([www.gcb.com.gh](http://www.gcb.com.gh)).

The growth of the Bank has been synonymous with its customer base. During the first five years of the bank's operations, its customers were mainly small Ghanaian traders (now termed Small and Medium-Scaled Enterprises (SMEs)) and other nationals who were expected to maintain credit balance accounts because the bank was then not adequately capitalized. From the small traders as customers, GCB now has a customer profile that ranges from salaried workers through small and medium scale entrepreneurs to large trading concerns, quasi-governmental institutions and corporate customers. GCB provides a wide range of products and services for the benefit of its customers. From the traditional products of the Current/Savings Accounts, GCB now offers specialized products and services including Link2Home for Ghanaians resident abroad, doorstep cash collection, loans and overdrafts. There are also investments products like treasury bills as well as fixed and call deposits. These are designed to suit the individual needs of customers. Today, the bank can boast of being the widest networked bank in Ghana ([www.gcb.com.gh](http://www.gcb.com.gh)).

The bank's mission is to be the established leader in banking, satisfying the expectations of customers and shareholders, providing a full range of cost efficient and high quality



services through the optimization of information technology and efficient branch network ([www.gcb.com.gh](http://www.gcb.com.gh)).

GCB bank having celebrated their 60th anniversary in 2013 and having launched a new image for our Bank in 2014 to help drive them forward for the next 60 years, they can say with total conviction and confidence that they are excited about the future. GCB bank have consistently grown and demonstrated our commitment to Ghana over the last six decades and will continue to do so in the achievements we make and in the positive difference we bring to people's lives.

In a world where nothing stands still, GCB now occupies an environment with more intense competition and higher consumer expectation than ever before. Internet and mobile connectivity have increased beyond measure bringing new knowledge and higher expectation of service. This has significantly changed the way banking business is done and how it is perceived by the public.

GCB bank in order to maintain their position as the leading bank in Ghana and to continue to grow, it is now more important than ever to refocus and re-arm our position in the marketplace through a new, evolved brand, better communication and a tireless commitment to serve our customers better.

As part of the change, GCB have adopted an internal change programme that has been firmly embedded in their business plans, staff training, branches and services. This programme overhauled the Bank' score values and brand, resulting in a new evolved logo and a stronger on-the-street presence.

GCB dedication to higher standards will witness the introduction of new banking products and services. GCB are refurbishing our branch network to international

standards, updating systems and technology and focusing on increased customer satisfaction right across their business channels. This is a long-term programme, but you will see progress over the coming months.

The goal as a Bank has always been to be the leading -financial services provider in Ghana through a commitment to superior service and best practice. Our commitment to our country and its heritage, values and future are demonstrated every day through the actions that we take as an organization. This has not, and will not, change.

We are delighted to share with you our underlying business principles, fundamental values and brand systems. Through these assets, and with the commitment and support of our shareholders and partners, we are confident we will enjoy growth and prosperity for all our stakeholders and, of course our customers.

### **Positioning Statement**

GCB offers accessible -financial support wherever it is needed through helpful service and expert solutions, to encourage business and enrich people's lives.

### **Vision**

We aspire to become Ghana's favorite bank and one of the most recognized and preferred financial service brands in Africa and beyond.

### **Mission**

Our Mission is to provide friendly, helpful and accessible banking services; combined with expert -financial solutions that help people and businesses realize their goals.

## **CHAPTER FOUR**

### **PRESENTATION AND ANALYSIS OF DATA**

#### **4.0 Introduction**

This study examined the adoption of electronic banking in the Ghanaian banking sector with Ghana Commercial Bank as a case study. In the first place, the study aimed at identifying electronic banking services offered by Ghana Commercial Bank and how popular these services are with customers. Secondly, the study examined customers' awareness and their level of patronising of such e-banking products and services offered by the bank. The next was to determine the effect that the benefits and challenges on those e-banking services has on customers accepting and adopting the various e-banking services.

In this chapter, the data collected for the study were analyzed and interpreted. The data is presented in tables beginning with demographic variables and then research questions that are formulated to guide the research. The first part of the chapter considered the demographic background of the respondents, focusing on sex, level of education and numbers of years with the bank. The second part presented the findings from the study in relation to the research question.

#### **4.1 Data collected from the questionnaires to Customers**

##### **4.1.1a Demographic Data**

A total of hundred (100) questionnaires were distributed among the two (2) branches, however, ninety (90) were received.

##### ***Gender***

In terms of gender, fifty two (52) males were sampled and thirty eight (38) were females.

**Table 4.1.1a Gender of respondents**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	52	57.8	57.8	57.8
	female	38	42.2	42.2	100.0
	Total	90	100.0	100.0	

***Age of respondents***

The next demographic variable of the participants examined was their age. The results showed that, the majority of respondents were in the age bracket of 26 – 33 years and 42 years and above having a total of 30 percent each. This was followed by 18 –25 year group representing 21 percent of the respondents and representing 15 percent were between the ages of 34 to 41 years. The balance perceived in this data could be as a result of the two branches of the bank which was taken as the case, thus one is situated in an industrial area and the other on the university campus This is shown in **Table 4.1.1b** below.

**Table 4.1.1b Age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25yrs	21	23.3	23.3	23.3
	26-33yrs	27	30.0	30.0	53.3
	34-41yrs	15	16.7	16.7	70.0
	42yrs and above	27	30.0	30.0	100.0
	Total	90	100.0	100.0	

### ***Educational level***

The next sample characteristic examined was the educational level of the respondents. Analysis showed that the majority of the respondents were pursuing or holding their Degree certificate. There were 41 with their Degree constituting about 45.6 percent of the entire respondents, followed by 26 forming 28.9 percent of respondents holding or pursuing their Diploma / HND certificate. This is followed by the 9 respondents holding their SHS /WASSCE certificates representing 10 percent while 7 representing 7.8 percent of the respondents were either holding or per suing their postgraduate/Master’s Degree certificate. Lastly were 7 of the respondents representing also 7.8 percent indicating another as their education level. This they gave as either O’Level or A’level certificate holders. This is shown in **Table 4.1.1c** below

**Table 4.1.1c Educational level**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Shs	9	10.0	10.0	10.0
diploma	26	28.9	28.9	38.9
Degree	41	45.6	45.6	84.4
Master's Degree	7	7.8	7.8	92.2
Other	7	7.8	7.8	100.0
Total	90	100.0	100.0	

### ***Tenure with Bank***

The last sample characteristic examined was the number of years that the respondents have been with the bank. The results showed that, 32 respondents representing 35.5 per cent have been customers of the bank for the period of 11 years and above while a total of 30 representing 33.3 per cent have been with the bank for the periods ranging from 6

to 10 years. It was also found that, 28 respondents representing 31.1 per cent have been customers of the bank for 5 years and below. See **Table 4.1.1d** below for details.

**Table 4.1.1d tenure with bank**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 5yrs and below	28	31.1	31.1	31.1
6-10yrs	30	33.3	33.3	64.4
11yrs and above	32	35.5	35.5	100.0
Total	90	100.0	100.0	

#### 4.1.2 Awareness

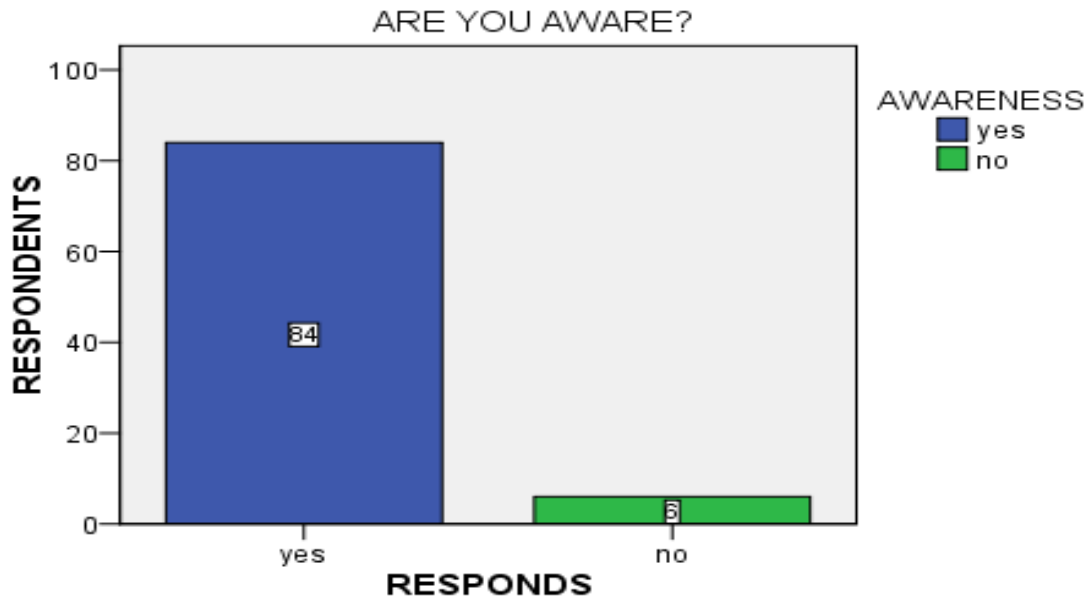
This part of the questionnaire was to determine the awareness level of the customers of the Ghana Commercial Bank on the various E- BANKING products and services that Bank operates.

**Table 4.1.2a Whether or not you know**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	84	93.3	93.3	93.3
No	6	6.7	6.7	100.0
Total	90	100.0	100.0	

The above table explains the fact that out of the 90 respondents, 84 representing 93.3 percent indicated their awareness of an existence of e-banking services and products in the bank whilst the remaining 6 representing 6.7 percent indicated that they had no

knowledge of anything like e-banking in the country. Upon further enquiries from them they see people at the ATM and presume they come from outside the country and the only point they could access their funds or cash from their country is through the ATM machines. This data is further explained in the chart below



**Fig. 4.1.2a: Awareness**

*Which products are you aware of?*

This question serves as a follow up on the initial question. Basically to as the respondents the various e-banking products they know about.

**Table 4.1.2b E-Banking products you know**

	N	Mean	Std. Deviation	Std. Error Mean
2	85	1.0000	.00000 <sup>a</sup>	.00000
2	61	2.0000	.00000 <sup>a</sup>	.00000
2	40	3.0000	.00000 <sup>a</sup>	.00000
2	30	3.9000	.54772	.10000
2	23	4.9565	.20851	.04348

The mean values indicated in the table above represent the various e-banking products and services that the GCB bank is operating. 1 which represents ATM can be seen as the one most of the respondents were aware of, thus 85 of the respondents ticking ATM as one which they are aware of. 61 of the respondents also ticked 2 which represent Mobile/SMS Banking to indicate that they are aware of its existence in the Banking operation. Also 40 ticked 3 which represent Internet Banking, 30 also ticked 4 showing their awareness of Electronic Funds Transfer and lastly 23 indicated their awareness of Telephone Banking represented by 5 on the mean table.

It can also be noticed that the total number of 85 of the respondents that indicated their awareness of ATM exceeds the number of 84 that indicated their awareness of E-BANKING services in GCB. This can indicate clearly that some customers don't know the meaning of e-banking and the various products and services that are operated by the bank.

***Where you introduced by a staff?***

This question was asked in order to know the various ways by which customers of the Bank are introduced to the various e-banking products. The assumption is since it's a product line of the bank, it is up to the employees of the bank to make known these services to their clients/customers but it's that really the way it happens?

The table 4.1.2c below will give the summary of the findings when the respondents answered this question.



**Table 4.1.2c A staff introduced me**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	49	54.4	57.0	57.0
	No	35	41.1	43.0	100.0
	Total	85	95.6	100.0	
Missing	System	5	4.4		
Total		90	100.0		

From the above table, it is clear enough that 49 of the respondents said they were introduced to the various e-banking products by a staff of the bank and 35 also said no. this in my perspective indicates that the staff of the bank in charge of marketing these products and services the bank is operating are not performing their duty.

As a matter of fact the 45 which said they were introduced to the various e-banking services/products also indicated that it wasn't all the products that were introduced to them by the employees of the bank. They had to inquire themselves and also from their previous experiences from other banks etc to know the various e-banking services.

***How else did u get to know the various e-banking products?***

As explained earlier most of the respondents generally didn't get to know of the various e-banking services from the staff of the GCB bank but also through other ways. Therefore this question was to know the other means through which they got to know of the various e-banking products/services rendered by the bank.

**Table 4.1.2d Mode of awareness**

	N	Mean	Std. Deviation	Std. Error Mean
4	24	1.0000	.00000 <sup>a</sup>	.00000
4	4	2.0000	.00000 <sup>a</sup>	.00000
4	36	3.0000	.00000 <sup>a</sup>	.00000
4	22	4.0000	.00000 <sup>a</sup>	.00000

The table 4.1.2d explains the various modes through which the respondents got to know of the various e-banking products of the GCB bank. In this case also the mean values represent the various modes the researcher asked the respondents to choose from. Thus:

1. Through a friend
2. An advert on the media
3. By your own enquiries
4. Through your experience from your previous bank

From the results, it can be noticed that all the respondents who responded to their awareness by a staff of the GCB bank also had to know other e-banking services/products through some other modes. 24 out of the 85 of the respondents said they got to know through a friend, 4 also said through an advert on the media, 36 also said through their own personal enquiries and the remaining 22 said it was through their personal experience from their previous bank.

This can clearly inform the researcher to make the statement that the staff of GCB bank, only introduce some of their e-banking products/services to their customers and mostly others are informed when they personal ask to know.

### ***Encouraging e-banking***

As a result of the previous question made way for this question. That is to know if measures have been put in place to encourage e-banking from the customer's point of view. The table 4.1.2e below summarizes the findings that were gathered from the research.

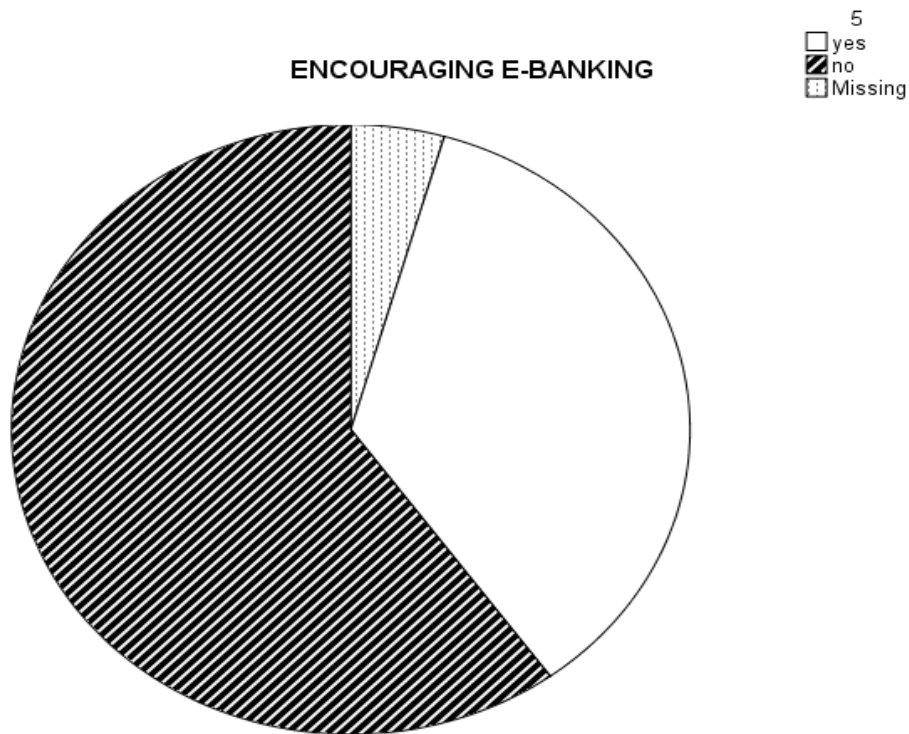
**Table 4.1.2e Encouraging e-banking**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	32	35.6	37.2	37.2
	No	54	60.0	62.8	100.0
	Total	86	95.6	100.0	
Missing	System	4	4.4		
Total		90	100.0		

It can be seen from the table above clearly that the majority of the respondent representing 62.8 percent indicated that the GCB has not putting enough measures in place to encourage and promote the usage of the various e-banking products to their clients/customers. On the other hand, 37.2 percent of the respondents also indicated that the GCB bank has put enough measures in place for the promoting and encouragement of e-banking products among their clients. Upon personal enquires from most of these respondents who answered yes to this question their reasons where to the fact that only what they are to know they were made to know whilst others constantly spoke on the fact of being deducted some amount from their accounts if they refused to use these services especially the ATM and rather withdrew from the counter.

The pie chart below represents the table and makes interpretation easier.

**Fig. 4.1.2e: Encouraging E-Banking**



#### **4.1.2 Adoption**

This section of the research questionnaires was to find out the number of our respondents who uses the various e-banking products/services operated by GCB bank, the ones they use and the frequency of their usage.

##### ***Usage of any GCB bank's e-banking product***

This was to determine the adoption of the various GCB e-banking products by customers. The table 4.1.3a gives a brief summary of the findings.

**Table 4.1.3a Do you use?**

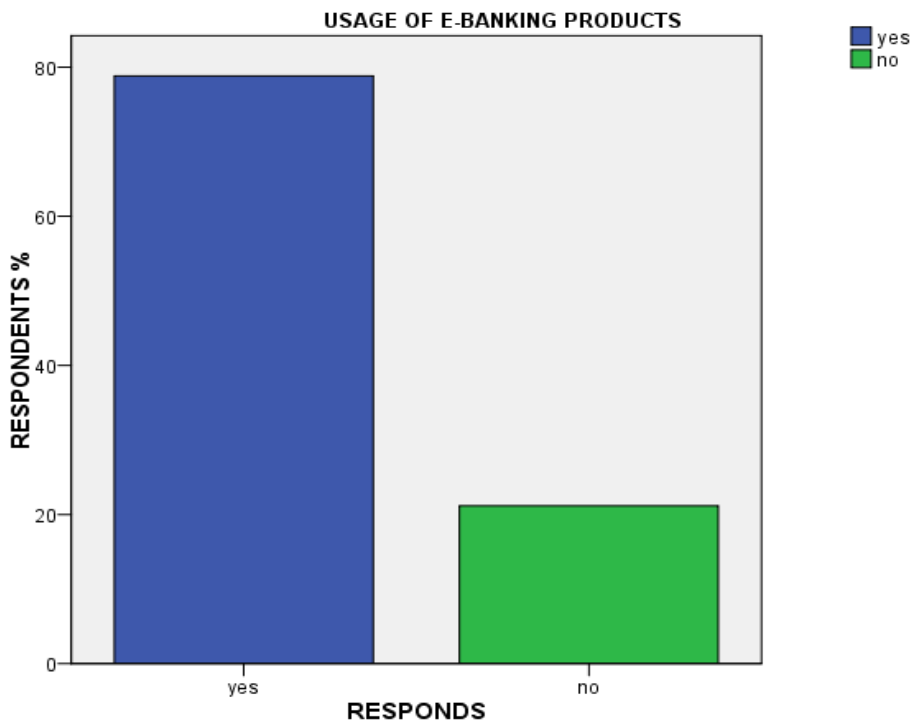
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	67	74.4	78.8	78.8
	No	18	20.0	21.2	100.0
	Total	85	94.4	100.0	
Missing	System	5	5.6		
Total		90	100.0		

The above table indicates that 67 of the respondents representing 78.8percent of the respondents who are aware of the existence of GCB e-banking services and products use one or more of such products/services. Whilst 18 represent 21.2 percent of the respondents don't use any of the GCB e-banking products or services even though they are aware of them.

The question still remains what factors influence the usage and not using the various e-banking products/service provided by GCB bank to its clients/customers.

The below Bar chart 4.1.3a will clarify the above table for easy assessment

**Fig. 4.1.3a: Usage of E-Banking Products**



***The type of GCB e-banking products which u use***

After respondents have indicated the fact that they use most of the GCB e-banking products the next question was which of them they use and follow up was why they decided to use those ones.

The below table 4.1.3b explains the ones the respondents use and the frequency of respondents who uses such ones.

**Table 4.1.3b Various E-banking products used**

	N	Mean	Std. Deviation	Std. Error Mean
7	64	1.0156	.12500	.01562
7	37	1.9459	.32880	.05405
7	12	2.8333	.57735	.16667
7	6	3.8333	.40825	.16667
7	5	4.6000	.54772	.24495

As indicated earlier the mean represent the various e banking products that the respondents were asked to select from.

This is represented as:

1 = 1.0156 = ATMs

2 = 1.9459 = Mobile banking (SMS)

3 = 2.8333 = Internet banking

4 = 3.8333 = Electronic Funds Transfer

5 = 4.6000 = Telephone Banking

From the above information, it can be stated from the perspective of the researcher that, 64 of the respondents uses ATM, 37 uses the mobile/SMS banking, 12 uses the internet banking, 6 uses the Electronic Funds Transfer and lastly 5 uses the Telephone Banking.

### ***Frequency of Usage***

The question of how often do the respondents who have stated the fact that they use these e-banking products/services became a matter of important in this research since it will explain where they have just been forced to use them or have genuine economic reasons for using them. The findings from this question can be seen in the table 4.1.3c below.

**Table 4.1.3c Frequency of usage**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	not often	15	16.7	22.4	22.4
	Often	25	27.8	37.3	59.7
	very often	27	30.0	40.3	100.0
	Total	67	74.4	100.0	
Missing	System	23	25.6		
Total		90	100.0		

This can be explained as the frequency of usage of the various e-banking products/services by the respondents. Out of the number that accepted to the fact that they use one or more of the various e-banking products/services, it can be seen here that 15 representing 16.7 percent of the respondents indicated that they do not often use them, whilst 25 representing 27.8 of the respondents said that they often use them and lastly 27 representing 30.0 percent of the respondents also indicated that they very often use the various e-banking product/services.

Over here the question of what determines the frequency of usage could be determined using the regression analysis. This will be further explained later in the area where the researcher performs some regression analysis.

***Confidentiality of the security aspect of GCB Bank's e-banking services***

Here respondents were asked to express their confidence level of security in the usage of the various e-banking product/services provided by the GCB bank. The results are represented in the table 4.1.3d below.



**Table 4.1.3d Confidence of safety**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	49	54.4	68.1	68.1
	No	23	25.6	31.9	100.0
	Total	72	80.0	100.0	
Missing	System	18	20.0		
Total		90	100.0		

Some of the respondents who earlier answered no to the usage of any of the various e-banking products/services provided by the GCB bank could be seen to have answered this question here making it clear that their reason for not using is because they think the various e-banking products are not secure to use or simply say the security levels set for the various e-banking products are low.

From the table 4.1.3d above out of 72 respondents who responded to this question, 49 representing 68.1 percent said yes they trust the security set in place for the e-banking services whilst the remaining 23 representing 31.9 percent indicated that they don't trust the security level of the e-banking services set in place by the GCB bank.

#### **4.1.3 Benefits**

This section of the analysis is to seek to know whether the presumed benefits of using the various e-banking products/services provided by GCB Bank were true to all.

##### ***Availability of e-banking***

Another known advantage spoken of e-banking is the fact that it is always available for the customer of the bank to use at his/her own convenience. Time and place is never a

barrier, all you need is to have an access to a electronic device connected to a LAN or Wi-Fi with a data coverage. But the issue here is whether this is the case or not.

**Table 4.1.4a Is e-banking services always available**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	44	48.9	64.7	64.7
	NO	24	26.7	35.3	100.0
	Total	68	75.6	100.0	
Missing	System	22	24.4		
Total		90	100.0		

As indicated in the summary table above, out of the 68 respondent who responded to this question, 44 representing 64.7 percent answered yes to always availability of the e-banking products/services whilst 35.3 percent thus 24 of the respondents indicated that the e-banking services are not always available to access.

***Accurate, Reliable and Convenient***

In addition to the already mentioned benefits from the usage of the various e-banking products, it is said to be accurate, reliable and convenient to use. Respondents when asked about the case had some different perspective of the whole issue. Table 4.1.4b summarizes the findings.

**Table 4.1.4b Are the various e-banking services accurate, reliable and convenient**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	53	58.9	77.9	77.9
	No	15	16.7	22.1	100.0
	Total	68	75.6	100.0	
Missing	System	22	24.4		
Total		90	100.0		

Over here, out of the 68 respondents who responded to this issue, 53 representing 77.9 percent said yes, that the various e-banking services rendered by the GCB Bank are accurate, reliable and convenient to use whilst 15 representing 22.1 percent indicated that these e-banking products are not so accurate, reliable and convenient. Their reason for disagreeing would further be explained in the researcher's findings.

### ***Saves Time***

Various e-banking products are said to be time saving for both clients of the bank and employees. Thus instead of going to join long queues in the banks, one can easily make any transaction without visiting the physical banking hall and therefore reduces the number of clients that employees serve in the banks. This saves time for the employees to work on other businesses of the bank.

Respondents were asked whether this perception is true and the below frequency table summarizes the findings.

**Table 4.1.4c Does e-banking saves time?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	62	68.9	91.2	91.2
	no	6	6.7	8.8	100.0
	Total	68	75.6	100.0	
Missing	System	22	24.4		
Total		90	100.0		

The above table 4.1.4c indicate the fact that a significant number of the respondents agreed to the statement that e-banking services saves them loads of time and other monetary assets. This number is seen in the table as 62 representing 91.2 of the respondents. The remaining 6 representing 8.8percent indicated that e-banking doesn't save them any time what so ever. Their reason being the fact that their ability to use the ATM and other technology is low and therefore seek help from others which seems difficult as they have to waste their time waiting for them which wouldn't have been the case if they went the manual banking ways.

***Recommendation of e-banking***

After contemplating on the benefits so said of the various e-banking services offered by the GCB Bank, the next appropriate issue was to know if respondents will recommend them to their colleges these e-banking products.

From the below table 4.1.4d, it can be seen that the respondents to this particular question increased. Reasons could be for the fact that, some respondents who answered no to the usage of the various e-banking products decided to answer and take advantage to give reasons for not using as reason why they won't recommend.

Making 76.1percent of the respondents, 54 respondents said yes they would and their reasons would be made known in the findings whilst 17 of the respondents that is about 23.9 percent said they will not recommend it to anyone.

**Table 4.1.4d Would u recommend to another**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid      yes	54	60.0	76.1	76.1
no	17	18.9	23.9	100.0
Total	71	78.9	100.0	
Missing    System	19	21.1		
Total	90	100.0		

#### **4.1.4 Challenges**

Challenges associated with use of the various e-banking products and services are also considered as factors that influence the decision whether to adopt such e-banking product or services or not.

#### ***ICT Training***

Ability of someone to be able to access the internet and other electronic device determines one’s ability to use the various e-banking products. Therefore the question whether to one has some form of training in ICT was important in this research. The table 4.1.5a below indicates that out of 78 respondents to this question, 70.5percent that is 55 of respondents indicates that they have had some form of ICT training and therefore are able to easily access the e-banking products whilst 23 representing 29.5 of the total respondents said they have no form of ICT training but part of this group have been able

to study the form of e-banking products they use and therefore are able to manage the usage.

**Table 4.1.5a Are you trained in ICT**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	55	61.1	70.5	70.5
	No	23	25.6	29.5	100.0
	Total	78	86.7	100.0	
Missing	System	12	13.3		
Total		90	100.0		

***Staff of GCB bank helps when you face difficulties in accessing***

One challenge seen in the use of various e-banking products was the fact that when the need arises there is no staff of the bank to provide assistance. Respondents were therefore asked whether that was the case or otherwise. The table 4.1.4a summarizes the findings.

From the table below, a total number of 69 respondents answered this question. And out of which 29 representing 42.0 percent said yes to the fact that staff of GCB bank are available to assist them when they are using any of the e-banking product/service provided by the Bank and they encounter problem whilst 40 representing 58.0 percent also indicated no, that no staff of the bank has ever been around to aid.

From the perspective of the researcher this responds was dependent on the type of product that respondents are using.

**Table 4.1.5b Availability of assistance when needed**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	29	32.2	42.0	42.0
	No	40	44.4	58.0	100.0
	Total	69	76.7	100.0	
Missing	System	21	23.3		
Total		90	100.0		

***Communicating system problems, errors and update***

The bank when they always communicate the status and affairs concerning the various e-banking products and services that they offer to its customers and making them understand the conditions that has made the situation necessary indicates their regard to the users. This gets users prepared to use alternative means to make their transactions which they would have used an e-banking product/service for. The banks inability to do so can influence the user from its usage or not.

The table 4.1.5c below indicates the findings when the respondents were asked the question whether or not they are communicated to before such closure of system for whatever reason are done.

Out of a total of 69 respondents who answered this question only 19 representing 27.5 percent of the respondents said yes they are informed before such activity is done by the banks whilst 50 representing 72.5 percent indicated that they are not made known by the banks before such and activity is done making them always stuck on wait.

**Table 4.1.5c Do you get prior information before the services are shut down?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	21.1	27.5	27.5
	No	50	55.6	72.5	100.0
	Total	69	76.7	100.0	
Missing	System	21	23.3		
Total		90	100.0		

#### **4.2 Regression Analysis on the Adoption of E-Banking**

This part of the study looked at factors that influence the adoption of e-banking among customers. For the purpose of this study, the researcher expanded the variables to include communicating, frequency, accessibility, convenience, security, promotion and ICT knowledge. The reason for selecting these variables relates to the fact that the study focused on e-banking adoption from customers' perspective. Again, from the previous analyses, it came to the fore that customers' decisions were influenced by these factors though not limited to only these 7 items.

A linear regression standard is used to explain this.

**Note:**

***R** represents the correlation or relationship between the dependent and the independent variables*

***R**<sup>2</sup> represents how much of the dependent variable can be explained by the independent variables.*

***B** represents the coefficients of the independent variables.*

***Sig.** represents the statistical significance level of the model (the acceptable level of significance for this research was 0.05).*



### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.526 <sup>a</sup>	.277	.191	.36963

a. Predictors: (Constant), 9, 20, 17, 14, 5, 10, 12

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.397	.365		1.089	.281
	Promotion	.136	.107	.161	1.266	.210
	Security	.549	.136	.627	4.038	.000
	Accessibility	-.109	.152	-.127	-.716	.477
	Convenient	-.237	.156	-.241	-1.516	.135
	ICT	.074	.104	.083	.711	.480
	Communication	-.078	.113	-.086	-.695	.489
	Frequency	.158	.069	.299	2.310	.024

a. Dependent Variable: USAGE/ADOPTION

The regression equation was therefore  $y = a + b_1X_1 + b_2X_2 + b_3X_3$ .

When the values in table 4.9 are computed, the equation becomes;

$$y = 0.397 + 0.136(X_1) + 0.549(X_2) - 0.109(X_3) - 0.237(X_4) + 0.074(X_5) - 0.078(X_6) + 0.158(X_7)$$

From the analysis above, the study found that the independent variables had a low (weak) relationship with e-banking adoption. The correlation value was 0.526 (when the correlation value falls between 0.3 and 0.7, it is considered a medium correlation). The value was also positive which indicates that when the independent variables increase by 100%, e-banking adoption also increases and vice versa. The  $R^2$  value indicates that approximately 28% (.277) tendency of e-banking adoption (dependent variable) could not be explained using most the independent variables (promotion, customers' level of ICT education, accessibility, communication of breakdowns and system failures, its frequency and convenience), except only security.

#### **4.2.1 Interpretation of Result**

The first objective was to examine the level of customer's awareness of the existence of various e-banking product and services provided by GCB Bank. The analysis revealed that out of the 90 respondents, 93.3% answered yes to having knowledge of the existence of the GCB bank e-banking services. This shows that the work by the bank to propagate their various services to their customers where being accomplished by any means that they have set in place but the issue was whether or not the customers knew about all the various e-banking products or not which resulted to the fact that, they are only aware of the ones they are compelled to use by the banks, enquire of them, noticed people using and have a personal experience of using such a service from their previous bank. Even though 50% indicated the fact that they were introduced to the e-banking services by an employee of the bank, it was later gathered that they were mostly introduced to the ATM services whilst they had to go through their own means to know the availability of the other services. Respondents concluded that the GCB bank wasn't doing enough to create awareness and encourage their customers to use the various e-banking products.

The next objection was to examine the level of adoption of the various e-banking products by the customers of GCB bank and the motivating factors that encourages them to use these services. The survey indicated that most of the respondent only have adapted to the usage of the ATM because it has become the need for everyday withdrawals. The usage of these e-banking services as indicated by respondents was because of its convenience, accuracy and the secured aspect.

The next objective was to identify the benefits of using the various e-banking products by customers of the GCB bank. The survey shows that, most of the benefits discussed in the literature review were agreed to by most of the respondents. Over 70% of the respondents indicated yes to the fact that e-banking is always available, over 60% also indicated that the e-banking services provided by the GCB bank are accurate, reliable and convenient and also almost 100% of the respondents agreed that e banking saves time. The percentage that didn't agree to some of the benefits were mostly complaining on their personal inconsistencies and their inability to access these services because of the power crisis in the country currently. The respondents showed positive reaction to the fact that they will recommend the e-banking services to anyone when given the chance to.

The final objective was to know the challenges of using the e-banking products. The survey indicated on the contrary that knowledge in ICT is never an issue in the adoption of the various e-banking services especially the ATM services since it easy to use. Also it was seen that the communication between the Bank and customers when some of the e-banking services are going to go off line for various reason is very low and that users mostly are caught unaware and end up losing a business transaction to the fact that he was unable to access the e0banking services required at the time of need. Also an

upgrade of the system doesn't come with its required training and that users find it difficult to use and at worse find no one available to assist them. Generally the challenges and other situations also made some of the respondents indicated the fact that they wouldn't recommend any of the e-banking services to anyone but there were few of them who indicated that i.e. 23%.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION**

#### **5.0 Introduction**

The study investigated the adoption of electronic banking in the Ghanaian banking system a case study of Ghana Commercial Bank. In accordance with the general purpose, the study sought to find out the level of customer awareness of the various e-banking services offered by GCB, to examine their level of adoption and their usage, to identify the benefits they get from the usage of such services and finally to identify the challenges that they face in using such e-banking services.

This chapter comprises of the summary and conclusion of all that have been discovered and the findings from the study. Lastly, very important recommendations that would further the cause of quality service delivery in the banking sector have been given.

#### **5.1 Findings**

Based on the research objectives, a number of research questions were proposed. In the first place the researcher wants to find the level of customer's awareness of the various electronic banking products/services introduced by GCB Bank. An initial study indicated that the GCB bank provides the following e-banking services to its customers; ATM, Mobile Banking/SMS banking, Internet Banking, Telephone Banking and Electronic funds transfer. Customers were given the opportunity to indicate any other they knew which none could provide an addition to the list. The survey found that ATM services, SMS banking was the most e-banking services that the customers were aware of. Telephone Banking and Internet Banking and the Electronic Bank transfer were also known by few of the respondents. The further study indicated that the GCB bank is not

doing enough to promote and encourage their customers to make use of the available e-banking services. Measures they have adopted only promotes few of these services such as the SMS banking and the ATM whilst the other services are only made known to on request or demand. Currently the ATM services of the GCB bank have no charges relations but refusals to use it attract some charges.

Next, the study was to identify the adoption and usage level of the various-banking services provided by the GCB bank. Even though most of the respondents in this survey admitted to the fact that they are aware of such services, some have just decided not to use any whilst others have some reasons to the refusal. The general reason given by the respondents who said was the fact that their academic level were low and understanding the compliance procedures of such services were difficult for them. Some went to the extent of giving an instance where they had to ask a stranger to help them withdraw money with the ATM only to realise that the helper had withdrew more than she wanted and kept the rest for himself on the pretence of a crush system which held his cash in the system and came out as his was coming. The study further found out that the ATM and the SMS services were the once that most of the customers of the GCB bank were using. This just agrees to the issue of the level of their awareness.

Upon trying to inquire of the benefits that customers get from the using of the e-banking services provided by the GCB bank, the study identified that, it was convenient to use, and most customers preferred the e-banking services since it saves them time as compared to the long queues that are found always in the banking halls. Others also indicated the fact that it is available always and has no time bounds. The most interesting aspect of the benifits customers have in relation to the use of e-banking services was the fact that they felt secured. Most considered the security aspect of being up to date on the

transactions that takes place in their accounts, ability to stop and trace transactions on their own and the measure of trust to be informed via SMS.

The final objective was to find out the challenges they face by adopting the various e-banking services provided by the GCB bank. Respondents complained of the fact that they are mostly not aware when the services will be suspended by the bank because of some system upgrade or whatever reason attached to it and ends them up trying to make some transaction to no avail. The study also discovered that customers are not given the required training to be able to use the various e-banking services to the maximum satisfaction. And the imminent problem crops up when they are unable to access or perform any transaction and there is no one from the bank to assist them. Even though it was discovered in the benefits that they felt secured using it, some of the respondents indicated their uncertainty about the secured nature of these services since the internet crime and fraud has been on the increase lately.

Lastly the SPSS tool was used to make a regression analysis and determine the correlation whether the various benefits and challenges of the use of the E-banking services provided by the GCB bank has significant impact on the decisions of customers to adopt it or not. It was discovered that the yes it has effect on but one factor which is the security assurance to customers was the only pressing factor that had great impact on the decision on whether to use the e-banking services or not.

## **5.2 Conclusion**

From all of this, we have learnt that information technology has empowered customers and businesses with information needed to make better investment decisions. At the same time, technology is allowing banks to offer new products, operate more efficiently,

raise productivity, expand geographically and compete globally. A more efficient, productive banking industry is providing services of greater quality and value.

E-banking has become a necessary survival weapon and is fundamentally changing the banking industry worldwide. Today, the click of the mouse offers customers banking services at a much lower cost and also empowers them with unprecedented freedom in choosing vendors for their financial service needs. No country today has a choice whether to implement E-banking or not given the global and competitive nature of the economy. The invasion of banking by technology has created an information age and commoditization of banking services. Banks have come to realize that survival in the new e-economy depends on delivering some or all of their banking services on the Internet while continuing to support their traditional infrastructure. The rise of E-banking is redefining business relationships and the most successful banks will be those that can truly strengthen their relationship with their customers.

The findings also indicate that electronic banking products have impacted positively on the service delivery of the Ghana Commercial bank and that customer perception has greatly changed as a result of these products. Clearly, all the objectives stated for the study were achieved. It is thus the expectation of the researcher the recommendations made based on these findings should be implemented by the Bank to increase productivity and become a leader in financial service sector of the Ghanaian economy.

Analysis made in the previous chapter revealed that although Ghana is in its fundamental stages of technology advancement, GCB Bank has been successful with its adoption of e-banking.



Regardless of the various challenges from the study, it is obvious that customers are ready to embrace e-banking, provided the benefits are well promoted to them and banks are able to resolve system failure issues promptly. It can therefore be concluded from this study that there is a promising future for e-banking in Ghana.

A further study with in-depth analysis on the critical success factors for the promoting of e-banking products in the Ghanaian banking industry is required.

### **5.3 Recommendation**

There is an old Chinese saying which goes like “*If you don't know where you are going - you will never get there*”. The global financial sector is transforming under the impact of competitive, regulatory and technological forces. The banking sector is currently in a transition phase with re-alignment, mergers and entry of new players from different industry is becoming common. The only ways the existing banks can compete with the upcoming ones is to develop along the new technological transition.

The expectations of customers in recent years have increased with e-banking. Following the findings of this study, the under listed recommendations have be proposed for practice.

1. It is particularly important that GCB Bank ensures that the privacy and security of their e-banking customers are effectively guaranteed. This will embolden customers to continue using the service.
2. GCB Bank must ensure that the internet banking service is always available. Periodic routine maintenance and replacement of faulty equipment must be prompt to prevent service disruptions. And whenever these routine maintenance and replacement is being done, the users of such services should be informed accordingly to prevent any unexpected loss in transactions.

3. GCB Bank should intensify the campaign on E-banking services to prospective customers by promoting the various e-banking services they provide to their entire customers and educating them of its importance and other benefits the bank grants them from using those services.
4. GCB bank should also set measures in place to encourage their clients from introducing more customers to the bank because of their efficiency and accuracy in ensuring to provide customers with quality e-banking service which is always available rather than forcing customers to use such services. This will one way or the other informs other prospective customers not to bank with them.
5. It is important that, the GCB bank create an e-banking unit that will monitor progress and challenges of such services. This will ensure effective and efficient e-banking services.

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## APPENDICES

### APPENDIX 1

## KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY KUMASI

### SURVEY QUESTIONNAIRE

Dear survey participant,

This survey is aimed at understanding “the adoption of E-Banking on the Ghanaian banking system”. In meeting this objective, you have been duly selected as a member of the sample to provide relevant and objective data needed to satisfy the quest for this knowledge. Your answers will be treated in strict confidence and used for academic purpose only.

#### **Part I: Demographic Information**

Please respond to the following statements by ticking (✓) one answer from each question that applies to your circumstances.

(a) Sex: Male ( ) Female ( )

(b) Age: 18 – 25yrs ( )

26 – 33yrs ( )

34 – 41yrs ( )

42 yrs and above ( )

(c) Educational level: SHS ( )

Diploma ( )

Degree ( )

Master’s Degree ( )

Other, please specify.....

(d) Tenure with the bank: 5yrs and below ( )

6 – 10yrs ( )

11yrs and above ( )

**PART I - AWARENESS**

1. Are you aware that GCB bank operates various e-banking products?  
a. Yes [ ] b. No [ ]
  
2. Which of the various e-banking products are you aware of?  
ATMs [ ]  
Mobile banking (SMS) [ ]  
Internet banking [ ]  
Electronic Funds Transfer [ ]  
Telephone Banking [ ]  
Other [ ]
  
3. Were you introduced to these services by a staff of the bank?  
a. Yes [ ] b. No [ ]
  
4. If No how did u get to know and if there was another way u go to know?  
a. Through a friend [ ]  
b. An advert on the media [ ]  
c. By your own enquiries [ ]  
d. Through your experience from your previous bank [ ]
  
5. Are measures in place to encourage internet banking to customers?  
a. Yes [ ] b. No [ ]

**PART TWO – ADOPTION**

6. Do you use any of GCB Bank’s electronic banking products?  
a. Yes [ ] b. No [ ]
  
7. Name the various e-banking products you use?  
ATMs [ ]  
Mobile banking (SMS) [ ]  
Internet banking [ ]  
Electronic Funds Transfer [ ]  
Telephone Banking [ ]  
Other [ ]
  
8. What are the most important reasons you subscribe to e banking?  
.....  
.....  
.....

9. How frequently do you use any of the e-banking services?
- Not often
- Often
- Vey Often
10. Are you confident over the security aspects of using GCB Bank’s electronic banking services?
- a. Yes  b. No

**PART THREE - BENEFITS**

11. Are the staffs of GCB Bank able to provide assistance when you are having difficulties with the e-banking services?
- a. Yes  b. No
12. Is the Internet Banking service always available?
- a. Yes  b. No
13. Have e-banking services saves you time and money assets?
- a. Yes  b. No
14. Are the services provided by the GCB bank e-banking products reliable, accurate and convenient?
- a. Yes  b. No
15. Would you recommend GCB Bank’s electronic banking services to another person?
- Yes  No
16. If Yes, why?
- .....
- .....
- .....

**PART FOUR – CHALLENGES**

17. Have you got any ICT training?
- a. Yes  b. No
18. Are you easily able to manage the various e-banking services?
- a. Yes  b. No
19. In case of challenges in using a selected e-banking service does GCB make available someone to assist you?
- a. Yes  b. No
20. Does your bank inform customers when there are problems with internet banking system?
- a. Yes  b. No

21. I think e-banking is not secure and therefore there is a higher risk of fraud and theft.

a. Yes [ ] b. No [ ]

22. If your answer to 15 was No, why not.

.....  
.....  
.....

## APPENDIX II

### **E-BANKING SERVICES OFFERED BY GHANA COMMERCIAL BANK**

#### ***GCB Internet Banking***

This is a service that gives the customer of the bank access to their account always at any time and any place that the service is available through the internet. The services enable customers to transfer funds, download and print statements, request for cheque book and savings withdrawal booklet, establish and modify standing orders and make payments through the internet.

#### **Internet banking benefits**

- Safe, secure and easy to use.
- Total convenience – bank in your own time and stay in control of your finances.
- Access all your accounts from any internet enabled device, anywhere in the world.
- View all your accounts in real time.
- Keep track of all account activity – current transactions and up to six months history.
- Register to receive your bank statements through email.
- Change password / personal details.
- Internet banking is available free for all GCB customers.
- Visit the GCB website to find out about our latest promotions, products, services and more. ([gcbbank.com](http://gcbbank.com))



### ***GCB Mobile Banking***

This is an innovative service that allows the customer to perform banking transactions via the mobile phone. The service offers the customer the opportunities such as : transaction alert (informing customers of account activity), account enquires, mini statement, requesting for cheque books or savings withdrawal books, account to account transfer and even top – ups of mobile phone credits.

The GCB Mobile Banking is secured. The bank has ensured that adequate security through the issuing of Personal Identification Number (PIN) which the customer is admonished not to share with a third party.

### ***GCB Automatic Teller Machine (ATM)***

GCB offers you more convenient locations to access your cash than any other bank.

With Ghana's largest ATM network, GCB saves you valuable time waiting in branches.

Now you can perform all your basic transactions at any GCB ATM. Access your account, check your balance and withdraw money safely and securely, 24/7. The GCB bank ATM services accept various forms of cards as they have designed to suit individual customers need.

The GCB Master card is an international electronic card that allows the card holder to transact business through MasterCard branded terminals. GCB offers two types of MasterCard depending on the preference of the customer. These are the Gold Debit Card and the Standard Debit card. The Gold card offers higher personal spending limits, local and international usage, purchases and cash withdrawals directly from an account, travel information privileges, access to internet banking services and a secured flexible transactions. The Standard Card also offers what the Gold Card offers but with a secured and a lower spending limits

The GCB readycash card like the others allows the customer to withdraw cash from their accounts anytime and anywhere that the service is available. The customer can conveniently transact banking business around the clock. Service such as: cash withdrawal, checking account balance, printing of last five transactions, statement request is some of the services under this service.

### ***E – Zwich Card***

This is an initiative by the Bank of Ghana Bank in collaboration with other banks in Ghana to bring the payment systems in Ghana up to the best international standards. The e-zwich smartcard is a pre-loaded Debit Card which works both On-line and Off-line, allowing cardholders to pay for goods and services instantly from designated shops (merchants). The card is designed to provide holders the convenience of making purchases wherever the e-zwich smartcard poster/sign is displayed. It offers consumers an alternative to carrying large sums of cash for their day-to-day transaction and also provides them 24-hour access to their money. It is accepted at numerous business places (such as shops, restaurants, hotels, banks etc) throughout Ghana with a —money backll option from these outlets. After each transaction, the cardholder’s account is immediately debited and the amount involved credited to the merchant’s account. E-zwich participants includes major and rural banks, savings and loans companies, merchants, services providers, tax revenue collectors and individuals making or collecting payments for goods and services. The general public benefits from a more convenient, safer and easier way to spend and receive money by using the smart card. Its advantage over other electronic delivery services is that, it can be used in any other Ghanaian bank that operates E-zwich irrespective of where a customer opened his/her account.