

**THE IMPACT OF THE INTERNET BANKING SERVICES ON THE
SATISFACTION OF THE CUSTOMER: A CASE STUDY OF THE
AGRICULTURAL DEVELOPMENT BANK (ADB), BRONG AHAFO REGION,
GHANA**

BY

Amadu Memunatu

(PG3993815)

**A Thesis submitted to the School of Business, Kwame Nkrumah University of Science
and Technology in partial fulfillment of the requirements for the degree of**

MASTERS IN BUSINESS ADMINISTRATION

(STRATEGIC MANAGEMENT AND BUSINESS CONSULTING)



JULY, 2017.

DECLARATION

I, Amadu Memunatu, the author of this study, hereby declare that this submission is my own work towards Masters in Business Administration 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 acknowledgement has been made in the text.

AMADU MEMUNATU (MS) **JULY, 2017**
(PG 3993815) Signature Date

Certified by:

MARIAMA ZAKARIYA (MS) **JULY, 2017**

Supervisor's Name Signature Date **Certified**

by:

BYLON A. BAMFO **JULY, 2017**

Head of Department

Signature

Date

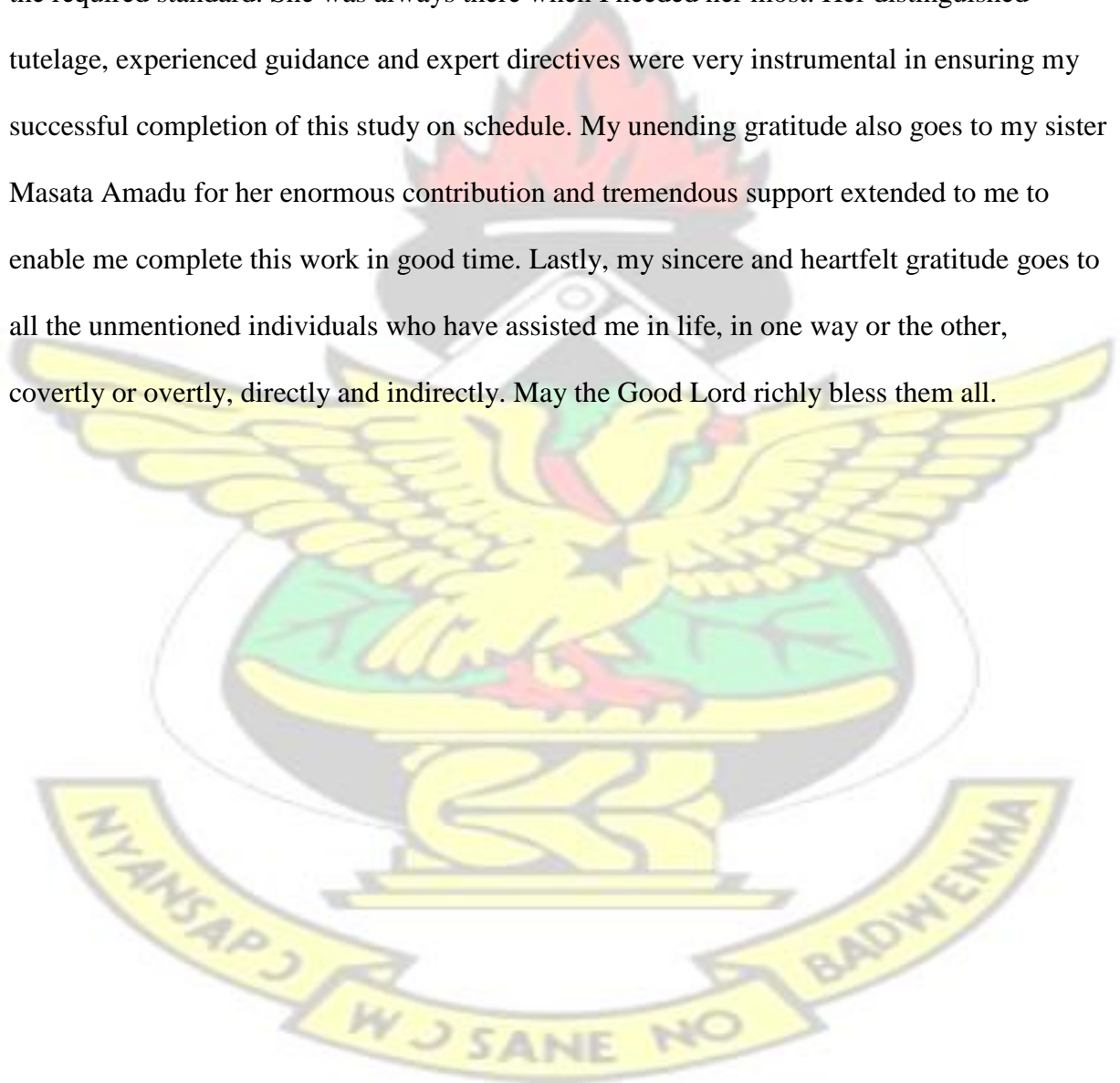
DEDICATION

This work is dedicated to my loving husband, Mr. Adams Sulemana, my children, Alelemato Nana Aisha and Boresa Abdul-Hamid, my sister Shally Amadu, Thank you all for your support, love and care. You have been a great source of inspiration to me throughout this project work. May Allah bless you all.



ACKNOWLEDGEMENTS

My thanks go to the almighty God for the successful completion of this thesis. I also wish to express my profound gratitude to my parents, my uncles, and my husband for their relentless and unwavering support and encouragement. I equally wish to thank my supervisor, MS. Mariama Zakaria of KNUST who worked tirelessly assisting me to accomplish this work to the required standard. She was always there when I needed her most. Her distinguished tutelage, experienced guidance and expert directives were very instrumental in ensuring my successful completion of this study on schedule. My unending gratitude also goes to my sister Masata Amadu for her enormous contribution and tremendous support extended to me to enable me complete this work in good time. Lastly, my sincere and heartfelt gratitude goes to all the unmentioned individuals who have assisted me in life, in one way or the other, covertly or overtly, directly and indirectly. May the Good Lord richly bless them all.



ABSTRACT

Internet banking is an internet portal which assists customers to access various forms of banking services in the form of payment of bill, withdrawal, investments and transfer. The study was embarked upon to assess the effect of internet banking adoption on the satisfaction of the customers using the Agricultural Development Bank, Ghana as a case study. Four objectives for the study were: to examine the internet banking activities of the Bank, assess the satisfaction level of the customers, the effect of the adoption on the customers' satisfaction and then assessing challenges confronting the platform. Quantitative methodology with the purposive and the convenience samplings were adopted in the selection and administration of the questionnaires which were administer to three hundred and forty respondents comprising customers and staff of the Bank in the Brong Ahafo Region of Ghana. The results of the study are that ADB internet banking platform allows users to make balance enquiry, cheque book requisition, funds transfer, checking and printing bank statements and utility bills payments. Again the study reveals that users are satisfied with the internet banking of ADB. This finding however, shows that those with high educational background are able to comprehend the platform easily in its usage without much difficulty. Also the study shows that Internet banking is more advantageous and more profitable than the traditional banking, less costly compared to face to face banking, convenient with less queuing than the traditional banking practices, even though users have concerns regarding the security and the reliability of internet banking. The challenges of internet banking based on the study include lack of infrastructure, the preference of customers for face to face banking, security risks concerns, cost of adoption for low earning customers, technological illiteracy among bankers, absence of proper laws and regulations regarding internet banking adoption.

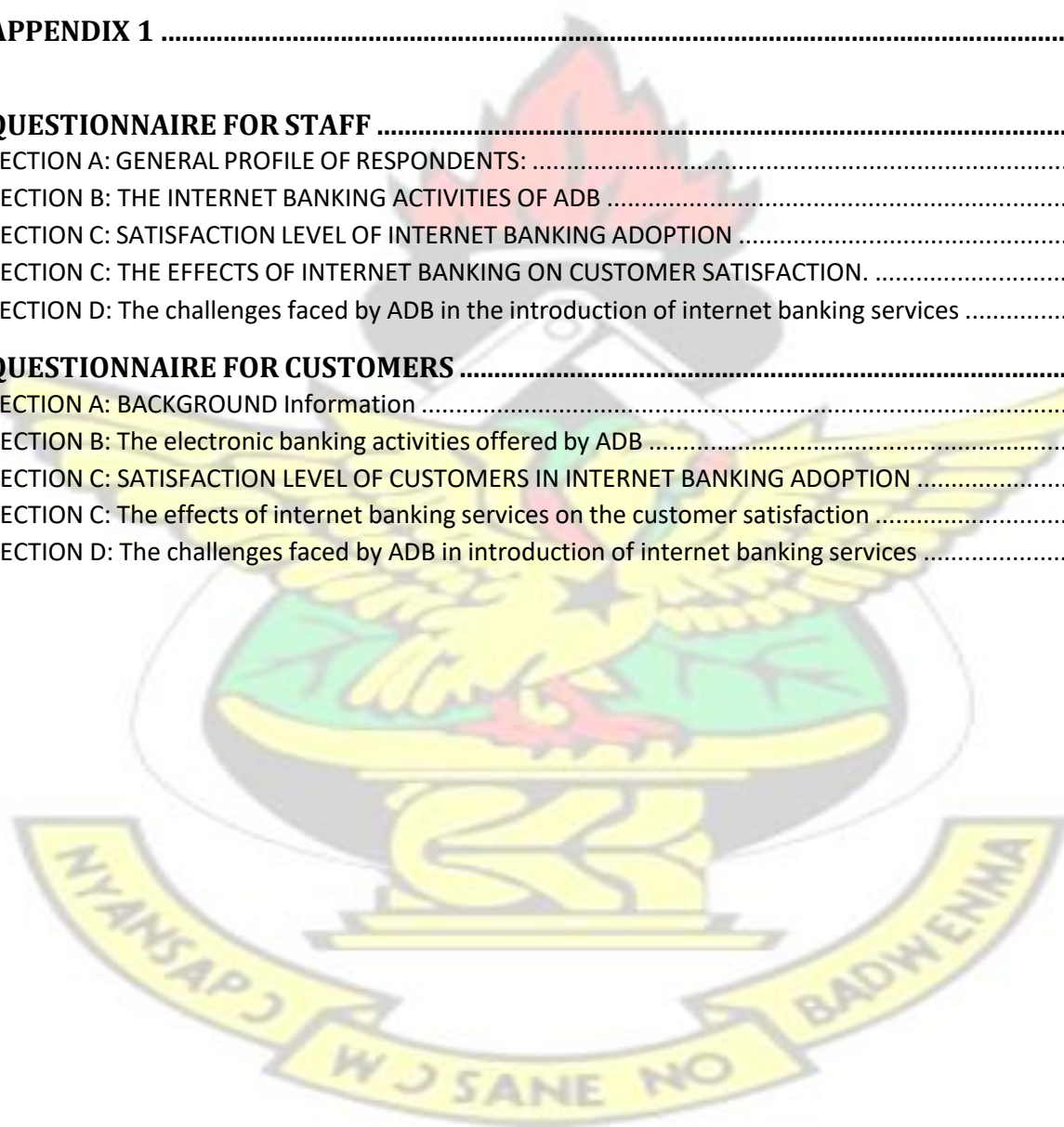
Management of ADB are therefore called upon to address this situation.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the study	1
1.2 PROBLEM STATEMENT	4
1.3 The general objective of the study	6
1.3.1 The specific objective	6
1.4 Research Questions	6
1.5 Justification of the research	7
1.6 Scope of the study	8
1.7 The methodology	8
1.8 The Organization of study	8
CHAPTER TWO	10
2.1 The concept of Internet banking	10
2.2 The theoretical framework for adoption of technology	14
2.2.1 The Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)	15
2.2.2 The Perceived Risk	16
2.2.3 Computer self-efficacy	17
2.2.4 The availability of access to Internet and the Quality of Internet connection	17
2.3 Customers reluctance to change	18
2.4 The history of Banking Institutions in Ghana	19
2.5 Form of internet banking activities	20
2.5.1 Mail Banking	21
2.5.2 Mobile/Telephone banking	21
2.5.3 Short Message Service (SMS) Banking	22
2.5.4 Point-of-Sale Transfer Terminals (POS).....	22
2.4.5 PC Banking.....	23
2.5.6 Automated Teller Machine (ATM)	23
2.6 The effect of Internet banking activities on the banking sector in Ghana	24
2.8 The internet banking activities of ADB	27
2.9 The concept of customer satisfaction	28
2.10 Evaluating the level of the customer satisfaction	30
2.11 Customer satisfaction in the banking sector	31
2.12 The relationship between internet banking adoption and the customer satisfaction	31
CHAPTER THREE	36
METHODOLOGY	36

3.0 INTRODUCTION	36
3.1 THE RESEARCH DESIGN	36
3.2 POPULATION	37
3.3 SAMPLE SIZE	38
3.4 THE SAMPLING TECHNIQUES	39
3.5 SOURCES OF DATA	40
3.5.2 Secondary Data	41
3.7 DATA ANALYSIS	42
3.8 RELIABILITY AND VALIDITY OF DATA	42
3.9 ETHICAL ISSUES	43
3.10 PROFILE OF THE AGRICULTURAL DEVELOPMENT BANK (ADB)	44
3.10.1 The Background of ADB	44
3.10.2 Products and Services	45
3.10.3 Branch Network	45
3.10.5 Awards	46
3.10.6 Corporate Responsibility	46
CHAPTER FOUR	47
PRESENTATION, ANALYSIS AND DISCUSSION	47
4.0 INTRODUCTION	47
4.1 THE BACKGROUND INFORMATION OF THE RESPONDENTS	47
4.1.1 Marital Status of Respondents.....	48
4.1.2 The Age of the Respondents	48
4.1.3 The Educational Level of the Respondents	49
4.1.4 Employment Years with the ADB	50
4.2 INTERNET BANKING ACTIVITIES	51
4.2.1 Forms of Banking Services Provided by ADB	51
4.2.2 ADB Internet Banking Activities	52
4.3 THE CUSTOMERS' SATISFACTION LEVEL ON ADB INTERNET BANKING	54
4.3.1 Length of Time in Using Internet Banking Service	54
4.3.2 The Benefit of the Internet banking services as provided by ADB	55
4.3.3 Advertisement of ADB's Internet Banking	56
4.3.4 The Satisfaction Level of Customers	57
4.4 THE EFFECTS OF INTERNET BANKING SERVICES ON THE CUSTOMER SATISFACTION	60
4.4.1 Correlation Analysis on reliability and security of internet banking.....	63
4.4.2 Regression analysis on the effect of internet banking adoption on customer satisfaction	
4.5 THE CHALLENGES OF INTERNET BANKING SERVICES	66
CHAPTER FIVE	69
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION	69
5.0 Introduction	69
5.1 THE SUMMARY of THE findings	69
5.1.1 Internet Banking Activities	69

5.1.2 The Satisfaction Level of Customers	70
5.1.3 The Effect of Internet Banking Adoption on Customers' Satisfaction	70
5.1.4 The Challenges of Internet Banking Adoption	71
5.2 Conclusion	71
5.3 RECOMMENDATION	72
5.3.1 Establishment of policy to address cost associated internet banking	72
5.3.2 Strengthening technological activities.	72
5.3.3 Increasing global security	72
5.3.4 The Challenges of Internet Banking	73
REFERENCE	74
APPENDIX 1	80
QUESTIONNAIRE FOR STAFF	80
SECTION A: GENERAL PROFILE OF RESPONDENTS:	80
SECTION B: THE INTERNET BANKING ACTIVITIES OF ADB	80
SECTION C: SATISFACTION LEVEL OF INTERNET BANKING ADOPTION	81
SECTION C: THE EFFECTS OF INTERNET BANKING ON CUSTOMER SATISFACTION.	82
SECTION D: The challenges faced by ADB in the introduction of internet banking services	83
QUESTIONNAIRE FOR CUSTOMERS	84
SECTION A: BACKGROUND Information	84
SECTION B: The electronic banking activities offered by ADB	84
SECTION C: SATISFACTION LEVEL OF CUSTOMERS IN INTERNET BANKING ADOPTION	85
SECTION C: The effects of internet banking services on the customer satisfaction	85
SECTION D: The challenges faced by ADB in introduction of internet banking services	86



LIST OF TABLES

The table 3.1: A table showing the sample size for the study	39
Table 4.1: A table showing the internet banking activities of adb	52
Table 4.2: A table showing a descriptive statistics of satisfaction level of internet banking	57
Table 4.3: A table showing correlation analysis on the level of satisfaction of internet banking	58
Table 4.4: A table showing the effect of internet banking adoption on the customer satisfaction	60
Table 4.5: A table showing correlation analysis on the perception of reliability and security of internet banking	63
Table 4.6: A table showing regression analysis on the effect of internet banking adoption on the customer satisfaction	63
Table 4.7: A table showing the challenges faced by adb in introducing internet banking	66



LIST OF FIGURES

Figure 2. 1: internet banking model	14
Chart 4.1: a chart showing the marital status of the respondents	48
Figure 4.2: a figure showing the age of the respondents	48
Chart 4.3: a chart showing the educational level of the respondents	49
Chart 4.4: a chart showing the number of years worked with adb	50
Chart 4.5: a chart showing the internet banking services provided by adb	51
Chart 4.6: a chart showing the length of time in using internet banking service	54
Chart 4.7: a chart showing the benefit of the internet banking services as provided by	55
Chart 4.8: a chart showing the mediums of internet banking advertisement	56
Chart 4.9: a chart showing the satisfaction level of the internet banking adoption	58



CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Internet banking has ushered in rapid changes in the banking sector. The growth of the Internet together with its application has given rise to various opportunities for its utilization by many institutions ranging from small and medium enterprises to bigger firms in their day to day activities (Lallmahamood, 2007; Chau and Lai, 2003; Rashid and Al-Qirim, 2001).

The Ghanaian banking sector initially started with a manual procedure with numerous inefficiencies, cumbersome, time consuming, stealing and misappropriation practices. The old system of the brick and mortar way of banking has however developed rapidly through the applications of internet banking due to the spread of the technological innovations, awareness creation the customers' demand. Good quality of service is broadly deemed as the surest way of keeping the existing customers and also acquiring new ones, reduction of costs, enhancement of good image of the corporation, generation of a positive recommendations, and then improvement of profit (Kang and James, 2004). It is based on this circumstances that have led banks and other financial sectors within Ghana in investing large sums of money in the development of internet services and infrastructure for the benefit of their customers.

According to Malhotra and Mukherjee, (2004), the industry of the banking plays an important role in the socio-economic and the financial development and progress of every country as the expansion of every nation is based on the usefulness and the competence of the financial industry and its effects on the other segment of the economy. This, however the industry players within the financial sector unquestionably faced various issues militating against the industry globally. Therefore, it is important for financial institutions to comprehend the customers'

dynamic changing desires in relations to the use of internet application in order that companies would be able to do their businesses competently on the international financial market.

According to Auta, (2010), the internet banking adoption started to happen largely as a distribution channel for financial services as a result of the rapid technological growth and the demanding nature of viable market of banking sector in recent times. Currently, banks are attaining various forms of benefits from the adoption and utilization of the services of the internet technology (Lallmahamood, 2007). For instances as opined by Tan and Teo, (2000), financial institutions and the banking sector have put in place the utilization of web services in their service delivery which has helped them in capturing a larger share of the market financially.

Internet banking could be said to be an internet portal which assist customers to access various forms of services of the banks in the form of payment of bill, withdrawal, investments and transfer. These services of the banks are able to be accessed remotely through the use of internet and electronic device. Again, Internet banking involves the application of electronic devices such as computers or mobile phone in undertaking various forms of transaction and information. It is a quick service that permits the customers of financial institutions in the usage of electronic device in accessing account-specific details and then undertaking of transaction from remote areas either from the house or the place of work. The products and the services of Internet banking are geared toward replicating and replacing many of the human which are done by the banks. It is therefore said to be a form of virtual banking services that assist banking operations with a little human interaction and involvements. The application of the internet services within the banking industry helped customers in the operation of financial service and transaction quickly and conveniently.

Internet banking has therefore brought about quick growth in the banking industries which has resulted in proliferation of all forms of electronic developments in the growth of financial

markets and intermediation with services including but not limited to e-finance, e-money, e-banking, e-brokering, e-insurance, e-exchanges, and even e-supervision. The application of internet banking has therefore become indispensable tool championing the future growth of the strategies of banks and other business ventures (Auta, 2010).

A study by Kardaras and Papathanassiou (2001) revealed that ICT has greatly brought down the cost of business transaction due to the cards and businesses provisions. To this that Kyeremanteng (2014), added by saying that, the technology has been able to provide customers and businesses with enhanced innovative products and services which has assisted firms in their distribution channel and serving their customers in a better and improved process.

According to Chaffey et al, (2006), and Berger, (2003) it is essential to offer the customers with enhanced interactive website as banking through electronic processes has come as channel for strategic resource needed for attaining an increased operational control, reduction of cost and efficiency through replacement of the paper based and the labour intensive processes with techniques which will results in a more increased productivity and profit. Thus the existence of a more superb services delivery which is incorporated with a distinctive consumer product is a stronger mechanism for catering for the needs of the customers of the firms.

This is necessary based on the fact the various banks are providing products which are similar to their competitors on the market. These situations have made it possible for the various banks in detail attention quality service delivery so as to be able to obtain increased competitive advantage over their peers on the financial market. It must be noted that banks that are able to provide quality of services derive maximum edge over their counterparts in terms of a higher revenue generation and customer satisfaction (Kumar et al., 2010). This study therefore is embarked upon to assess the impact of internet banking on the customer satisfaction using the Agricultural Development Bank as a case study.

1.2 PROBLEM STATEMENT

According to Appiah and Agyemang, (2005), the banking sector in Ghana has experienced intense changes in recent years. The banking sector in the time past was without any simple form of electronics systems such as ATMs and SMS alert which thus propelled all customers of the banks to walk personally to the banking hall so as to be able to transact or access the existing banking services. The prevailing phenomenon therefore led to long queues, laborious and time consuming and a costly form of banking operations in the country.

In addition to the above physical cash, long distant travelling and paperwork was the features of majority of the payment systems in the country.

However, the situation has in recent times been transformed as a result of the emergence of internet banking services into the Ghanaian banking industry by the various banking sector. Technology in the form of ATMs, Electronic Funds Transfer at Point of Sale (EFTPOS), internet banking, SMS alert, credit cards and debit cards have changed the banking scene in Ghana. These technological innovations adoption have led to reduction of pressures on the manual services delivery to the customers of the banks which currently could be deemed to have witnessed enhanced delivery of services (Marfo-Yiadom and Ansong, 2012).

According to Marfo-Yiadom and Ansong (2012), even though ATMs, one of the internet banking services is noted to be among the ultimate electronic innovation game changing tool in the banking industry in the country, a searched for published studies on the actual impact of internet banking on the customer satisfaction in Ghana are difficult to find.

Again, some of the existing studies are geared towards issues such as ‘Why consumers are not using internet banking’ (Gerrard, et al, 2006); ‘the impact of internet banking on the profits of banks’ (Onay, et al, 2008); ‘Turkish consumers' acceptance of internet banking services’ (Mia, et al 2007); ‘the effects of internet banking on the risks and performance of banks’ (Prakash and Malik, 2008); ‘the effects of internet banking on business-customer relationships’ (Johns,

and Perrott,2008); _analyzing the adoption factors that influence the internet banking in Mauritius' (Polatoglu, and Ekin, 2001) and then _Internet banking in the third world countries' (Salhi, and Alipour, 2010) among others. This situation therefore means that there is a need to examine the impact of internet banking services on the customers' satisfaction.

Again the available and the existing scholarly work done in relation to internet banking are more of the advanced nations banking industry (Al-Ghamdi, 2009 ; Gerrard, et al. 200; AlSomali, et al 2008; Avasthi and Sharma 2000; Bauer and Hein, 2006; Cunningham, et al 2006; Johns and Perrott, 2008; Liao and Cheung, 2002; Kim, et al 2005; Pikkarainen, et al 2004; Onay, et al 2008;). In other part of Asia, studies have also been conducted (Daghfous, and Toufaily, 2007; Wan, et al 2005; Malho tra and Singh, 2009; Laforet and Li, 2005).

Internet banking studies have also been held in other part of Africa (Auta, 2010; Chiemeko et al 2006; Padachi, et al 2007; Wondwossen and Tsegai, 2005; Gardachew, 2010; Salhi, and Alipour, 2010).

Within the shores of Ghana reference could however be made to (Akinci, et al 2004; Ahmed, 2006; Amadeh and Jaafarpour, 2009; Marfo-Yiadom and Ansong, 2012; and Darko, 2015).

Analysis of these studies especially those conducted within the country, revealed that it was more geared towards some aspects such as internet banking service delivery, internet banking adoption and then the impact of the technology on the profitability of the banks among others.

This means that there is a need to undertake a further study which is peculiar to the internet banking utilization and its impact on the satisfaction of the customers among the Ghanaian banking sector. This study therefore seeks to determine the impact of the internet banking application on the satisfaction of the customers using the Agricultural Development Bank as a case study. This is the study gap which this research seeks to fill. In this regard the current

study seeks to organize and establish the impact that internet banking has had on customer satisfaction among customers of ADB in the selected branches of the bank.

1.3 The general objective of the study

The general objective of the study is to examine the impact of internet banking on the satisfaction of the customers using the Agricultural Development Bank as a case study.

1.3.1 The specific objective

The following have been chosen as the specific objective of the study.

1. To assess the internet banking activities of ADB.
2. To assess the satisfaction level of the customers of ADB on the use of internet banking.
3. To assess the effect of the internet banking on satisfaction of the customers of ADB.
4. To determine the challenges faced by customers of ADB in the introduction of internet banking.

1.4 Research Questions

Based on the research objectives, the study will test the following questions:

1. What are the internet banking activities of ADB?
2. What are the satisfaction levels of the customers of ADB on the use of internet banking?
3. What are the effects of the internet banking on satisfaction of the customers of ADB?
4. What are the challenges faced by customers of ADB in the introduction of internet banking?

1.5 Justification of the research

This study is being undertaken to promote the development of scientific research in examining the effects on the adoption of the internet banking on the satisfaction of the customers in Ghana.

This study would therefore help in comprehending the effects on the customers' satisfaction and the financial industries efficiency of operations as a result of the utilization of the internet

banking. Again, the findings will serve as addition to the existing scholarly studies which has been carried out within the Sub-Sahara Africa especially Ghana. The researcher again considers that the results of the study would exclusively be added up globally to the discussion on the effects of internet banking services adoption on the satisfaction of the customers who are keen major players around which the success or otherwise of any financial institutions revolves. Again this research would be significant in the planning operations of the financial industry players due to the fact that the study also seeks to examine the challenges that confront the customers since the introduction of internet banking applications within the financial sector in Ghana.

Furthermore, the results of the study will help researchers and academics as a form of a vital reference material in their pursuit of examining the contribution of internet banking to the delivery of service within the banking industry in Ghana. Finally, it is also expected that this research work will offer the necessary fact to the Bank of Ghana and other regulatory bodies to task the various banks in Ghana in strengthening their technological activities so as to be able to excellently serve their customers thereby improving revenue generation.

1.6 Scope of the study

This research work will entirely cover all the financial institutions in Ghana. It must however be stated that the study would specifically focus on the application of the internet into the operations of the Agricultural Development Bank (ADB) with the emphasis on the Sunyani, Techiman, Berekum and Dormaa Ahenkro branches within the Brong Ahafo Region of the Republic of Ghana as a case study. The focus of the study would therefore be on the operations of ADB in terms of the satisfaction of its customers on the application of internet banking. The study again will focus on the timelines of the ADB since its branding in 2010 that is the period from 2010 to 2016.

1.7 The methodology

This study would utilize a quantitative research technique in examining the research questions. The researcher deemed this approach as important as it would assist in the collection of numerical data that will serve the purpose of this study. The data collection for this research work would be based on structured and a well-designed questionnaire from selected respondents from the Sunyani, Berekum, Dorma Ahenkro and the Techiman branches of the ADB in the Brong Ahafo Region. This methodology to the data collection of data was selected as the researcher pursuance in examining the internet banking activities, the effects, the satisfaction level and the challenges relating to internet banking and customer satisfaction within the financial sector in the country needs a numerical data in order to deduce the actual impacts devoid of any subjective inferences.

1.8 The Organization of study

This research work would be made up of five chapters which would comprises the background to the study, the problem statement, the objectives of the study, the research questions, the justification of the study, the scope of the study, the selected methodology and the organization of the study.

The chapter two is based on the review of the relevant existing literature that explains the concepts and theories behind internet banking and customer satisfaction within the financial industry. The research design, the approaches for the data collection, the population, the sample size and the sampling technique, the data processing and analysis and then a brief profile of the Agricultural Development Bank would be the focus of the third chapter.

The fourth chapter of the work would be based on the data presentation, analysis and then comprehensive discussions of the results of the study. This last chapter, that is chapter five, would be based on the summary, the conclusion of the findings and recommendations.

KNUST



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter two of this work takes a look at the literature review related to internet banking and its application on the banking sector. The chapter begins with a review of the concept of internet banking and some analysis of certain key internet banking tools such as, ATM, telephone banking and PC banking, the theory of adoption, service delivery, the contributions of internet banking to the profitability of banks, the challenges of adoption of the internet banking within the financial sector and then the concept of the customer satisfaction.

2.1 The concept of Internet banking

A major happening within the banking sector is the utilization of the internet as a medium for financial activities. The Internet banking, also known as online banking, e-banking or virtual banking is now a growing trend within the banking sector, even though its usage has never been easier for its consumers (Eriksson, et al, 2005). The use of the internet banking by consumers demand the acceptance of the technology components which could be complex as it involves behavioral patterns changes (Meuter, et al, 2000).

In recent time, however, the growth of the information technology and its resultant fast developments of the internet banking have basically brought about changes in the means by which the various financial institutions undertake their business operations as well as how the consumers pursue their daily financial activities (Eriksson, et al, 2008; Sayar and Wolfe, 2007). According to Shih and Fang, (2004), one importance among the lot of having internet banking is the ability to curtail the cost involved in keeping a traditional branch network.

According to Achour and Bensedrine, (2005), the term Internet Banking (IB) could be explained as the application of the internet as a remote transfer medium for financial services to access their financial account details and other banking operations. Internet banking helps customers to undertake various forms of banking operations electronically through the web sites of the bank ubiquitously faster and with fees lower as against the usage of the branches of the traditional real-world banks (Krauter and Faillant, 2008). Again, internet banking is the usage of personal computer (PC), other access devices and the accessibility of internet in undertaking banking operations (Gkoutzinis, 2008).

According to Tait and Davis, (1989), the Nottingham Building Society and the Bank of Scotland in the early 1980s were first to introduce the internet banking activities. These services activities were however, discontinued as it was not widely embraced by the customers of the banks. With the quick growth of information technology and electronic services in the early part of the 1990s, the financial sector started to unveil the service of the Internet banking (Daniel, 1998). In the last part of the 1990, many expected that Internet banking services in the form of online loan applications, banking transactions and payments of bills payments would be the basis standard of the industrial sector. These anticipations of the internet services were however grasped within a much shorter period than anticipated (Jenkins, 2007).

The financial sector are utilizing their websites as a way of providing typical banking operations in the forms of transfer of funds or account details, stock trading in world markets, payments of bills, request for check book and credit card and them the provision of investments advice (Guru et al., 2003) all without even visiting the premises of a bank (Mukherjee & Nath, 2003).

According to Ainin et al., (2005), the Internet banking has increasingly become so common tool being used by most of the banking sectors in the cost reduction of banking operations that comes with employing a person in undertaking such activities. with the use of the internet

banking , these banking activities have become shorten, fast, improved, flexible with an added value creation leading to a better service delivery. The services as opined by Ainin et al., (2005), could be said to be the basis of the electronic payment system that makes it possible for clients of the various banking sectors to undertake various forms of business activities via the use of the websites of that particular bank.

The internet banking is again noted to be having an access 24 hours to the use of Automated Teller Machine (ATM) and a Personal Identification Number (PIN) to perform banking services such as direct payment or deposit or withdrawing (Marsh, 2005). According to Bhattacharjee (2001), internet banking is a form of an integrated system that is able to give a flexible, convenient and inexpensive basis for a form of using online services such as personal banking products, checking and saving accounts, money market accounts, certificate of deposit, credit cards, home equity loan, home mortgage, insurance, investment services and portfolio management. The internet banking is able to bury the conventional banking process of customers attending to banks premises to undertake various forms banking transactions. By this process, the usage of internet in banking has paves ways for the clients of the various financial institutions to undertake banking activities as they deemed fit in whatever way possible.

According to Howcroft (2002) internet banking system provides customers with a set of information-related benefit that makes it possible for the clients to make decisive investment and financing decisions and also to undertake services relating to control of bank accounts detail conveniently at any time and place. Usually the internet banking system will basically connect to or form part of the basic system being used by a financial institution as against the usual traditional banking practices by which clients access the various banking services.

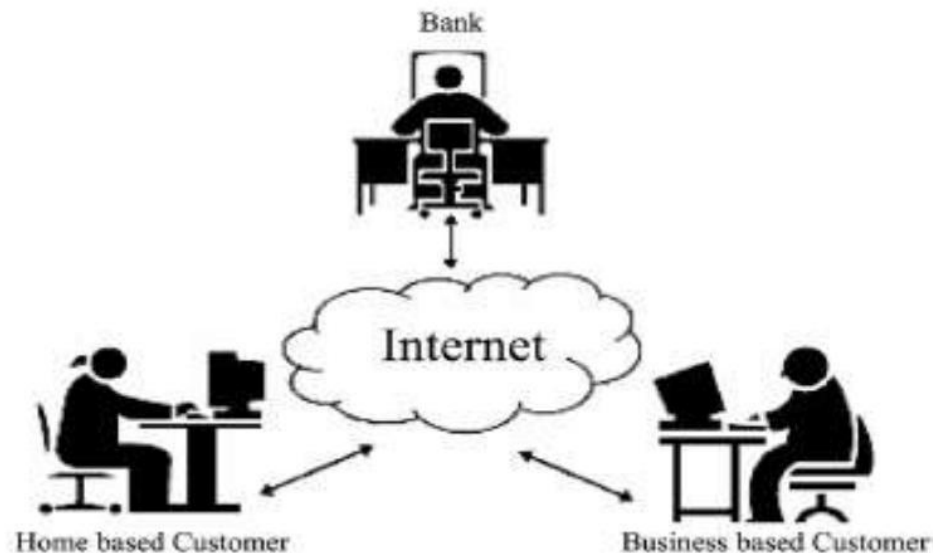
According to Chau & Lai, (2003), the quick development of commonality of the internet applications has ushered in huge opportunities as well as dangers to the business environment who are using the services of the internet as a medium in creating and delivering their products and services.

The Internet banking is portal of the internet by which the clients are able to utilize it in various ways in accessing services such as payments of bills and making of investments decisions (Pikkarainen, et al, 2004). Aside withdrawal of cash, the internet banking is able to provide clients of the various banks a total access to any forms of banking operations in a matter of a second (De Young, 2001).

Bill Gate in 2008 insinuated that any conversational bank that is not able to utilised the benefits of the Internet Banking in its operations is bound to be extinguished in his famous saying: —banking is essential, banks are not. Bill Gates seeks to suggest that the traditional banks who fail to replicate internet in their operation could expunge from the financial market. To him, the financing sector if they able to adopt and use the internet technology in their daily operation, would be able to improve the service level of their customers which would thus help retain the loyalty of these customers.

According to Debnath (2007), the changes of growth found within the business environment, have made it possible for financial sectors to exploit the availability of the application of website in strengthening the importance of internet to gain to competitive advantage. This that Karjaluoto et al. (2002) added by saying that ‘_banking is no longer bound to time and geography, and so customers all over the world have relatively easy access to their accounts 24 hours a day and 7 days a week’. According to the authors, the application of the internet into the operations of the banking sectors has made it possible for customers in avoiding the traditional banking practices of brick and mortar for the new application of clicking a mouse or a button to have transaction within a matter of a second. According Cai, et al, (2008), to the

application of internet banking gives to the customers easy access, up-to-date content, lower cost of transaction, access through multiple media and increase in interactivity.



Source: Johns & Perrott (2008)

Figure 2. 1: Internet banking model

As shown in the figure 2. 1 above, the application of internet in banking gives the individual and corporate customers to easily perform any transactions with their selected banks in a matter of second without necessarily physical presence at the premises of the bank concerned (Johns and Perrott, 2008).

2.2 The theoretical framework for adoption of technology

According to Yi.Shun et al (2003), the technology acceptance model (TAM), the perceived ease of use and the perceived usefulness are fundamentally said to be concepts for the principle in the determination and acceptance of the various products of Information Technology. However, these held beliefs might not explicitly be able to elucidate the user's behavior toward internet banking, a new emerging Information

Technology application.

The technology acceptance model (TAM) is one of the most utilised models in the study of the acceptance of the information system (Al-Gahtani, 2001; Davis & Venkatesh, 1996; Davis, et

al, 1989; Gefen and Straub, 2000). The TAM as suggested by Davis (1989) is mostly used for the explanation and the prediction of the end-user's acceptance of the information systems (IS). The suggestion has however been corroborated by various research findings on the various on information technology submissions overtime. The TAM, an extension of the Theory of Reasoned Action (TRA), was put together by Fishbein and Ajzen in 1977 to explain the psychological elements of behaviour. As explained in the TRA, the performance of a person in a particular action could be determined by the person's behavioral intentions (B I), which are borne from the function of individual attitudes (ATT) that is the feelings of the individual's whether good or bad in the performance of that behaviour and then the subjective norms which is also the individual's held beliefs that particular person or entity approval or disapproval in the performance of such behaviour (Fishbein & Ajzen, 1975). By these fundamental elements from the TRA, the TAM assumed that two individual held beliefs on the concepts of the Perceived Ease Of Use (PEOU) and the Perceived Usefulness (PU) of the information system determines individual attitudes which then result in behavioural intentions resulting in behaviour of the individual in using the new system

(Davis, et al, 1992; Venkatesh and Davis, 1996). The model is further explained below:

2.2.1 The Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)

Within the TAM, the PU is the most influential factor which is noted to have an immediate impact on the BI, thus determining the rate of ATT and then mediating the impacts of PEOU on the BI. However, the PEOU, as a secondary factor, have only an immediate influence on the ATT towards the use of the system (Karahanna and Straub, 1999).

The PU is explained as the extent by which an individual believes that utilizing a peculiar information system or application could helped improve the individual performances of a job.

As explained in the TAM, PEOU is a most important element that impacts the acceptance of the information system (Davis, et al, 1989). According to Davis (1989), is noted to be the extent

by which an individual believed that a particular system usage is devoid of effort or strength (Davis, 1989). This means that any application that is perceived to be easier in its usage has a high proportion for its adoption by the customers than that of the other counterpart. Various research studies support empirically, that the PU and the PEOU have major roles in the prediction and the determination of the usage behaviour of any technology acceptance circumstances (Horton, et al, 2001; Karahanna and Straub, 1999; Moon and Kim, 2001; Venkatesh, et al, 2003; Venkatesh and Davis, 2000).

2.2.2 The Perceived Risk

The concept of the consumer-perceived risks has been extensively studied and this has been corroborated to indicate that it has the ability to influence the behaviour of the consumer to some extent and in various circumstances (Cunningham, et al, 2005). The perceived risk has been studied by many studies and concluded it as one of the important factors in the consumers' adoption (Hansen, 2005; Polatoglu and Ekin, 2001; Tan & Teo, 2000).

According to Littler and Melanthiou, (2006), researchers of the consumer behaviors, usually explained the perceived risk as the perception of the consumer based on the uncertainty and potential opposing consequences of purchasing a product or service. In relating to the Internet banking, the perceived risk is explained as the security and reliability of transactions by the Internet.

The perceptions of the risk of the consumers are noted to be powerful in influencing the choices, evaluations and their behavior strongly (Campbell and Goodstein, 2001). The absence of security and a possible absence of privacy have been identified as major hindrance to adoption. For instance as concluded in Howcroft, et al (2002), the security concerns is the most essential cause in deterring customers from the adoption of the internet banking services. De Ruyter, et al (2001) as quoted in Amini et al (2014) have argued that the perceived risk, as a serious features is certainly applicable to services which has no alternative way of deriving quality cues

from the aspects of the tangibles. The perceived risk heighten with a higher levels of uncertainty or with an increased opportunity of negative results (Campbell & Goodstein, 2001).

2.2.3 Computer self-efficacy

Basically, previous studies have opined a positive connection between the experience with computing technology and the various results which affects the computer and its usage (Agarwal and Prasad, 1999; Harrison and Rainer, 1992; Levin and Gordon, 1989; Wang, et al, 2003). Computer self-efficacy is explained as the evaluation of a person's ability in the usage of a computer (Compeau and Higgins, 1995). Other studies on the concepts including Agarwal, et al, (2000); Johnson & Marakas, (2000); Hong et al, (2001) and Chau, (2001) have corroborated that the computer self-efficacy concepts plays a critical role that helps to understand the individual response to information technology.

2.2.4 The availability of access to Internet and the Quality of Internet connection

The availability of access to computers or Internet is fundamental in adopting the service of the internet banking. This is due to the fact that the commonality in accessing computers or the internet brings about a greater possibility of people moving into internet banking.

According to studies done by O'connell (1996) and Sathy (1999) in Australia, Daniel (1999) in the UK & Ireland, Gerrard, et al (2006) in Singapore, there was insufficient or probles with accessing computers and that accounted for the low patronage in the internet banking in those period of time. A study by Pikkarainen, et al (2004) have unearth the quality of the internet connection as an essential factor on the adoption of the internet banking. Thus, a proper internet connection and accessibility is essential for effective internet banking to progress.

2.3 Customers reluctance to change

According to Kyeremanteng (2014), change is an unavoidable aspect of every entity in any social existence. However, most customers quite often are reluctant and are parallel to the

concept of change particular whenever the resultant effect of the change could dislocate them from their comfort zone. The author concluded that, the resistance to change by the individuals indicates the attempt to hold unto the prevailing factors as against the pressure to change. Kyeremateng (2014) was in support of the study by Daniel (1999) which concluded that there is always a higher level of the inertia of the customers in the change of their existing banking arrangements. Again according to Sathye (1999), customers especially the elderly are always in support of personal interaction with the staff of their banks and thus the absence of the physical contact have made them to develop phobia for the technology.

According to Kyeremanteng (2014), at the individual level, most resistance emanating from people are usually as a result of their self-held phobia due to unknown reason from the impact that the change could ushered on them and their family in relation to their social status, the fear of unknown, tradition, corporate image and other form of existing relationship.

In order to combat these menace resulting from resistance to change, Kyeremanteng (2014), recommended by saying that management must endeavor to initiate programs approaches to reduce resistance to change. The recommendation included efforts such as awareness creation, communication, participation and involvement, facilitation, empathy and support and then negotiation and agreement. These strategies in managing change is essential as the adoption of any new technology usually brings about great deal of resistance as a result of the interplay of several factors in human existence including the fear of the unknown.

2.4 The history of Banking Institutions in Ghana

A bank is a financial entity established to receive deposit from the customers and to give the excess as loans to individuals and organizations. According to Badu, (1994), banking, as an entity was initially brought to Africa about three hundred years by the colonial traders' masters. Dated in the period of 1888, the Saving Bank of the Government was established in the then

Gold Coast (Sowa, 1997). After this establishment, ten years later, the British bank of West Africa which is now the Standard Chartered Bank of Ghana established a branch in Accra, Ghana. This bank was later on joined by the Colonial Bank (Sowa, 1997).

The country however set up its own central bank soon after independence in the year 1957. This establishment was later followed by the Ghana Commercial bank establishment, the first state-owned commercial bank for the country (Badu, 1994). It must be stated that the Bank of the Gold Coast was first opened on the May 20th, 1953 after the passage of the Gold Coast Ordinance of October, 1952. A number of banks were later to the establishment to help the developmental agenda of the then government. Among these banks included the National Investment Bank (NIB) which was put in place and started operations in 1964 to assist the expansion and growth of the business entities. Other banks which were also established included the Agricultural Development Bank (ADB) which was put in place as the Bank of Ghana Rural Credit Unit in 1965 to help the farmers in their operations. Again the Bank for Housing and Construction was put in place 1972 to help growth and development of the housing and building infrastructure in the country (Sowa, 1997)

According to the BoG (2011), the past few years have witnessed a remarkable growth and development of the banking sector in the country. The banking sector in the country as shown in the BoG (2011) report could be said to be sound in capitalization with liquid profitability and evidence of asset growth. It must be stated that the financial sector in the country has gone through severe financial and reputational damage as a result of the 1980s and 90s' governmental debt and the economic recession. Due to this incidence, banks and other financial institutions stopped the practice of lending to the individuals and the private sector (Kunateh, 2009, BOG, 2011). The banking sector has of the recent times witnessed exponential capital injection due to political stability, micro and macroeconomic stability attainment and then the

desire of the various governments in making Ghana as the ‘financial hub’ of the Sub-Saharan Africa. These that have made it possible for many of the banks to roll out the utilization of the internet banking, smartcard technology, mobile phone banking and the application of the biometric technology as a means for their operational areas so as to achieve the desired customers’ satisfaction.

By the year 1996, there were about five commercial banks, seven merchant banks and three developmental banks with a number of rural banks. A report released by the BoG in 2015 however says that there are about 28 commercial banks which have been permitted to operate legally in the country in addition to a number of other financial institutions including rural banks and non-financial entities in the country. Currently the ARB Apex Bank have also been established to regulate the activities of the Rural and the Communities Banks in the countries (Bob-Miller, 2007).

2.5 Form of internet banking activities

The emergence of the IT into the operations of the banking sector has brought a substantial increases in the customer base, transaction costs reduction, the quality and timeliness of responses improvement, enhancement in the opportunities for advertisement and branding and then increases in the self- service, service customization, customer communication and relationship (Garau, 2002).

As noted by Abor, (2004), the major recognized electronic banking activities come in the form of SMS banking, mobile banking (m-banking), ATMs, telephone banking, personal computer banking and electronic cheque clearing systems.

2.5.1 Mail Banking

According to Chovanová (2006) mail banking is another kind of internet banking activity that provides the customers the chance to interact with their bankers through the use of the

electronic mail. According to the author, the regular usage of mail banking is to assist the customers in the way of receiving their account reports from their bankers.

2.5.2 Mobile/Telephone banking

As opined by Chovanová (2006), the telephone banking is the act of providing banking activities to customers through the use of a standard telephone line. A customer of a financial institution is able to receive the requisite information from their bankers through dialing a specified telephone number. Since the introduction of the mobile banking, customers of the various banks have been able to utilize to achieve peculiar services 24 hours a day without necessarily visiting premises of the banks in persons to transact.

In Ghana, currently there are in existence six mobile telecommunication companies MTN, TIGO, Vodafone, Airtel, Expresso and Glo in a fierce competition. These mobile companies are experiencing rapid growth and are in turn supporting the country's economy. While Akpan (2009) argued that mobile banking (M-banking) as an application of mobile commerce helps the customers to undertake a conveniently and virtual banking activities at any place any time, Medhi et al (2009) believed that the foundation of M-banking have ushered in banking innovation which has resulted in the increase level of customer satisfaction, cost management, increase in profits and then a positive transformation in the payment systems of the economy.

2.5.3 Short Message Service (SMS) Banking

According to Tiwari & Buse (2007), SMS Banking is the delivery of banking and financial services from the stock market transactions, bank accounts administration and accessing personalized information through telecoms devices. The increase in the usage of wireless services has assisted the financial institutions in the provision of services at any place and time (Birch, 1999). The Short Message Services (SMS) are being utilised in supporting the mobile banking service delivery as the main channel of interaction. According to Venkatesh et al,

(2003) mobile and the SMS service delivery within the banking industry brings about time saving, varying location and convenience, quick and easy navigation for customers to familiarize themselves with the mobile banking activities.

2.5.4 Point-of-Sale Transfer Terminals (POS)

This type of customer service helps the customers to undertake retail purchases with the assistance of check card. This card even though seems similar to the credit card does not however work similar to it. The purchased amount is immediately transferred from the the debit card account holder to that of the account of the store (Malak, 2007).

2.4.5 PC Banking

The personal computer banking is another kind of internet banking through which any permitted persons have the ability to access and achieve banking services from the banks through the use of a connected PC to the network of the banks (Easingwood & Storey, 1996).

2.5.6 Automated Teller Machine (ATM)

ATM has been recognized as one of the most vital devices of the internet banking infrastructure. ATM is a terminal installed by a bank to assist customers to withdraw cash, make balance enquiries, order bank statements, transfer and deposit funds. ATMs are fundamentally self-serviced banking terminals and are geared at the provision of fast and convenient services to the customers of banks (Rasiah, 2010). ATM banking could also be said to be an electronic terminal which offers the customers of the banks the provision in obtaining a service from the bank without any limit to time or place. This form of banking makes it possible for individuals

or entities the abilities to deposit, withdraw or transact any form of operations with the bank with the support of an ATM card and a Personal Identification Number (PIN).

According to Rose (1999), ATMs is able to combine a computer terminal, a system of record-keeping and a cash vault in one compartment to allow clients to transact banking operations with a plastic card bearing a Personal Identification Number (PIN) or by pressing a unique code number into the terminal of a computer connected to the computerized records system of the bank's which is operational 24 hours a day.

With the inception of the services of ATM, financial institutions have been able to offer convenient services to their customers without any limit to time or place as the ATM placed outside the banking hall allow the customers to have access to their account at any period of time. These terminals are usually placed closer or outside the banking premises and other places including shopping malls, restaurants, and airports or at any selected places. Usually the ATM is designed and developed to facilitate some of the most essential activities of banks. Thus the inceptions of the ATMs have been able to overcome and eliminate the limitations associated with time and geographic location in banking transaction (Hazlina et al, 2011).

2.6 The effect of Internet banking activities on the banking sector in Ghana

The concept of Internet banking is currently gaining acceptance and usage within the most of the citizens in the country. The internet banking is gaining this popularity as a result of the associated benefits that offer to the customers of the banking sectors. Internet banking come along with varied form of importance to various customers of banks. It must be stated however that, in all situations, customers use the services for the supposed or the actual advantages to be derived for the internet banking services. According to Karjaluoto *et al.* (2002), the introduction of the online banking service have brought about reduction in bank branches, staff employed to work in banks and also the time spent by customers in accessing transactions. It

has again increased the satisfaction level of the customers as it has been able to reduce their time and effort spent in accessing their account and transacting businesses with the banks.

A study by Hernando et al. (2006) and then DeYoung et al. (2007) have revealed that, the utilization of a web site in the operational services of banks have resulted in a positive effect on the profit of the banks as compared to banks without this facility. According to Onay, et al (2008), the contributions of internet banking to the profit of banks in Turkey from the 1995-2005 indicated that internet banking was able to increase the ROE of banks with a time lag of two years. This study while corroborating the study of Hernando et al. (2006), however indicated a negative effect observed as one year lagged dummy.

Contrarily to the above findings, Malhotra and Singh (2009) in their study of the internet banking contribution to the performance and the risk tracing experience of commercial banks in Indian in June 2007 revealed that the profitability and the contributions of internet banking do not have any significant impacts confirming the findings of DeYoung (2005) and Arnaboldi and Claeys (2010). Again, the study of Mohammad and Saad (2011) on the impact of internet banking to output of Jordanian banks from 2000- 2010 using OLS regression revealed that internet banking brings about a significant negative effect on the performance of banks. This study thus confirmed the findings of previous studies by Delgado et al (2007) and Siam (2006) who also discovered that internet banking has a significant negative impact on the performance of banks.

A study by Onay et al (2008) on Turkish banks however concluded that internet banking has a positive impact on the profits of banks. According to the study, the inception of internet in banking has changed the competition of the retail banking sector fundamentals. Again, the concept has made it possible for the developing countries in putting up their infrastructure of financial intermediation. The study concluded that internet banking factors have had strong impact on the Turkey banking system performance. An earlier study of Siam (2006) discovered

that there is more positive impact derived from internet banking than just to satisfy and fulfill the need of the customers. The study added that effort must be implemented in order to bring about a well-articulated strategy so as to be able to derive maximum success and profits from the adoption of the service.

A study by De Young et al (2007) on the impact of internet banking on the US community banks' markets performance comparing the output of virtual click and mortar banks with brick and mortar banks concluded that internet banking is able to improve and increase the profit margins of banks.

2.7 Essential factors necessary for successful adoption of Internet Banking

According to Salehi (2013) banks which are reluctant to adopt internet banking would face reduction of its customers and thus it would be essential for them to adopt this technology. According to Shah *et al.* (2005), critical factors (CSF) for successful internet banking include the understanding of senior management about these factors as it would potentially help them in improving their planning process strategically. These factors among others includes userfriendly website, systems security, support from top management, fast responsive customer service, quick delivery of services, promotion of electronic commerce within organization, and all time availability of the services.

According to Young (2006), the rich and the elite groups within the society readily accepts changes and therefore could accept internet banking more easily as compared to the less educated. This usually happens as the rich and the elite perceive the usage of internet banking as a prestige among their peers and a sense of social scene in today's technological advancement. Again as concluded in the study of Al-Somali, et al (2008), education and trust are able to influence the attitude of the customers towards the usage of internet banking.

According to Daghfous and Toufaily (2007) the organizational, structural and strategic factors of a bank has the ability to accelerate or slow down the adoption rate of internet banking distribution mechanism of a bank. These organizational and structure features which include the variable such as bank size, technical staff, technical infrastructure, the perceived risks, decision makers' international experience and mastery of innovation are essential factors that can help achieve a higher adoption rate or otherwise. Thus, the levels of the bank's internal technological environment are very influential in the achieving higher adoption rate of internet banking. It must also be emphasized that the level of internet penetration within the society has also actual impact on the success of internet banking adoption by customers of financial institutions.

Another critical factor that might inhibit the success of internet banking is security due to the fact that hacking and fraud (Kaynak and Harcar, 2005) have been one major concern to the cyber environment. According to Altintas and Gürsakal, (2007), trust and security are therefore very vital in ensuring fundamentally a positive view of the internet banking service delivery. This perceived risk in terms of fraud and security as confirmed by Bauer & Hein (2006) are factors that militate against the success of internet banking. Another study by Chiemeké, et al (2006) on the possibility of Internet banking adoption revealed that security and inadequate operational infrastructural facilities in the form of telecom devices and power supply are among barriers to successful internet banking adoption. 1

2.8 The internet banking activities of ADB

ADB in the year 2011 ushered in and has since that period made remarkable progress and improvement in that sector. Currently, ADB have added mobile banking that have permitted its customers to subscribe and access various forms of service among which are the following:

1. Balance enquiry

2. Funds transfer
3. Airtime
4. Bill pay
5. Forex rates
6. Cheque services

ADB through its mobile banking accessibility permits its various categories of customers in accessing the banking operations using mobile browser and others form of electronic devices all geared towards the provision of a fast and convenient service. As reported in the ADB Newsletter ,(2016) with the caption ‘_adb discovery‘ , the introduction of the internet banking was undertaken as strategic business approach in a bid to increase the customers base of the bank and the changing marketing trends within the banking sector. The main objective of the introduction was to help reduce the turnaround time of customers thereby relieving the banking premise of congestion. The adoption of the internet banking has helped ADB in communicating important information to its customers across the country devoid of any limitation. This communication has been effective and it is usually deployed whenever the Bank intended to undertake any maintenance practice is experiencing any technical challenges with it operations. Thus messages are sent to the customers in order to reduce if not avoid the inconvenience associated with operational challenges of banks. The introduction of the internet banking by ADB which was its burning desire in possessing the state of the art technology in its operations has therefore become the main modus operandi of the management of ADB.

2.9 The concept of customer satisfaction

The quest for profit is one of the major driving forces for any entity in the business environment. However, one essential component that militates against profit maximization of an organization

is their ability to retain a loyal customer as the customers are quite often driven by their perception about satisfaction.

Customer satisfaction is the perception that is being held by persons based on the expectation they wish to derive from the service delivery and performance from the organisation concerned. Satisfying the emotions of the customers is therefore fundamental in generating customer satisfaction. According to Chin (2010), the measurement of the satisfaction of the customers provides an optimum indication of the future output of the organisation. Customers expect assurance from the suppliers that customers' usage of the companies' products and service would not bring about any threats to customers' existence or would not be affected no matter whatever happens to the company or the market.

According to Jani and Heesup, (2011), customer satisfaction could be said to be the emotional position as a result of the interaction of the customers over a period of time with the service provider. Verma, (2012) also explained the customer satisfaction as an effect of the purchase and usage of the product and the services emanating from the comparison of the customers' rewards and the costs associated with the acquisition in relation to the expected results.

According to Mosahab et al. (2010), the customer satisfaction could be considered as effective approach and competitive tool in enhancing the service quality of any company due to the fact that the development and the sustenance of every organisation depend on the extent of the customer satisfaction. Thus as opined by Lin and Wang, (2006), the satisfaction of the customer is very essential in the achievement of a competitive advantages. Customer satisfaction is therefore the objective of companies as it is able to bring to the companies a long term benefits. The researcher therefore considers that it is essential for companies to treat both their internal and external contacts as customers who deserved to be treated with utmost care and respect.

This is because customers are happy whenever they are treated well and with care as they think they deserved it after the payment. Even though it is a daunting task for the financial industry in providing outstanding customer services to every customer, it is however imperative if companies desire to remain competitive and profitable in the business environment.

Management of the various institutions should therefore endeavor to comprehend the features such as the reliability of the bank, bank guarantees, and the physical facilities and inculcate these in their business strategies as these features have the potentials in attracting and retaining customers. By they will be able to effectively manage and influence the assessment and belief of the customer presentations (Toelle, 2006).

2.10 Evaluating the level of the customer satisfaction

According to Siddiqi, (2011), customer satisfaction is highly seen as the essence of success in a competitive financial sector. The expectation and the experience of the customer after the purchased products utilization in relation to the purchased product or service is one of the non-financial indicators that is very essential in evaluating the extent of the customer satisfaction (Bendle, et al, 2010). As confirmed by Kim, et al, (2012) customer satisfaction is after purchased attitude derived mentally from comparing a projected high quality experiences to be received from a service or a products and the actual quality level of experience received achieved after using the products or the services.

According to Alafi, (2010), the fundamental process of evaluation with the affective components includes comparison of pre-purchase predictions with the perceptions of the performance so as to create the needed attitudinal conclusion. Bendle, et al, (2010) opined that, customer satisfaction evaluation is the measurement of the total customers' expectation with the stated experience with a company or its products or service above specific satisfaction objectives. Thus, a customer is likely to experience satisfaction whenever the accrued

satisfaction derived from the products or services of the related purchase and its utilization are in harmony with the mentally held expected results before the purchased. The researcher therefore concludes that customers frequently make their value judgmental values based on their held belief of the expected performance of the services of the products as against the actual performance.

2.11 Customer satisfaction in the banking sector

According to Pringviriya et al. (2015), customer satisfaction is a vital element for the success of every organisation as it is an element that is able to decrease customer complaints which then result in an increase of customers' repurchase intentions leading to a higher probable better financial performance. Quality of service as revealed in Kotler and Keller, (2006), is rudimentary in achieving customer satisfaction.

The quality of service or the service factor is very important element in the perception of the customers within the financial sectors as confirmed in numerous studies by Hinson et.al, (2006), Fragata and Gallego, (2009), Hafeez and Muhammad, (2012), Tariq and Moussaoui, (2009), Kheng et.al, (2010), Titko and Lace, (2010), Gan et.al, (2011), Siddiqi, (2011), Monsef et al, (2012) and Mohsin et.al, (2012).

Within the service sector, studies have again revealed a significant positive relationship between the service quality and customer satisfaction that is service quality to the customers (Shah and Imam, 2015; Jamal and Anatassiadou 2007; Chen and Lee (2008), survival of companies (Al Azzam, 2015) and then enhanced corporate image (Rahman et al. 2012; Kandampully and Hu, 2007; Chattananon et al. 2007 as quoted in Sukaisih et al. 2015).

2.12 The relationship between internet banking adoption and the customer satisfaction

According to Liao and Cheung (2002) convenience is a significant quality feature in the perceived efficacy of Internet banking, which is noted to be significant in influencing the

willingness of the customers in the use of internet banking. As concluded by Chow et al, (2005) convenience has a substantial effect on the adoption of internet banking by the customers within the banking sectors in Hong Kong.

A study by Lee et al. (2005) also revealed that customers observed the element of convenience as a significant basis of their intention in adopting the service of internet banking. This finding of Lee et al. (2005) has been confirmed by Yu and Lo (2007) in their study that said that the perceived convenience substantially influences customers' actual behavior to online banking. Another empirically study by Padachi et al. (2007) confirmed that an interactive website of a bank that comes along with ease of use is a vital instrument which affects the adoption of Internet banking services adoption by customers. A previous study by Akinici et al. (2004) concluded that a website which is user-friendly is deemed as one of the major elements that are able to influence consumers' internet banking services selection and adoption.

Studies have concluded that Customers might not quickly move into adoption of internet service as a result of the absence of understanding the aspect of internet (Corritore, et al 2003) and must be assured that internet banking is a secure medium of transaction (Mattila & Mattila, 2005).

According to Gerrard, et al (2006) customers who are yet to experience online purchased of a products or service are more in tune in their continuation of the traditional means of accessing banking services. It must be stated that in terms of internet banking usage, customers are not the same in terms of skill in the technology usage (Kim, et al, 2005) and therefore effort must be made to assist customers in the usage of internet banking application. This is essential due to the fact that customers without or with little internet skills may be reluctant to accept the benefits of internet banking.

A study conducted by Agboola (2006) found out that internet banking usage has the ability to broaden the customer relationship and loyalty retention thereby helping banks to gain

competitive advantage on the market. Karjuoto et al. (2002) and then Jaruwachirathankul & Fink (2005) concluded that basic computer and personal banking experience significantly positively affect consumers' attitude and behaviour towards online banking and that it is essential for banks to provide a well-designed and user-friendly website to attract potential adopters' attention.

2.13 The effect of internet service on the customer satisfaction

The introduction of technology has ushered in transformation globally in the activities of banks from the traditional branch banking to a modern banking with the aid of technologies including ATMs, e-utilities payments, and e-loan applications among others. The advancement of the technology has brought about transformation in the financial sector. The technology has changed the service delivery medium in the retail banking resulting in better market performance (Sarokolaei et al. 2012; King, 2012; Amadeh et al, 2009; Avasthi and Sharma, 2001). According to Jalan (2003), the information technology revolution has resulted in essential changes and development in the financial sector. The study revealed that perhaps there has been no sector than the banking sector that has witnessed this astronomical changes effect with regards to advancement in technology. The technology has been influential elements in intensifying the competition and the quick proliferation of innovations in the financial sector. The banking services delivery has therefore changed from the usual traditional branch banking to the internet banking services delivery. A study by Parasuraman et al. (1985) revealed some major basic components required in order to deliver the required reliable service to the customers. The study revealed that the service must be reliable in terms of delivering the promised service dependably and accurately to the customers. The second key requirement which is responsiveness means the willingness in helping customers in the provision of services promptly. The third component defined as assurance is the knowledge and the courtesy of the staff and their ability in conveying confidence and trust. The fourth element identified as

empathy is the provision of caring and personalized attention to the customers. The last variable revealed as the tangibility is defined as the appearance of the physical facilities, equipment, personnel, and the communication materials being used by the organization in the service delivery.

2.14 Challenges of internet banking adoption by customers

According to Gerrard et al. (2006) in a study relating to the challenges of internet banking services adoption by customers in Singapore revealed that associated cyber risk is one of the factors affecting customers. In the study, the respondents who said they were not using the internet banking service had a negative outlook of security about it as they perceive the internet banking to be associated with too many security breaches and threat. Their perception was based on their financial and privacy information being breach or in jeopardy. According to Gardachew (2010), internet banking adoption challenges also includes lack of suitable legal and regulatory frame works for electronic payment systems, political instability in neighboring countries, high rates of illiteracy and absence of common financial system platform for operation.

The issue of security on the cyber environment has been very alarming to the extent that many people including most Ghanaians do not trust the level of cyber-security for them to access the internet banking platform. The increasing number of cyber-attacks brings to the fore the insecurity that customers feel about the operations of internet banking. Again, the frequent slowdown of the response time and the delay of service delivery of service create bad impression about internet banking in the minds of the customers (Jun & Cai, 2001). A study by Laforet & Li (2005) revealed substantial security variations between customers of online banking and non-online banking customers. The study concluded that the perception that the non-online users have about hackers and fraud are vital elements for their rejection of internet banking which thus confirmed the study of Kaynak and Harcar (2005) which said that

cybercrime is a threat to internet banking adoption. Hackers and fraud actions or computer crimes (Altintas and Gürsakal, 2007) are the means of dishonestly stealing funds, identities electronically or attacking computers to compromise their services delivery (Madu, 2002). The adoption of internet banking in Nigeria according to Chiemeké et al. (2006) faces the same major obstacles of insecurity and inadequate operational facilities.



CHAPTER THREE

METHODOLOGY

3.0 INTRODUCTION

This chapter comprises the research design, the population, the sample size and the sampling technique, the data sources and the data collection process, the data analysis, the ethical, the reliability and the validity issues and then the profile of the Agricultural Development Bank (ADB).

3.1 THE RESEARCH DESIGN

According to Agyedu, et al (2011), research design could be said to be the total plan which is utilised by the researcher in obtaining the requisite answers to the research questions set at the beginning of the study. The research design could be in the form of evaluation, descriptive study, assessment, experimental study or a historical study. In a study by Leedy and Ormrod, (2001), the author discovered that research design could be in the form of a grounded theory, ethnography, a case study, content analysis, and phenomenological research. It must however be emphasized that the adoption of a particular researcher design by a researcher usually is based on the specific study under consideration as research design as opined by Creswell (2003) is supposed to address a particular or different needs at a particular period of time.

The current study adopted the descriptive research approach. Descriptive research has become the most widely used research method. According to Agyedu et al (2011), this type of research describes —what is|. It involves describing, recording, analyzing and interpreting conditions as they exist. Thus descriptive research involves collecting data in order to test hypotheses or answer research questions concerning the current status of the subject of the study. It may also

involve some type of comparison or contrast and attempts to discover relationship between existing variables.

In a descriptive study data typically collected through questionnaires survey (personally delivered or mailed), an interview (face-to-face or by telephone), or observation, using instrument developed for the study. Problems of descriptive research include lack of response (failure of subjects to return questionnaires or attend scheduled interviews) and lack of objectivity on the part of some of the subjects.

The researcher therefore selected a descriptive survey approach so that a quantitative data could be collected to help answer the research questions pertaining to customers' satisfaction in the internet banking adoption within the banking sector in Ghana with four branches of ADB in the Brong Ahafo Region as a focal point of study.

3.2 POPULATION

A targeted population for a study comprises a group of persons, objects or entities that defines the aims of the study (Patton, 2002). According to Agyedu et al (2011), population of a research work is said to be the overall element of persons, objects or events that possess an identifiable or common features by which the research is keen in studying. A population of a research work constitutes the said target and thus it must be identifiable and well defined.

Within this study, the estimated seventy thousand (70,000) staffs and customers of ADB in the Brong Ahafo Region of the Republic of Ghana constitutes the targeted population.

However, the selected branches of the Bank within the Region for the study are the Sunyani Main, Dormaaa Ahenkro, Techiman and Berekum branches.

3.3 SAMPLE SIZE

A sample size according to Agyedu et al (2011), is a subset of the study population which comprises the individuals, the objects or events with an identifiable or common features. Sample size could also be said to be the fundamental questions or description of how small or large the sample must possess in order to be fully representative (Sarandakos, 2006). A representative sample in sampling must exhibit features that are in semblance to the targeted population of the study in order for it to be qualified to representation of the entire study population. The selected sample for this research work is made up of the staff and customers of the ADB in the Brong Ahafo Region of Ghana. The sample size is made up of three hundred and forty respondents, that is, three hundred (300) customers and forty (40) staff from the Sunyani Main, Dormaaa Ahenkro, Techiman and Berekum branches of the Bank.



The table 3.1 below shows the sample size for the study.

Branch	Number of respondents	
	Staff	Customers
Sunyani Main	10	75
Dormaa Ahenkro	10	75
Techiman	10	75
Berekum	10	75
Total	40	300

Source: Fieldwork, May 2017

3.4 THE SAMPLING TECHNIQUES

Sampling is said to be the technique for selecting a sample out of a complete entity or a particular quantity of people or things from the wider population. This study data collection was embarked upon through the selection of the part that is three hundred and forty staff and customers from the estimated seventy thousand population customers and staff of ADB in the Brong Ahafo Region of Ghana.

Sampling techniques comprising probability and non-probability are commonly used in choosing respondents for the collection of data. For the probability sampling, each of the supposed respondents has the equal ability within the designated sample size to be selected. The simple random, the stratified, the systematic and the cluster samplings form the fundamental type of probability sampling technique. The non-probability sampling, however, does not come along with the equal opportunity for the selected unit or respondents to be taken or considered. This means that within the non-probability sampling, the respondents do not possess the equal chance of selection to represent the sample size. The non-probability sampling is made up of the quota, the accidental, the purposive samplings convenience and the judgemental.

The researcher utilised the purposive and the convenient non-probability sampling approaches in selecting the customers and the staff respectively for this research work. This approach was necessary due to the fact that the targeted customers and the staff of the Bank could easily be approached by these kinds of sampling techniques. These selected sampling approaches are also necessary as data on the effect of internet banking adoption and the customers' satisfaction could easily be collected from the staff and the customers who work and patronize the banks transaction respectively on daily occasions. The researcher must also add that the willingness of the selected respondents was considered during the data collection exercise as some of the respondents were reluctant to partake in the data collection. The researcher therefore chose these sampling techniques so that accurate findings for the study could be derived.

3. DATA COLLECTION

During the course of the data collection exercise, the researcher took time in explaining briefly the objectives of the study to the respondents in order to earn their full participation and responses. Again the selected participants for the study were assured of their confidentiality and privacy on any information provided. This was done in order to elicit their candid opinions and experiences. It must be stated that, most of the questionnaires especially those administered to the customers were completed on the same day it was given out. The questionnaires for the staff of the Bank, however, was completed and given back to the researcher a week later. In a whole the researcher used three weeks to complete the administration of the research instruments.

3.5 SOURCES OF DATA

Sources of data for a research study are made up of primary and secondary data. These sources of data are the fundamental data for any research study

3.5.1 Primary Data

The primary source of data could be said to be the main or the actual raw data which are collected from the chosen respondents via data collection instrument bearing the views and experiences of respondents (deVaus, 2002). Malhotrs and Birks (2007) added up to this by stating that the primary sources of data is the data originated on a subject for particular purpose by the researcher in order to find answers to the research questions.

Questionnaire forms the basis of the primary data as the main sources of data for this study. The focus on the primary data was demographic data of the respondent, the factors influencing their adoption of internet banking, the satisfaction level and the challenges they encounter in the use of Internet banking services.

Questionnaire as a data collection tool demands from the respondent responses in a predetermined order from a same set of questions. According to Agyedu et al (2011), a questionnaire is a written data collection tool which consists of series of statements or items used in an effort to collect data on a specific issue under consideration. The utilization of questionnaires for the data collection assist respondents to make their input out of a given option.

This study questionnaire was systematically structured in a way to ensure that the valid data that could help answer the researcher questions or otherwise in the study was carried out by the researcher. The researcher used questionnaire within this study with the intention that it usage will help the respondent to answer the same kind of questions based on their experiences and opinions in an effective and an efficient means.

3.5.2 Secondary Data

Secondary data sources could be explained as an existing data which is relevant to and very useful to the issue under consideration. This type of data could be data which has already been collected in a previous work and of which its usage in the current study could be very useful.

This type of data may come along as a raw or published summaries by means of soft or hand copies (Bulmer et al., 2009). Secondary data are also found in the form of reports, books, journals, articles, dissertations and government publications. Due to the fact most organisation these days store vast amount of data electronically, secondary data for this study was taken from the ADB newspaper publication on the report of their customers' usage of internet banking. This was analysed in support of the primary data collected for the study.

3.7 DATA ANALYSIS

The data which was collected by the researcher were edited to remove inconsistencies and then coded before being analyzed. The researcher must say that there were existence of inconsistencies in some of the responses provided by the customer regarding their marital status, age, and then educational background. The Statistical Package for Service Solution (SPSS) and the Microsoft Excel were used for the coding for the generation of the vivid description in the form of tables, figures and charts for interpretation, discussion and conclusion of the study.

3.8 RELIABILITY AND VALIDITY OF DATA

According to Saunders et al (2009), validity and reliability of a responses provided by the respondents usually depend to some extent, the nature of the design of the question items on the questionnaire as a well-structured questionnaire usually elicit a valid and reliable responses from the respondents. As opined by Polit and Beck (2006) and then Gillis & Jackson (2002), validity is explained as whether the supposed data instruments measures what is intended to measure in a study. It is based upon this that Langford (2001), say that the data instrument must be dependable and consistent in providing the right information. Reliability, according to Polit & Beck (2006) is a means of testing the accuracy of a measuring data collection tool. Again reliability, as opined by Brink (2000), De Vos (2006), Parahoo (2006) and Gillis & Jackson

(2002), is a process of ensuring that the measuring instrument is able to repeat the same findings under analogous circumstances if taken again by the same researcher or utilised by two different researchers.

In ensuring the standards of the data collection instrument, Cooper and Schindler (2001) concluded that it is permissible for a researcher to use a panel of experts or self-evaluation in measuring the validity or reliability of the instruments. It must be emphasised that, this study adopted the guidance of expert and some existing scholarly work in the evaluation of the standard for the data collection instrument. Again, relevant alternative statements were taken into consideration in order to address the validity and reliability pertaining to the data instrument on the internet banking adoption by customers.

3.9 ETHICAL ISSUES

Ethical issues were considered and incorporated into the data collection exercises. The researcher sought the approval of the respondents for their participation in the exercises and strict observance of confidentiality, integrity, objectivity and privacy strongly adhered during and after the exercise. The assurance of confidentiality and observance of respondents' privacy by the researcher made them to fully participate in the data collection exercise. Again the researcher observed all ethical standards as outline in the KNUST Graduate School in relation research studies. These were carried out in order to enhance ethical standard for this research work.

3.10 PROFILE OF THE AGRICULTURAL DEVELOPMENT BANK (ADB)

3.10.1 The Background of ADB

ADB is a state-owned commercial financial and development oriented institution in Ghana. ADB, a household name in Ghana is noted to be the development oriented bank established by the Government of Ghana under the Act 286 in 1965 as Agricultural Credit and Cooperative Bank with a special interest in Agric Credit. The Bank is licensed by the Central Bank (BOG,11).

In 1967, the National Liberation Council decree (182) changed the Bank's name to Agricultural Development Bank in order to grant its full commercial autonomy. In 1970, ADB had a full banking license under the Banking Act (Act 673) and then a universal banking license under Banking Act 2004 (Act 673). The Banking Act 2004 gave the ADB permission to widen its services and to help address the financial needs of the agricultural sector in the country.

According to the ADB annual report of 2015, the Bank as of April 2010, was the leader with 35% of the overall banking sector financing of agriculture in Ghana. The Bank was awarded the 'Bank of the Year' at the Africa Investor Agribusiness Awards, in Durban, South Africa in September 2010. By the end of the year 2011, the total assets of ADB stood at approximately US\$683.6 million (GHS1.21 billion). ADB is currently listed on the Ghana Stock Exchange.

ADB has continued to be fearless, energetic and enterprising in the pursuance of activities on the market in order to remain competitive in the satisfaction of its customers and also to sustain its growth. The Bank is accountable, responsible, and answerable to its customers, partners, leaders, and other employees as well as external stakeholders. ADB is able to provide its customers with an efficient, productive, and enjoyable banking experience in all times. The Bank has been able to create conducive environment which support its staff in the

generation of innovative ideas and its practical implementation for new products, process and solutions.

Again ADB through its effective and dedicated teams of staff have been able to build complimentary competencies with the ability of holding themselves mutually accountable, with efficient communication which daily challenge each of the staff in the achievement of excellence service.

3.10.2 Products and Services

The products and services of ADB aside the provision of agricultural loans include Development Banking, Corporate Banking, Personal Banking, International Banking, Diaspora Banking Services, Treasury Management Services and the Money Transfer Services in partnership with the Western Union.

3.10.3 Branch Network

ADB currently has a branch network of fifty (50) branches spread across the length and breadth of Ghana. Again there are in existence additional four Farm Loan Offices and ten Agency Offices bringing the number to a total of sixty-four (64) service outlets, in addition to the bank's headquarters in Accra, Ghana's capital.

3.10.5 Awards

In the year 2015, the Bank due to its exceptional services received the following categories of awards:

1. Ghana Banking Awards 2015 – Best Bank Agric Financing
2. Ghana Banking Awards 2015 – 1st Runner Up Product Innovation

3. Next Consulting Limited 2015 - Best Customer Service Bank 2015
4. Other Ways Management and Consulting Club, France - The 2015 Golden Award
Quality and Business Prestige

3.10.6 Corporate Responsibility

ADB social responsibility is based on its responsiveness to its customers who are spread through the country. The social responsibility of the Bank makes it possible in contributing its quota a worthy cause in order not only to build its corporate image but also to give part of its returned earnings to those who assisted the Bank to be at its current position in the banking sector. ADB therefore feels proud in the promotion and contribution of community empowerment and growth.

Based on the ground of winning the coveted Ghana Banking Award's Most Socially Responsible Bank twice on the trot, ADB feel the needs to continue in the strive to maintain unique selling space on the competitive marketing environment in the country. Thus the social responsibility agenda of the Bank is to create competition in the minds of the customers for mutual benefits. Therefore, ADB continuous support in the provision of the many social projects also helps it in the creation of customer loyalty which ultimately assists it in the continuation of helping the less privileged in the society. ADB by this is contributing to a worthy cause and adhering to unique ethical values.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND DISCUSSION

4.0 INTRODUCTION

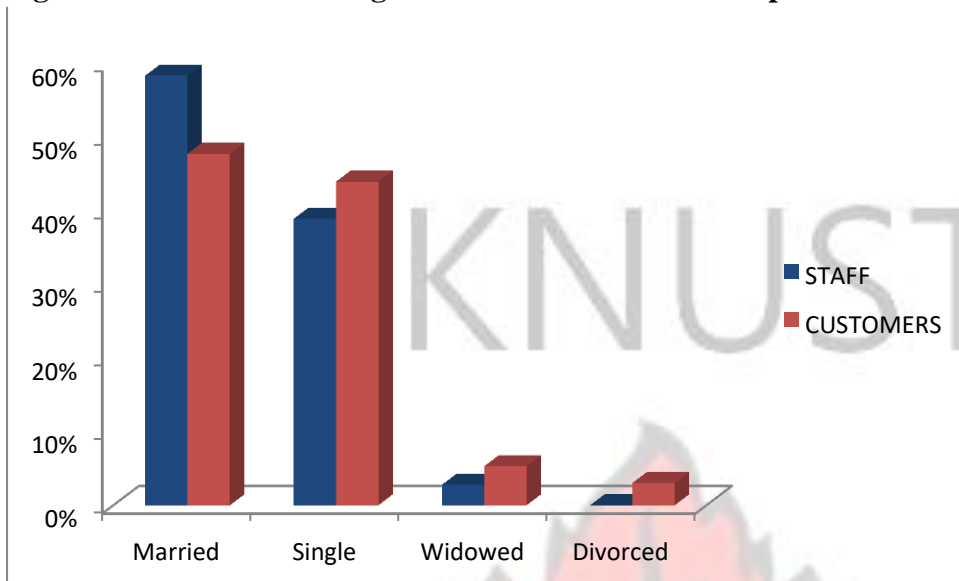
The chapter four of this work takes a look at the presentation, analysis and discussion based on the data collected from the respondents. The analysis of the data collected would be done using tables, graphs and descriptive statistics.

4.1 THE BACKGROUND INFORMATION OF THE RESPONDENTS

The researcher undertook the data collection from the selected respondents involving three hundred customers and forty staff of the Sunyani, Techiman, Berekum and the Dormaa Ahenkro branches of the ADB in the Brong Ahafo Region of the Republic of Ghana. The respondents involve 91% customers and 9% staff. The researcher was however able to collect completed and accurate questionnaires of 296 (98%) from the customers and 39 (95%) from the staff of the Bank respectively. In all, the researcher collated 335 completed and valid questionnaires representing 98% from the respondents. This information is necessary as noted by Proctor (2000), demographic data provides important basic information about the respondents. The basic information about the respondents included their gender, age, sex, marital status, educational levels among others. These basic data about the respondents are essential as it gives credibility about the data which was collected as it indicated whether the respondents are qualified to answer the research questions or not.

4.1.1 Marital Status of Respondents

Figure 4.1: A chart showing the marital status of the respondents

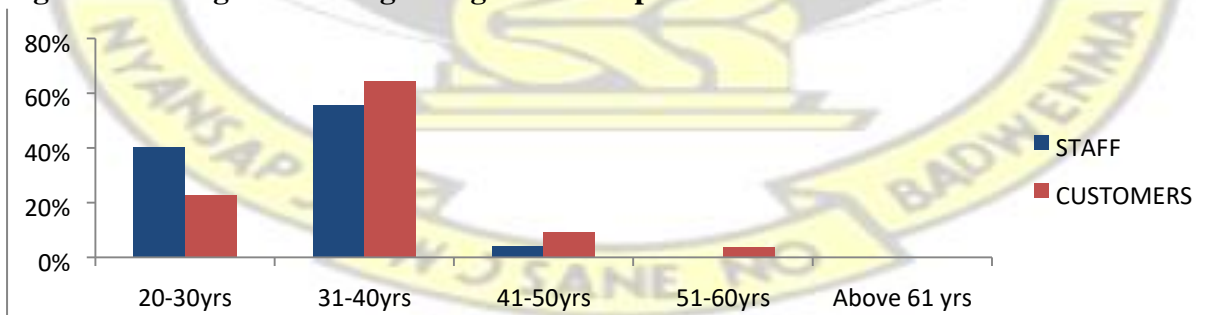


Source: Fieldwork, July 2017

From the figure 4.1 above on the marital status of the respondents, the data collected shows that the staff and the customers who were married were 58% and 48% respectively. The data again indicates that 38% and 44% of the staff and the customers respectively are single. While 3% of the staff and the 5% of the customers are noted to be widowed, only 1% of the staff is reported to have divorced and 3% of the customers said to be divorcees.

4.1.2 The Age of the Respondents

Figure 4.2: A figure showing the age of the respondents

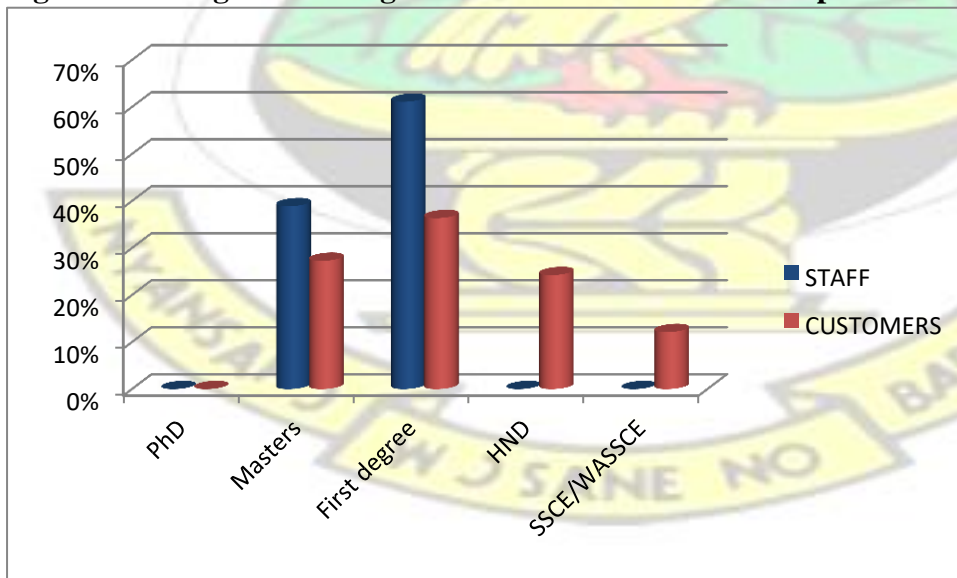


Source: Fieldwork, July 2017

The figure 4.2 above indicates the age of the respondents. In this, 40% of the staff and 22% of the customers reported to be within the age range of 20-30 years respectively. On the age range of 31 to 40, 56% of the staff and 64% of the customers respectively reported to be within that age bracket. The chart again shows that 4% of the staff and 8% of the customers respectively reported of being within the age range of 41-50 years. Even though, from the data gathered, none of the staffs reported of being 51 years and above, 3% of the customers said that they were within the age range of 51-60 but none of them was above 61 years old. The result of this study indicates that the working force of ADB is based on active working productive age ranges with more years before retirement. The implication of this result again is that ADB is associated with new generation of workers perceived to be within the generation of workforce with knowledge in the usage of information technology.

4.1.3 The Educational Level of the Respondents

Figure 4.3: A figure showing the educational level of the respondents

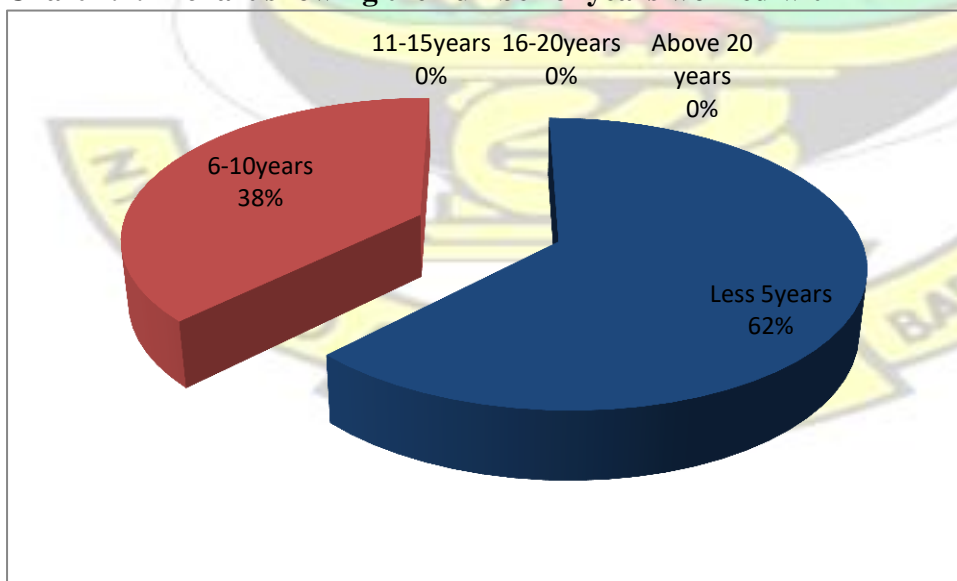


Source: Fieldwork, July 2017

The figure 4.3 above shows the educational level of the respondents who took part in the data collection exercise. The chart shows that while none of the employees reported of having SSSCE/WASSCE or HND as a basis of employment, the customers said to be having 10% and 22% SSSCE/WASSCE or HND qualification respectively. Again the data gathered as presented in the chart above shows that 60% of the employees and 44% of customers respectively are having their first degree qualifications. The chart 4.3 also shows that while 38% of the staff and 26% of the customers respectively reported to have attained masters' degree qualifications. It must however be added that none of the respondents was said to have acquired PHD degree qualification. The presentation of this data indicates that the respondents are noted to have acquired some level of education which made them capable of answering questions in relation to internet banking. The educational attainment of the respondents presuppose that they are in a better position to comprehend issues related to internet banking adoption more than those without any educational background.

4.1.4 Employment Years with the ADB

Chart 4.4: A chart showing the number of years worked with ADB



Source: Fieldwork, July, 2017

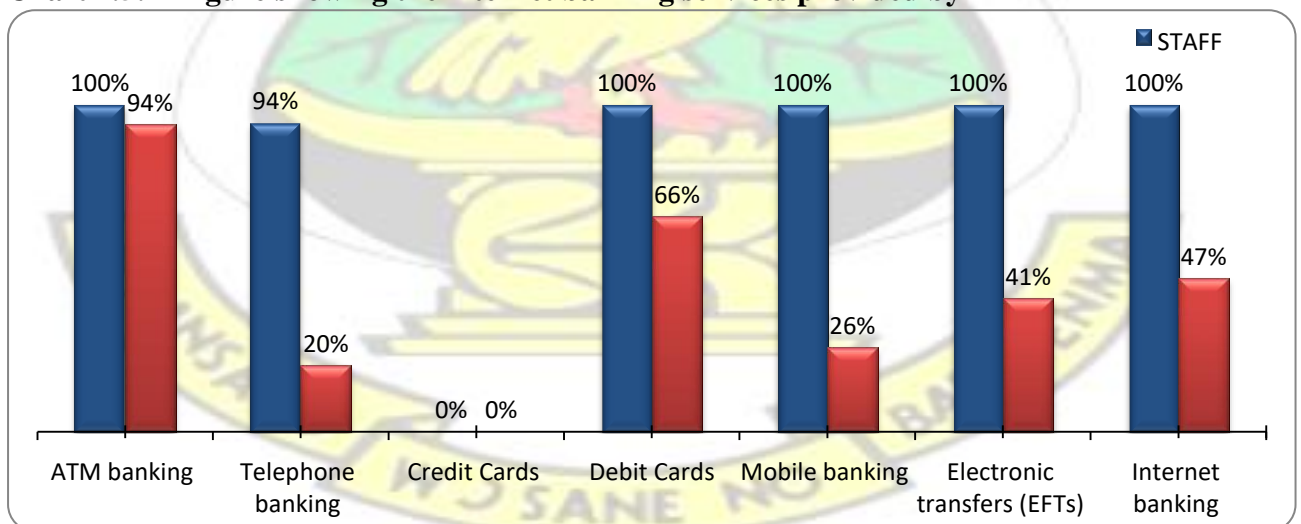
The chart 4.4 above shows the employees' number of years deemed to have worked with the ADB. The data presented above shows that none of the staff reported to have worked with the Bank from 11 years and above. However, 38% of the respondents are said to have worked with ADB between 6-10 years and 62% also said they have been working as staffs of the Bank up to 5 years. The implication of the results is an indication of the rebranding and growth program which was undertaken by the Bank at the beginning of 2010 which led to a lot of recruitment into the Bank's workforce.

4.2 INTERNET BANKING ACTIVITIES

This section is based on the Internet banking activities of ADB. These services being provided by the ADB include ATM, internet banking, mobile banking, telephone banking, Electronic banking, debit and credit cards.

4.2.1 Forms of Banking Services Provided by ADB

Chart 4.5: A figure showing the internet banking services provided by ADB



Source: Fieldwork, July 2017

The figure 4.5 above shows the assessment of the availability of internet banking services to both the employees and the customers of the Bank. On this, all the staff positively affirmed their awareness of ATM, telephone banking, Debit cards, Mobile banking, electronic transfer and internet banking. The staff however indicated non-existence of Credit cards to the operations of the Bank. On the same responses, the customers reported of having 94% awareness of ATM operations by the Bank. Again, while 20% said they are aware of Telephone banking, none reported of having knowledge of the existence of Credit card operation by the Bank. Also in relation to the debit cards, 66% of the customers said they are of such a facility, however only 26% of the customers affirmed their knowledge of mobile banking by ADB. The presentation of the data again shows that 41% and 47% of the customers respectively associated themselves with electronic transfer and internet banking relating to ADB. The presentation of this data indicates majority of the customers are not aware of the technological products being provided by the ADB. It thus essential for ADB' management to improve upon their awareness creation so that customers would be abreast with the services being provided by the Bank.

4.2.2 ADB Internet Banking Activities

Table 4.1: A table showing the Internet banking activities of ADB

ADB internet banking activities	Mean	STD. DEVIATION
a) Cash withdrawal	1.33	.569
g) Call credit top up	1.50	.976
b) Cash and cheque deposits	1.89	2.205
c) Balance enquiry	3.87	1.033
d) Cheque book requisition	4.33	.970
h) Funds Transfer	4.81	.390

f) Utility bills payments	4.50	.068
e) Check and print bank statement	4.85	.688

Source: Fieldwork, July 2017

The table 4.1 above shows the responses of the respondents in indicating the activities that the internet banking platform allows them to perform. On this, using descriptive statistics with the mean of 1.33 (SD 0.569), 1.50 (SD 0.976) and 1.89 (SD 2.205) on cash withdrawal, call credit top up and cash and cheque deposits respectively, the majority of the respondents are noted to have reportedly disagree on the statements of activities of Internet banking. The implication of this is that these activities are not permissible or carried out within the Bank. Again, balance enquiry, cheque book requisition, funds transfer, checking and printing bank statements, utility bills payments had mean and standard deviation of 3.87 (SD 1.03), 4.3 (SD 0.97), 4.81 (SD 0.39), 4.50 (SD 0.069), 4.85 (SD 0.69) respectively. The implication of this analysis is that the majority of the respondents generally, agree to the statements that the internet banking platform allow them to check their balances, request for new cheque books, undertake payment of utility bills and also print their statements. The data gathered indicated, that the platform does not however, allow them to undertake depositing and withdrawal of money, or any other transaction apart from the aforementioned activities. Within the activities permissible under Internet banking, the most identifiable activities as the analysis indicates is the checking and printing of bank statements and reports.

The study has found out that the respondents are aware of the presence of ATM, telephone banking, Debit cards, Mobile banking, electronic transfer and internet banking as a form of technological tools used by ADB. The staff however indicated non-existence of Credit cards to the operations of the Bank. Again the study has revealed that ADB's internet banking activities include balance enquiry, cheque book requisition, funds transfer, checking and printing of bank statements and utility bills payments. The management of the ADB, could however promotes

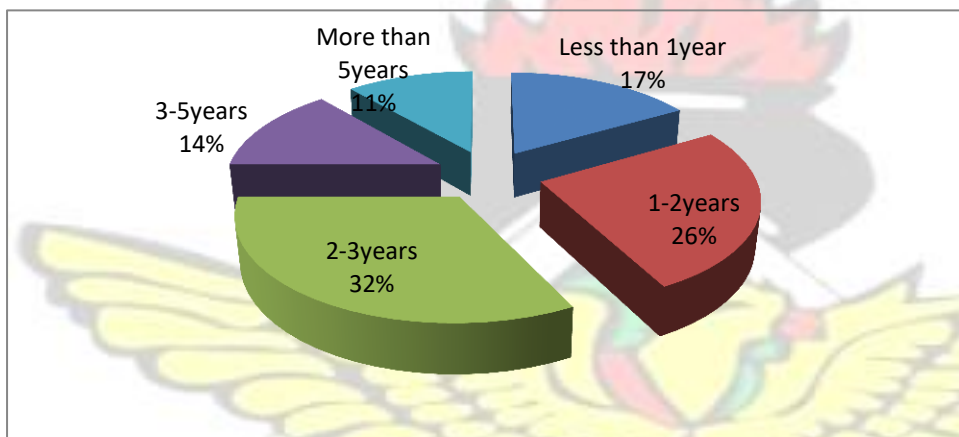
the other permissible activities to attract customers and also increase uses of the platform to include the other activities yet to be operational under internet banking of the Bank.

4.3 THE CUSTOMERS' SATISFACTION LEVEL ON ADB INTERNET BANKING

This section is based on the assessment of the satisfaction of the customers on internet banking adoption as provided by ADB. The detail analysis is presented below:

4.3.1 Length of Time in Using Internet Banking Service

Chart 4.6 Length of time in using internet banking service

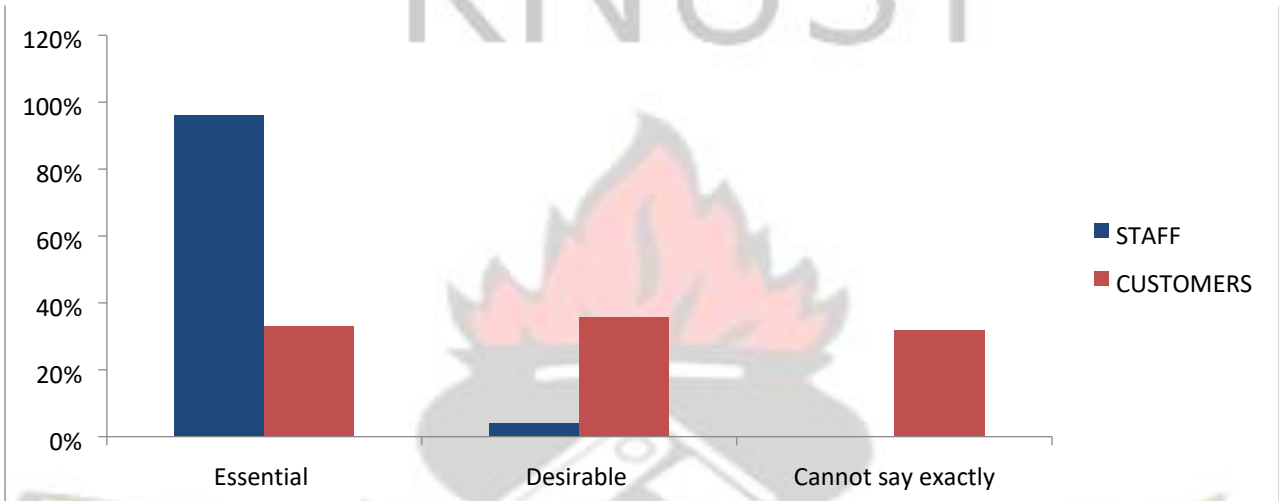


Source: Fieldwork, July 2017

The above chart 4.6 is based on the length of time that customers of the Bank have been using the platform for their banking operations. On this analysis, those who have used the service for less than 12 months were 17%, while 26% reported of using the platform between 1 to 2 years. Again, 32% and 14% respectively reported of having used the internet banking platform for a periods between 2-3 years and 3-5 years. Eleven percent of the respondents, however said to have used the platform for a period more than 5 years.

4.3.2 The Benefit of the Internet banking services as provided by ADB

Chart 4.7: A figure showing the benefit of the Internet banking services as provided by ADB



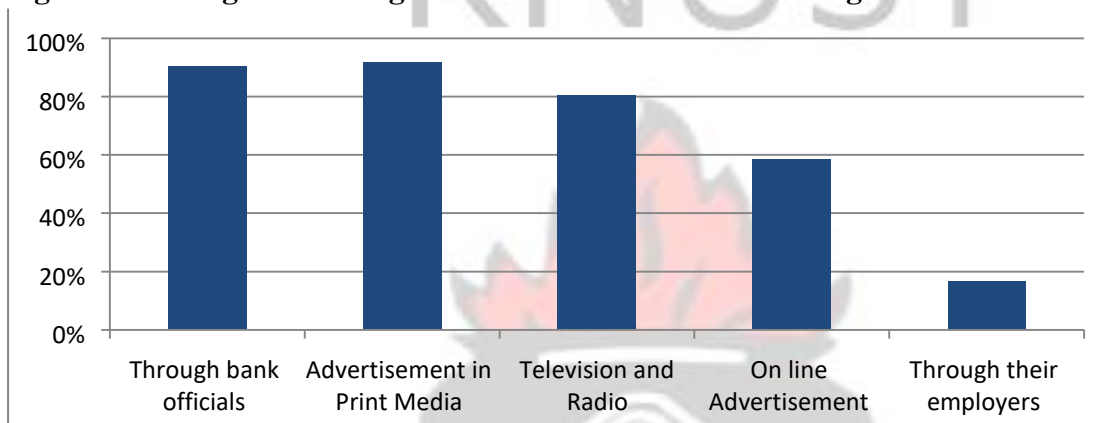
Source: Fieldwork, July 2017

The figure 4.7 above shows the perceived benefits associated with internet banking adoption as operated by the ADB. . On this the researcher determined the views of customers how they perceived internet banking adoption by ADB. From the data gathered, 90% of the staff affirmed that internet banking service is essential to the operation of the Bank. Thus, 10% think that it is only desirable to operate on Internet Banking services. On the same responses, 33% of the customers said that internet banking is essential for the operations of ADB. It must be added that, while 35% believe that the benefit of internet banking is desirable, 32% on the other hand reportedly said that, they are unsure of whether it is desirable or essential to be used by them in their interactions with the Bank. These customers could not report whether the products of internet banking were good or not. The result of this study gives an indication of the staff deep involvement on the activities of the Bank. The same cannot however be applied to the

customers whose knowledge on the relevance of internet banking adoption by ADB is limited to some extent. Management must therefore implement a policy to help curb these problems which if not unattended to could erode any gain of the Bank.

4.3.3 Advertisement of ADB's Internet Banking

Figure 4.8: A figure showing the mediums of Internet banking advertisement



Source: Fieldwork, July 2017

This Figure 4.8 is based on the channel that ADB uses to advertise its internet banking products. From the study, 90% of the respondents affirmed that they came to know the service through the Bank's officials. Again, the respondents said that 92% and 80% of the awareness are derived from print media and television/radio respectively. Also, 58% and 17% of the internet banking promotion are derived from online advertisement and the effort of employers respectively. The implication of this analysis is that the management of ADB must endeavor to do more in promoting internet banking in order to be attractive for its intended purposes.

4.3.4 The Satisfaction Level of Customers

The descriptive statistics below is based on the satisfaction level of the respondents on the internet banking adoption. The respondents were asked to indicate their level of satisfaction based on a scale ranging from 1, ‘absolutely satisfied’ to 4, ‘absolutely dissatisfied’. The analysis of the data is presented below:

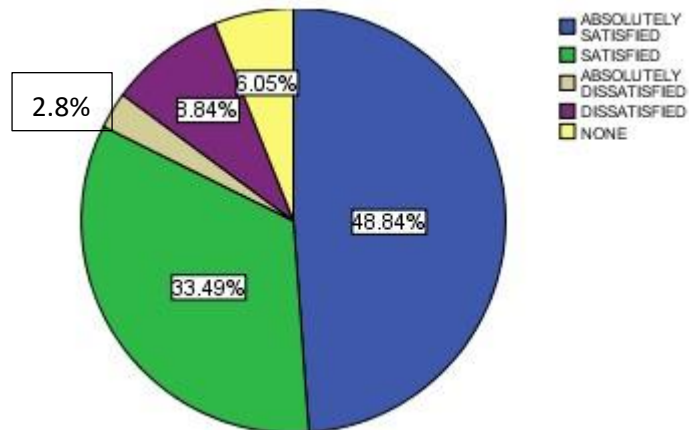
Table 4.2: A table showing a descriptive statistics of the satisfaction level of internet banking

Statements	Mean	Std. Deviation
Level of satisfaction of internet banking	1.90	1.187

Source: Fieldwork, July 2017

The above table 4.2 is a descriptive statistics conducted to assess the level of satisfaction among respondents on the internet banking adoption. As stated earlier the respondents were asked to indicate their level of satisfaction based on a scale ranging from 1- ‘absolutely satisfied’, 2- ‘satisfied’ to 3- ‘dissatisfied’, 4- ‘absolutely dissatisfied’. With the mean of 1.90 (SD 1.19), the indication is that the respondents are satisfied on the internet banking as being provided by the Bank. The standard deviation which is also close to the mean is an indication that the responses are not far from each other. The confirmation of this analysis on the satisfaction level is presented in the chart 4.9 below:

Chart 4.9: A chart showing the satisfaction level of the internet banking adoption



Source: Fieldwork, July 2017

The chart 4.9 above is based on the satisfaction level of the respondents. On this while 48.84% said to be absolutely satisfied with the system, 33.49% reported to be satisfied with the system. Again, while 2.8% said they were absolutely dissatisfied with the system, another 8.8% and 6.0% respectively said they were dissatisfied and also could not discern their level of satisfaction. Based on the analysis, the researcher could report that majority of the respondents believe that they are receiving best options with the provision of the internet banking services being provided by the ADB

Table 4.3: A table showing Correlation analysis on the level of satisfaction of internet banking

		Level of satisfaction of internet banking	The internet banking is very easy to use
Level of satisfaction of internet banking	Pearson Correlation	1	-.158*
	Sig. (2-tailed)		.020
The internet banking is very easy to use	Pearson Correlation	-.158*	1
	Sig. (2-tailed)	.020	

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

Source: Fieldwork, July 2017

The researcher further carried out correlation analysis to determine the relationship of the satisfaction level of the internet banking adoption with the ease of usage as provided by the Bank. The analysis shown in table 4.3 above indicates that the correlation is significant negatively at 0.05. The implication is that the ease of use of internet banking may have not been able to act as a strong determinate in influencing the satisfaction level of the customers in the usage.

The findings from the study indicates that majority of the respondents strongly believe that they are satisfied with the provision of internet banking operations being delivered by the ADB. The staffs of the bank are however deep in the promotion of internet banking adoption. Other promotions are carried out through the print media, television/radio and online advertisement. The findings of this study concerning internet banking adoption is in confirmation with the findings of Hannon (1998) and Winner (1997) that says that properly and efficient internet banking services is able to increase the satisfaction level of customers. This finding therefore calls on the management of the Bank to embark on a massive educational campaign on the need of using the ATM, Mobile/telephone banking and the internet banking among others in order to encourage more people to enroll on them. This will help boost the services delivered by the banks. Again, the high level of education of most of the respondents indicates that those with educational background are able to comprehend the platform easily in its usage without much difficulty. This is in confirmation with Young, (2006) that said that highly educated customers are more likely to use internet banking platform as compared to the low educated customers. Management of the Bank must therefore endeavour to promote the platform in order to encourage it usage by the customers.

4.4 THE EFFECTS OF INTERNET BANKING SERVICES ON THE CUSTOMER SATISFACTION

To examine the effect of internet banking service on the satisfaction of the customers, statements were presented to the respondents for their views. The responses which were being requested from the respondents were assigned numerical value on a 5-point likert scale ranging from 1, strongly disagree through 3, neutral to 5 as strongly agree. The responses gathered were analysed using descriptive statistics by means of mean and standard deviation. The mean of the analysis is based on the scale adopted. The result of the analysis is presented below in table 4.4

Table 4.4: A table showing the effect of Internet banking adoption on the customer satisfaction

Statements	Mean	Std. Deviation
No difference in profitability as compared to branch banking	1.80	.655
Internet banking services are more profitable than traditional banking services.	4.88	.478
Internet banking services are generally cheaper than traditional banking at the branch as the cost of providing them is less.	3.87	1.033
Internet banking makes banking very convenient	4.33	.970
There is less queuing using internet banking	5.00	.068

Transaction on the internet banking is secured	2.27	1.153
The internet banking is very easy to use	4.33	.689
Transactions on the internet banking is reliable	2.11	1.183

Source: Fieldwork, July 2017

The table 4.4 above indicates the responses of the respondent on their experiences regarding internet banking on the satisfaction of the customers. The table above is a descriptive statistics conducted in the determination of the effect of internet banking adoption on the satisfaction of the customers. The responses were that customers opposed strongly to the assertion that there was no difference between traditional banking and internet banking. From the table, the customers strongly disagree to the claims that there is no difference between internet banking and branch banking. With the mean of 1.80 and the standard deviation of 0.655, the claim is opposed as the deviation is not far from the mean responses. The implication of this that majority of the respondents have the view that internet banking is more advantageous and far different from the branch banking. The table 4.1 again shows that traditional banking is less profitable as compared to the internet banking. This assertion is based on the fact that as high a mean of 4.88 with a standard deviation of 0.478, the respondents believe that internet banking is more profitable than the traditional banking. With the standard deviation of 0.48, it is an affirmation that the deviation is far from the mean, an indication that most of the respondents opted for internet banking being more profitable than the traditional banking.

Again the claim that the cost associated with internet banking is lesser as compared to the traditional banking on the branch basis had a mean of 3.87 and a standard deviation of 1.03. The implication of this analysis is that management of ADB must endeavor to promote internet banking as it is much cheaper to be accessed by the customers. This will be a source of revenue

generation which will help reduce their cost of operations and hence, increase their profits. On the assertion that Internet banking makes banking very convenient, the mean of 4.33 was generated certifying the affirmation of the respondents with a standard deviation of 0.97 which shows that the deviation is far from the mean implying that the respondents believe that internet banking is more convenient than the traditional banking practices. On the issue of having less queuing in using internet banking, the respondents agree to the assertion as the mean of 5.0 and a standard deviation of 0.68 is strong affirmation of the respondents' beliefs that there is a less queuing in the use of the platform. Again, on the statement of internet banking being very easy to use, a mean of 4.33 and a standard deviation of 0.69 were generated which imply that the responses agree to the statement. The responses, therefore call for management of the ADB to try whatever means possible to promote internet banking as the responses indicate the platform is easy to use. Also on the assertion on the transaction on internet banking being secured and reliable, the respondents reported on a mean of 2.27 with a standard deviation of 1.15 and 2.11 with a standard deviation of 1.83 respectively indicating that the respondents believe that internet banking is not secured and reliable as the responses shows that they disagree to the statements. The standard deviation which is also not far from the mean affirmed that the respondents believe that internet banking is not all that reliable and secured for banking transaction. This situation calls for awareness creation by management of ADB so that this misconception held by the respondents could be dispelled

4.4.1 Correlation Analysis on reliability and security of internet banking

Table 4.5: A table showing correlation analysis on the perception of reliability and security of internet banking

		Transactions on the internet banking is reliable	Transaction on the internet banking is secured
Transactions on the internet banking is reliable	Pearson Correlation	1	-.509**
	Sig. (2-tailed)		.000
Transaction on the internet banking is secured	Pearson Correlation	-.509**	1
	Sig. (2-tailed)	.000	

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

Source: Fieldwork, July 2017

The researcher further conducted correlation to determine the true picture on the effect on the assertion on the reliability and the security of the internet banking platform. The analysis in table 4.5 above indicates that Correlation is negatively significant at the 0.01 level. This means that even though the assertions were strongly opposed to, the negative correlation significantly implies that, the platform is still relevant for banking transaction and therefore management of the ADB must endeavour to promote the platform.

4.4.2 Regression analysis on the effect of internet banking adoption on customer satisfaction

Table 4.6: A table showing regression analysis on the effect of internet banking adoption on the customer satisfaction

Internet banking	R Square	Adjusted R Square	Std. Error of the Estimate	F Change	Sig. F Change
.635	.403	.402	.761	315.737	.000

Source: Fieldwork, July 2017

In examining the effect of internet banking adoption on the satisfaction of the customers, the researcher undertook a regression analysis using the internet banking as a composite variable against customer satisfaction. The results as shown in the table 4.6 above indicate that the model fit significantly at ($p < 0.05$). The R-Square value of 0.403 with that of the F-statistics of 315.737 as indicated in the table above implies a positive and significant relation between the internet banking adoption and the customer satisfaction. The R-square value of 0.403 shows a fitness model which implying that a 40% adoption of internet banking by ADB in its banking operations results in a higher banking service which brings about satisfaction of the customers. The value of the internet banking of 0.635 means that internet banking adoption adds 63% differences to every operations of ADB which results in the customers' satisfaction. This happens as customers are able to use the service to withdraw money, make balance enquiries, require for cheque, fund transfer, print their financial statements and undertake bill payments without necessary going to the premises of the ADB. The study also reveals that internet banking makes banking very convenient with less queuing and very easy to use than the traditional banking practices. This finding is in confirmation with the theory of technological adoption, as opined by Yi-Shun et al (2003), that, the perceived ease of use and the perceived usefulness are fundamentally said to be concepts for the principle in the determination and acceptance of the various products of

Information Technology. The customers' perceived usefulness and ease of use of internet banking have major roles in the prediction and the determination of the usage behaviour in the adoption of the internet banking platform for banking transactions (Horton, et al, 2001; Karahanna and Straub, 1999; Moon and Kim, 2001; Venkatesh, et al, 2003 ;Venkatesh and Davis, 2000).

The study however revealed that the respondents have concerns regarding the security and the reliability of internet banking, a findings which confirmed an earlier study by Hansen, 2005; Polatoglu and Ekin, 2001; Tan & Teo, 2000; Littler and Melanthiou, 2006 which revealed that security concern and reliability are issues confronting the sustainability of the internet banking adoption. This situation therefore calls for awareness creation by management of ADB so that this misconception held by the respondents could be dispelled. A further analysis indicated that even though this belief is held by the customers, the platform is still relevant for banking transaction and therefore management of the ADB must endeavour to promote the platform.

The results from the study conducted on the effects of internet banking on the satisfaction of the customers strongly agree with the study previous conducted by Onay et al (2008), Hernado et al. (2006) which agreed that the internet banking platform has a positive impact on the financial performance of banking institutions. According to Kent & Lee, (1999), Grover & Ramanlal, (2000) internet banking is able to bring down the banking cost associated with the operation. Again this finding is in confirmation with Kardaras and Papathanassiou (2001) which revealed that ICT has greatly brought down the cost of business transaction due to the cards and businesses provisions. It is also in support of Kyeremanteng (2014), which says that the technology has been able to provide customers and businesses with enhanced innovative products and services which has assisted firms in their distribution channel and serving their customers in a better and improved process. The study however contradict previous findings of Malhotra & Singh (2009), Arnaboldi & Claeys (2010) and Mohammad & Saad (2011) which

said that there is a significant negative effect on the performance of banks who rely on internet banking for the business operations as customers might not fully embrace the technology for their transactions.

This implication of this findings are that management of ADB must endeavor to find ways of embarking on educational awareness to increase the level of internet banking utilization so that their banking output would not be affected negatively.

4.5 THE CHALLENGES OF INTERNET BANKING SERVICES

Table 4.7: A table showing the challenges faced by ADB in introducing internet banking services

STATEMENTS	MEAN	STD. DEVIATION
The cost of adoption is very high.	3.46	.884
The services are simply too expensive for the lower earning customer	4.88	.478
There is technological illiteracy among customers	3.87	1.033
Lack of infrastructure is the main hurdle/problem	4.33	.970
Most of the customers prefer face to face banking	4.86	.495
Customers fear using Internet banking due to security risks concern.	4.33	.689
Traditional banking still remain the best option for our clients	2.11	1.183

Many banks fear because there are no proper laws and regulations regarding internet banking	3.78	1.129
Technology becomes obsolete within a short time	1.42	.642

Source: Fieldwork, 2017

The figure as presented in table 4.7 above is based on the analysis of the challenges confronting the internet banking adoption. On the cost of adoption being on whether it is high or not, the respondents responded with mean of 3.46 and 0.88 depicting that the respondents are not all that sure whether the cost is high or not. However, the respondents responded that the services could be said to be too expensive for customers earning a low income. This assertion is confirmed with a mean of 4.9 and a standard deviation of 0.478. This analysis shows that the respondents agree that internet banking is not favourable to low earning customers. This response again shows that the most of the respondents who took part in the data administration strongly believe that the platform is too expensive to customers on low income.

The statements, ‘lack of infrastructure as the main hurdle/problem’, ‘most of the customers preferring face to face banking’, ‘customers fear using Internet banking due to security risks concern’ respectively had the means of 4.33 (SD 0.970), 4.86 (SD 0.495) and 4.33 (SD 0.689) indicating that the customers agree to the stated statements that the absence of infrastructure, preference of customers for traditional face to face banking and the security concerns are the major challenges confronting the internet banking platform.

On the claim that there is technological illiteracy among bankers and ‘many banks fear because there are no proper laws and regulations regarding internet banking’ respectively had

means of 3.87 (SD 1.03) and 3.78 (SD 1.33) which shows that the customers are convinced that these challenges are some of the militating factors against internet banking adoption.

Again, on the statements of __traditional banking still remaining the best option for ADB's clients and technology having the tendency of becoming obsolete within a short time, statistical means of 2.11 (SD 1.18) and 1.42 (SD 0.642) were respectively derived. These responses from the respondents, however, indicate that the stated assertions are deemed to be unimportant challenges against internet banking adoption on the satisfaction of the customers.

The study conducted has revealed that lack of infrastructure, the preference of customers for face to face banking, security risks concerns are the major challenges confronting the internet banking platform. The customers' reluctance to change as they continue preferring face to face banking to internet banking is in confirmation of Kyeremateng (2014) and Daniel (1999) who said that there is always a higher level of inertia of customers in the change of their existing banking arrangements. In order to combat these menace resulting from resistance to change, Kyeremanteng (2014), recommended by saying that management must endeavor to initiate programs to reduce resistance to change.

The findings indicated that reliability, trust and security concerns as challenges confronting internet banking adoption by consumers. The finding of the study therefore is in agreement with the studies of Lee (2009) and Galle (1999) who have said that the main challenges with internet banking are security and trust issues. On the same issue, Enos (2001) argued that security, which comes in the form of protection of consumers' personal data and safe transactions to prevent fraud, is paramount for the growth of any kind of online trade.

The findings again are in confirmation of an earlier study conducted by Gardachew (2010) which stated that internet banking adoption challenges include lack of suitable legal and regulatory frame works for electronic payment systems, political instability in neighboring

countries, high rates of illiteracy and absence of common financial system platform for operation.

KNUST



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.0 Introduction

The chapter five of the study is based on the summary of the findings, the conclusion and then the recommendations for addressing the challenges confronting internet banking adoption within the banking sector in the country.

5.1 The Summary of the findings

The summary of the findings is based on the research objectives which comprise the internet banking activities, the satisfaction level of the customers on the internet banking, the effect of the adoption on the customers' satisfaction and then the challenges confronting internet banking adoption. The summary of the findings is presented below:

5.1.1 Internet Banking Activities

The study revealed that the internet banking operations within ADB is aided by the usage of ATM, telephone banking, debit cards, mobile banking and electronic transfer. The platform is used to undertake balance enquiry, cheque book requisition, funds transfer, checking and printing bank statements and utility bills payments. The study revealed that the platform does not however, allow them to undertake depositing and withdrawal of money, or any other transaction apart from the aforementioned activities. Within the activities permissible under Internet banking, the most identifiable activities as the study indicated was checking and printing of bank statements and reports.

5.1.2 The Satisfaction Level of Customers

The study revealed that internet banking is considered to be beneficial and essential to the operation of the Bank. The findings from the study indicated that majority of the respondents are satisfied with the provision of internet banking operations being delivered by the ADB.

The study again shows that awareness creation by the ADB's officials, print media, television/radio and online advertisement are used to increase the interest of customers and also sustain their satisfaction level. The finding of this study shows that properly and efficient internet banking services is able to increase the satisfaction level of customers. This findings however, shows that those with high educational background are able to comprehend the platform easily in its usage without much difficulty.

5.1.3 The Effect of Internet Banking Adoption on Customers' Satisfaction

The study shows that internet banking is more advantageous and far different from the branch banking and that the traditional banking is less profitable as compared to the internet banking. The study also revealed that the cost associated with internet banking is lesser as compared to the traditional banking or the branch banking. The findings from the study again indicated that internet banking is convenient with less queuing and very easy to use than the traditional banking practices. The study however revealed that the respondents have concerns regarding the security and the reliability of internet banking. A further analysis indicated that even though this belief is held by the customers, the platform is still relevant for banking transaction and therefore management of the ADB must endeavour to promote the platform.

The results from the study confirmed that internet banking platform has a positive impact on the financial performance of banking institutions as it is able to bring down the banking cost associated with the operation.

5.1.4 The Challenges of Internet Banking Adoption

The study revealed that lack of infrastructure, the preference of customers for face to face banking and security risks concerns are major challenges confronting the internet banking platform. The study again indicated that the cost of adoption could however be said to be too expensive for customers earning a low income making it unfavorable for low earning customers. The study has also revealed that technological illiteracy among bankers, absence of proper laws and regulations regarding internet usage, obsolescence of the technology are challenges hindering internet banking platform.

5.2 Conclusion

The study has discovered that internet banking platforms of ADB is aided by the usage of ATM, telephone banking, debit cards, mobile banking and electronic transfer which is used to undertake balance enquiry, cheque book requisition, funds transfer, checking and printing bank statements and utility bills payments. Internet banking is beneficial, essential with majority of the users being satisfied with the current internet banking operation of the Bank. This findings however, shows that those with high educational background are able to comprehend the platform easily in its usage without much difficulty. Internet banking is more advantageous and more profitable than the traditional banking. Internet banking is less costly compared to face to face banking, convenient with less queuing and very easy to use than the traditional banking practices, even though users have concerns regarding the security and the reliability of internet banking. The results from the study confirmed that internet banking platform has a positive impact on the financial performance of banking institutions as it is able to bring down the banking cost associated with the operation. The challenges of internet banking based on the study include lack of infrastructure, the preference of customers for face to face banking,

security risks concerns, cost of adoption for low earning customers, technological illiteracy among bankers, absence of proper laws and regulations regarding internet banking adoption.

5.3 RECOMMENDATION

5.3.1 Establishment of policy to address cost associated internet banking

The management of the ADB must strongly tackle the issue of cost head on. Suffice it to say that every new technology invariably comes with cost, however, the bank must find a strategic balance between the maintenance of the internet banking suit and the cost given to the customers. As it stands now, the issue of cost is a very serious concern and challenge to customers.

5.3.2 Strengthening technological activities.

The bank must continually update and adopt state-of-the-art technology to meet the changing demands and requirement of customers. The employees of the Banks must be properly trained in internet banking platform for them to be able to assist in enrolling and sustaining the users on the platform which will thus boost their satisfaction and confidence in the internet banking adoption and usage.

5.3.3 Increasing security of internet banking

The researcher recommend that the Bank of Ghana and other regulatory bodies must task the various banks in Ghana in strengthening their technological activities so as to be able to excellently serve their customers thereby improving revenue generation. This will be a source of revenue generation which will help reduce banks' cost of operations and hence, increase their profits. The Government of Ghana must endeavor to help in creating the needed policies in terms of legislations and infrastructure for the sustenance of internet banking in the country. By this, the banking sector could generate more revenues and also create employment for the nations together with their tax returns for the growth of the country.

5.3.4 Reflecting upon increasing global threat of internet security

The researcher recommends that banking industry must ensure that their planning operations include reflecting upon the ever increasing global threat of internet security so that their banking operations are not compromised and affected negatively.



REFERENCE

- Agarwal, R., Sambamurthy, V., & Stair, R. (2000). Research Report: The evolving relationship between general and specific computer self-efficacy—An empirical assessment. *Information Systems Research*, 11(4), 418-430
- Agboola, A. (2006). Information and communication technology (ICT) in banking operations in Nigeria: An evaluation of recent experiences. Retrieved June 25, 2015, from <http://unpan1.un.org/intradoc/groups/public/documents/AAPAM/UNPAN026533.pdf>
- Akpan, E.O. (2009) —Oil Price Shocks and Nigeria's macro economy| Paper presented at CSAE Conference, Oxford University, Oxford, UK. 21st-23rd March 2009.
- Akinci, S., Aksoy, S., and Atilgan, E. (2004). Adoption of Internet banking among sophisticated consumer segments in an advanced developing country, *The International Journal of Bank Marketing*, 22 (2/3), pp. 212-232.
- Al-Ghamdi, S. (2009), —Influence of Organizational Commitment & Islamic work ethics on attitudes towards organizational change.| *Journal for Global Business Advancement*, Vol. # 4, Issue # 4. (C)
- Al-Somali S.A, Gholami R and Clegg B (2008). Internet Banking Acceptance in the Context of Developing Countries: An Extension of the Technology Acceptance Model..
- Altintas, M. H. and Gürsakal, N. (2007), Phishing Attacks and Perceptions of Service Quality: A Content Analysis of Internet Banking in Turkey. *Journal of Internet Banking and Commerce*, 12 (2).
- Allen, A. P., Brown J. H. and Gillooly J.F. (2002), Global biodiversity, biochemical kinetics and the energy equivalence rule. *Science* 297:1545–1548
- Amadeh, H. and Jaafarpour, M. (2009), "Studying the obstacles and strategies of developing electronic banking in private banks of our country", *Administrative management Research Journal*, Year 9, No. 2, PP: 13-38.
- Auta P. (2010). Ebanking in Developing Economy: Empirical Evidence from Nigeria. *Journal of applied quantitative methods*, 5(2)
- Avasthi G.P, Sharma M (2000-01). _Information Technology in Banking: Challenges for Regulators', *Prajanan* 29(4): 17
- Bauer, K. and Hein, S. E. (2006), —The effect of heterogeneous risk on the early adoption of Internet banking technologies|, *Journal of Banking and Finance*, 30(6), 1713-1725.

- Bhattacharjee, A. (2001) Understanding information systems continuance: an expectationconfirmation model. *MIS Quarterly*, **25**, 351–370
- Berger, R. (2003). In the footsteps of nature. *Horizons*, **22**, 27–32
- Cai, Y., Yang, Y. & Cude, B. (2008). _Inconsistencies in US consumers' attitudes toward and use of electronic banking: an empirical investigation', *Journal of Financial Services Marketing*, **13**(2): 150–163
- Chau, K.Y, Patrick & Lai, S., K, Vincent. (2003). An empirical investigation of the determinants of user acceptance of Internet Banking. *Journal of Organizational Computing and Electronic Commerce*, **13**(2),123-145
- Chiemeké S. C, Ewwiekpaefe A. and Chete F (2006). The Adoption of Internet Banking in Nigeria: An Empirical Investigation, *Journal of Internet Banking and Commerce*, December 2006, vol. 11, no.3 (<http://www.arraydev.com/commerce/jibc/>)
- Cooper, D.R., & Schindler, P.S. (2003). *Business Research Methods*. (8th ed.). Boston
- Chovanová, A. 2006. Formy elektronického bankovníctva. In BIATEC [online]. 2006, vol. 14, no. 6, [cit. 2013-12-21]. Dostupné na internete :<http://www.nbs.sk/_img/Documents/_PUBLIK_NBS_FSR/Biatec/Rok2006/BIATEC_2006.pdf>. ISSN 1335 – 0900
- Corritore, C.L., Kracher, B., & Wiedenbeck, S. (2003). On-line trust: Concepts, evolving themes, a model. *International Journal of Human-Computer Studies*, **58**, 737758. doi:10.1016/S1071-5819(03)00041-7.
- Cormack, D. F. S. (2000). Reviewing and evaluating the literature. In D. F. S. Cormack (Ed.) *The research process in nursing* (4th Ed.). Oxford: Blackwell Sciences Ltd
- Cunningham, Gerrard, P., J.B. and Devlin, J.F. (2006), —Why consumers are not using Internet banking: a qualitative study, *Journal of Services Marketing*, Vol. 20 No. 3, pp. 160-16
- C.N. Madu, and A.A. Madu,(2002) —Dimensions of e-quality, *International Journal of Quality & Reliability Management*, Vol. 19, No. 3, pp. 246-259
- Daghfous, N. & Toufaily, E. (2007). The adoption of Internet banking by Lebanese banks: success and critical factors, research paper, Université du Québec à Montréal Retrieved from <http://www.esg.uqam.ca/recherche/document/2007/02-2007.pdf>
- Delgado, M. R. (2007) Reward-related responses in the human striatum. *Ann. NY Acad. Sci.* **1104**, 70–88. (doi:10.1196/annals.1390.002)
- Devos, T. (2006). Implicit bicultural identity among Mexican American and Asian American college students. *Cultural Diversity and Ethnic Minority Psychology*, **12**, 381-402. [Journal Citation Reports 2012 Impact Factor: 1.603; Ranking: 24/60 (Psychology Social); Rejection rate: 80%

- De Young R. (2001). The internet's place in the banking industry. Chicago Fed letter no. 163. http://www.chicagofed.org/publications/fedletter/2001/cflmar2001_163.pdf
- De Young, R. (2006) —The performance of Internet-based business models: evidence from the banking industry, *Journal of Business*, 78(3), p. 893-947
- De Young, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, 93, 880–896.
- Furst, Karen, William W. Lang, and Daniel E. Nolle (2000). —Internet Banking: Developments and Prospects, *Economic and Policy Analysis Working Paper 20009*, Office of the Comptroller of the Currency (September)
- Flynn, L. R., and Goldsmith, R. E. (1993), Application of the Personal Involvement Inventory in Marketing, *Psychology and Marketing*, 10 (4), pp.357-336.
- Ghauri, P. N., Grønhaug, K. & Kritianslund, I. (2005). *Research methods in business studies: A practical guide*. Prentice Hall:Dorchester
- Gardachew, W. (August, 2010). Electronic-banking in Ethiopia- practices, opportunities and challenges. *Journal of Internet Banking and Commerce*, vol. 15, no.2
- Garau, C. (2002) Online banking in transition economies: The implementation and development of online banking systems in Romania, *International Journal of Bank Marketing*, 20 (6), 285296
- Gerrard, P., Cunningham, J.B. and Devlin, J.F. (2006). Why consumers are not using internet banking: a qualitative study. *Journal of Services Marketing*, 20 (3), 160-8
- Gillis, A. & Jackson, W. (2002): *Research for Nurses – Methods and Interpretation*. Philadelphia: F. A. Davis Company
- Hazlina, T. et al (2011), Impacts of Service Quality on Customer Satisfaction: Study of Online Banking and ATM Services in Malaysia. *International Journal of Trade, Economics and Finance*, Vol.2, No.1, pp 023
- Hernando M.D., M. Mezcuca, A.R. Fernández-Alba and D. Barceló. (2006). Environmental risk assessment of pharmaceutical residues in wastewater effluents, surface waters and sediments. *Talanta* 69:334-342.
- Kang, G.D. and James, J. (2004), —Service quality dimensions: an examination of Gronroos's service quality model, *Managing Service Quality*, Vol. 14 No. 4, pp. 266-77
- Jaruwachirathanakul, B., and Fink, D. (2005). Internet banking adoption strategies for a developing country: the case of Thailand, *Internet Research*, 15 (3), pp. 295-311
- Karjaluoto, H., Mattila, M. & Pento, T. (2002). Electronic banking in Finland —consumer beliefs and reactions to a new delivery channel. *Journal of Financial Services*

Marketing 6 (4), forthcoming. Factors underlying attitudeformation toward Internet banking. Paper under review with the European Journal of Marketing

Kaynak, E. and Harcar, T. D. (2005). Consumer attitudes towards online banking: a new strategic marketing medium for commercial banks. *Int. J. Technology Marketing*, 1 (1), 6278

Kim, B. M., Widdows, R. and Yilmazer, T. (2005), The Determinants of Consumers' Adoption of Internet Banking. *Proceedings of the Consumer Behavior and Payment Choice 2005 Conference*, Boston, MA

Laforet, S., Li, X., (2005). Consumers' attitudes towards online and mobile banking in China. *The International Journal of Bank Marketing* 23 (4/5), 362-380

Lee, D.S., Owen, B., Graham, A., Fichter, C., Lim, L.L., Dimitriu, D., (2005). Allocation of International Aviation Emissions from Scheduled Air Traffic – Present Day and Historical (Report 2 of 3). Manchester Metropolitan University, Centre for Air Transport and the Environment, Manchester, UK.
http://www.cate.mmu.ac.uk/project_view.asp?chg¼projects&chg2¼42&id¼42
CATE2005-3(C)-2See (accessed18.02.09).

Liao, Z. and Cheung, M.T. (2002). Internet-based Internet bankingand Consumer Attitudes: An Empirical Study. *Information and Management*, Vol. 39, pp. 283–295

Lockett, A. and Litter, D. (1997) _The Adoption of Direct Banking Services,' *Journal of Marketing Management*, 13, 791-811

Macnee, C. and McCabe, S. 2007. *Understanding nursing research,reading and using research in evidence- based practice* (2nd ed).Wolters Kluwer, Lippincott, Williams and Wilkins: Philadelphia, Pennsylvania, USA

Malhotra, N., & Mukherjee, A. (2004). The relative influence of organizational commitment and job satisfaction on service quality of customer-contact employees in banking call centres. *Journal of Services Marketing*, 18(3), 162–174.

Malhotra, P. & Singh, B. (2009). The impact of internet banking on bank performance and risk: The Indian experience. *Eurasian Journal of Business and Economics*, 2 (4), 4362

Marfo-Yiadom, E., & Ansong, A. (2012). Customers' Perception of Innovative Banking Products in Cape Coast Metropolis, Ghana. *International Journal of Business and Management*, 7(3), 162–172. <http://dx.doi.org/10.5539/ijbm.v7n3p162>

Maylor, H. and Blackmon, K. (2005) *Researching Business and Management: A Roadmap for Success*, Basingstoke: Palgrave Macmillan

MEDHI, I., GAUTAMA, S. N. N., AND TOYAMA, K. (2009). A comparison of mobile money transfer is for non-literate and semi-literate users. In *proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*

- Mia, Md.Abdul Hannan, Rahman, Mohammad Anisur and Debnath, Nitai Chandra (2007).
—Consumer behaviour of On-line Banking in Bangladesh, *Journal of Business Studies*, Vol. XXVII, No. 2, December
- Min, H., & Galle, W.P. (1999). Electronic commerce usage in business-to-business purchasing. *International Journal of Operations & Production Management*, Vol. 19 No.9, pp.909-21
- MUKHERJEE, A. & NATH, P. (2003) A model of trust in online relationship banking. *International Journal of Bank Marketing*, VOL.21, No.1, 5-15.
- Onay, C.; Ozsoz, E.; Helvacioğlu, & Ash, D. (2008). The Impact of Internet Banking on Banks Profitability- The Case of Turkey, *Oxford Business and Economics Program*. Available at:<http://www.Papers.ssrn.com/sol3/Delivery.cfm?abstractid=1698783>
- Ozsoz, E., Onay, C. and A.D. Helvacioğlu (2008), —The Impact of Internet-Banking on Bank Profitability- The Case of Turkey, *Proceedings of 2nd Oxford Business and Economics Conference* , pp.1-16, 22-24 June 2008, St. Hugh's College, Oxford University, UK
- Parahoo, K. (2006): *Nursing Research – Principles, Process and Issues*. 2nd Edition. London: Palgrave MacMillan
- Padachi, K., Rojid, S., and Seetanah, B. (2007). Analyzing the factors that influence the adoption of internet banking in Mauritius, Paper presented at the Proceedings of the 2007 Computer Science and IT Education Conference.
- Parasuraman, A., Zeithaml, V. and Berry, L.L. (1985), —A conceptual model of service quality and its implications for future research, *Journal of Marketing*, Vol. 49, Autumn, pp. 41-50.
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahlila, S. (2004), *Consumer acceptance of online banking: An extension of the technology acceptance model*. *Journal of Internet Research*, Vol. 52 No. 2, pp. 67-83.
- Polatoglu, V. N., & Ekin, S. (2001). An empirical investigation of the Turkish consumers' acceptance of internet banking services. *International Journal of Bank Marketing*, 19 (4), 156-65
- Polit D, Beck C (2006) *Essentials of Nursing Research: Methods, Appraisal and Utilization*. 6th edn. Lippincott Williams and Wilkins, Philadelphia
- Raechel Johns, Bruce Perrott, (2008) "The impact of internet banking on business-customer relationships (are you being self-served?)", *International Journal of Bank Marketing*, Vol. 26 Iss: 7, pp.465 – 482

- Rasiah, R.—. 2010. —Industrialization in the second-tier NIEs, in R. Rasiah; D.J. Schmidt (eds): The new political economy of Southeast Asia (Cheltenham, Edward Elgar), pp. 44–102
- Rose, P. S. (1999). Commercial bank management. Boston, Irwin/McGraw-Hill.
- Salhi, M., & Alipour, M. (2010). Internet banking in emerging economy: empirical evidence of Iran. *International Journal of Economics and Finance*, 2(1), 201-209
- Sarokolaei, M. A. et al. (2012) —A comparative study of activity-based costing system and the traditional system: A case study of Refah Bank| *African Journal of Business Management* Vol.6 (45): 11221-11230
- Sathye, M. (1999). Adoption of internet banking by Australian consumers: an empirical investigation. *International Journal of Bank Marketing*, 17 (7), 324-34
- Shah, D. V., Cho, J., Eveland, W. P., & Kwak, N. (2005). Information and expression in a digital age: Modeling Internet effects on civic participation. *Communication Research*, 32, 531–565
- Shetty, Prakash S. (2000). Diet and life-style and chronic non-communicable diseases: What determines the epidemic in developing societies? In *Nutrition Research: current scenario and future trends*, Kamala Krishnaswamy, ed. Oxford and IBH, New Delhi, pp. 153-168.
- Stewart C., Myers 1999. "Financial Architecture." *European Financial Management*. 5:2, pp. 133-41
- Speece, M. and Suwannaporn, P., (2000) —Continuous Learning Process in New Product Development: The Case of the Thai food Industry, *British Food Journal*, 102(8) : 598-614
- Tiwari, R. and S. Buse, *The Mobile Commerce Prospects: A Strategic Analysis of Opportunities in the Banking Sector*, unpublished.
- Twumasi P. A (2001). *Social research in rural communities*. Accra, Ghana: Ghana Universities Press.
- Venkatesh, V., Morris, M. G., Davis, G. B., and Davis, F. D. (2003).—User Acceptance of Information Technology: Toward a Unified View, *MIS Quarterly* (27:3), pp. 425-478
- Wan, W.W.N.; Luk, C.L.; and Chow, C.W.C. (2005), *Customers Adoption of Banking Channels in Hong Kong*, *International Journal of Bank Marketing*, Vol. 23, No. 3, pp. 255-272
- Wondwossen, T and Tsegai, G (2005), 'E-payment: challenges and opportunities in Ethiopia', *Economic commission for Africa*, Addis Ababa, Ethiopia

APPENDIX 1

QUESTIONNAIRE FOR STAFF

I am a postgraduate student of The KNUST School of Business, conducting a research on the impact of the Internet banking services on the customer satisfaction as part of preparation for a Master's Degree Programme. Your organization has been chosen for a study for academic purposes and therefore I would appreciate your voluntary cooperation to complete the questionnaire. All information provided by respondents will be treated confidentially.

Instruction: Please tick your response in the space provided. In all such cases where more than one responses is necessary under the same Question, please tick as many responses as are applicable

SECTION A: GENERAL PROFILE OF RESPONDENTS:

1. Age of respondent: 20 – 30years 31– 40years (C) 41 – 50years 51– 60years
61years and above
2. Gender; Male Female
3. Marital Status: Married Single Divorced Widow
4. Highest level of education: PhD Master's Degree First Degree HND
 SSCE/WASSCE others (please specify).....
5. How long have you been working in ADB?
0 – 5 years 6 – 10 years 11 – 15 years 16 – 20 years above 20 years

SECTION B: THE INTERNET BANKING ACTIVITIES OF ADB

6. Which of the following Internet banking activities are provided by ADB?
- a) ATM banking
 - b) Telephone banking
 - c) Credit Cards
 - d) Debit Cards
 - e) Mobile banking

f) Electronic transfers (EFTs)

g) Internet banking

7. Indicate your level of agreement on the following statements by ticking the appropriate number using the key given below: 5 = strongly agree 4= Agree 3=Neutral 2 = Disagree 1= strongly Disagree on **the Internet banking activities of ADB.**

ADB internet banking is used to perform:	1	2	3	4	5
a) Cash withdrawal					
b) Cash and cheque deposit					
c) Balance enquiry					
d) Cheque book requisition					
e) Utility bills payments					
f) Statement requisition					
g) Call credit top ups					
h) Funds transfers					

SECTION C: SATISFACTION LEVEL OF INTERNET BANKING ADOPTION

8. In general, what do you feel about Internet banking as a new system of delivering banking services?

a) Essential

b) Desirable

c) Cannot say exactly

Any other (Please specify)

9. How do you let your customers know about Internet banking services you provide? (Tick applicable one(s))

a) Through bank officials

b) Advertisement in Print Media

c) Television and Radio Advertisement

d) On line Advertisement

e) Through their employers

f) Any other (Please specify)

10. Kindly rate your level of satisfaction with the ADB internet banking activities

Absolutely Satisfied, Satisfied, Dissatisfied Absolutely Dissatisfied, None

SECTION C: THE EFFECTS OF INTERNET BANKING ON CUSTOMER SATISFACTION.

11. Indicate your level of Agreement on the following statements by ticking the appropriate number using the key given below: 5 = strongly agree 4= Agree 3=Neutral 2 = Disagree 1= strongly Disagree

Items description	1	2	3	4	5
No difference in profitability as compared to branch banking					
Internet banking services are more profitable than traditional banking services.					
Internet banking services are generally cheaper than traditional banking at the branch as the cost of providing them is less.					
Internet banking makes banking very convenient					
There is less queuing using internet banking					
Transaction on the internet banking is secured					
The internet banking is very easy to use					
Transactions on the internet banking is reliable					

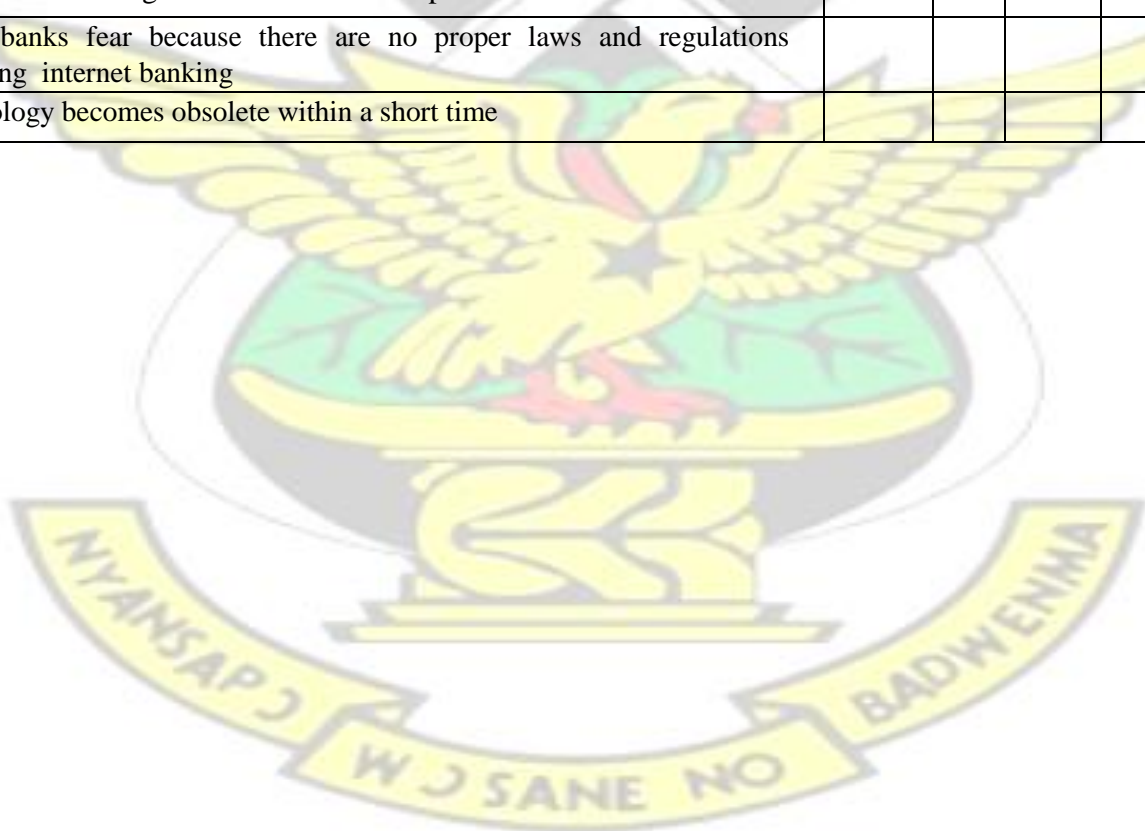
SECTION D: The challenges faced by ADB in the introduction of internet banking

services

12. Indicate your level of Agreement on the following statements by ticking the appropriate number using the key given below: 5 = strongly agree 4= Agree 3=Neutral 2 = Disagree 1= strongly Disagree

In your own opinion what are the challenges facing the adoption of Internet banking technologies? (Please give your opinion to the following statements in the appropriate column.)

STATEMENTS	1	2	3	4	5
The cost of adoption is very high.					
The services are simply too expensive for the lower earning customer					
There is technological illiteracy among customers					
Lack of infrastructure is the main hurdle/problem					
Many banks fear cross-border risk since the laws are different from one country to another					
Most of the customers prefer face to face banking					
Customers fear using Internet banking due to security risks concern.					
Traditional banking still remain the best option for our clients					
Many banks fear because there are no proper laws and regulations regarding internet banking					
Technology becomes obsolete within a short time					



QUESTIONNAIRE FOR CUSTOMERS

I am a postgraduate student of The KNUST School of Business, conducting a research on the impact of the Internet banking services on the customer satisfaction as part of preparation for a Master's Degree Program. Your organization has been chosen for a study for academic purposes and therefore I would appreciate your voluntary cooperation to complete the questionnaire. All information provided by respondents will be treated confidentially.

Instruction: Please tick your response in the space provided. In all such cases where more than one responses is necessary under the same Question, please tick as many responses as are applicable

SECTION A: BACKGROUND Information

1. Age of respondent: 20 – 30years 31– 40years (C) 41 – 50years 51– 60years 61years and above
2. Gender; Male Female
3. Marital Status: Married Single Divorced Widow
4. Highest level of education: PhD Master's Degree First Degree HND SSCE/WASSCE others (please specify).....
5. How long have you been a customer of ADB? : 1 – 10years 11– 20years 21 – 30years 31years and above

SECTION B: The electronic banking activities offered by ADB

6. Which among the following Internet banking activities are provided by ADB?

- a) ATM
- b) Internet banking
- c) Mobile banking
- d) Phone Banking
- e) Internet banking
- f) Debit Cards
- g) Credit cards
- h) Any other (Please specify)

.....

.....

SECTION C: SATISFACTION LEVEL OF CUSTOMERS IN INTERNET BANKING

ADOPTION

7. For how long, have you been using Internet banking services?

- (a) Less than 1 year [] (b) 1-5 years [] (c) 6-10 years [] (d) 11-15 years [] e.)
More than 15 Years []

8. How did you come to know about Internet banking services? (Tick as many as applicable)

- a) From bank officials []
b) Advertisement in Print media []
c) Television and Radio Advertisement []
d) On line Advertisement []
e) Any other (Please specify)

.....

9. Kindly rate your level of satisfaction with the ADB internet banking activities

- Absolutely Satisfied, Satisfied, Dissatisfied Absolutely Dissatisfied, None

SECTION C: The effects of internet banking services on the customer satisfaction

10. Indicate your level of Agreement on the following statements by ticking the appropriate number using the key given below: 5 = strongly agree 4= Agree 3=Neutral 2 = Disagree 1= strongly Disagree

Items description	1	2	3	4	5
No difference in profitability as compared to branch banking					
Internet banking services are more profitable than traditional banking services.					
Internet banking services are generally cheaper than traditional banking					
Internet banking makes banking very convenient					

There is less queuing using internet banking					
Transaction on the internet banking is secured					
The internet banking is very easy to use					
Transactions on the internet banking is reliable					

SECTION D: The challenges faced by ADB in introduction of internet banking services

11. Indicate your level of Agreement on the following statements by ticking the appropriate number using the key given below: 5 = strongly agree 4= Agree 3=Neutral 2 = Disagree 1= strongly Disagree

In your own opinion what are the challenges facing the adoption of Internet banking technologies? (Please give your opinion to the following statements in the appropriate column.)

STATEMENTS	1	2	3	4	5
The cost of adoption is very high.					
The services are simply too expensive for the lower earning customer					
I have no technological illiteracy about internet banking					
Lack of infrastructure is the main hurdle/problem					
I prefer face to face banking					
Customers fear using Internet banking due to security risks concern.					
Traditional banking still remain the best option for me					
There are no proper laws and regulations regarding internet banking					
Technology becomes obsolete within a short time					