

**PROSPECTS AND CHALLENGES OF ELECTRONIC BANKING
IN GHANA – A CASE STUDY OF SG-SSB BANK LIMITED,
ACCRA**

BY

SUMANI YAHYA (BA INTGRD DEV'T STUDIES Hons)

**A Thesis submitted to the Institute of Distance Learning, Kwame
Nkrumah University of Science and Technology, in partial fulfillment
of the requirements for the degree of
COMMONWEALTH EXECUTIVE MASTER OF
BUSINESS ADMINISTRATION**

Institute of Distance Learning-KNUST

June, 2011

DECLARATION

I hereby declare that this submission is my own work towards the CEMBA 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.

.....
Student Name & ID Signature Date

Certified by:

.....
Supervisor's Name Signature Date

Certified by:

.....
Head of Dept. Name Signature Date

DEDICATION

I dedicate this work to my late mother Madam Ayishetu Sumani and Zainab Taylor for their love and encouragement.

KNUST



ABSTRACT

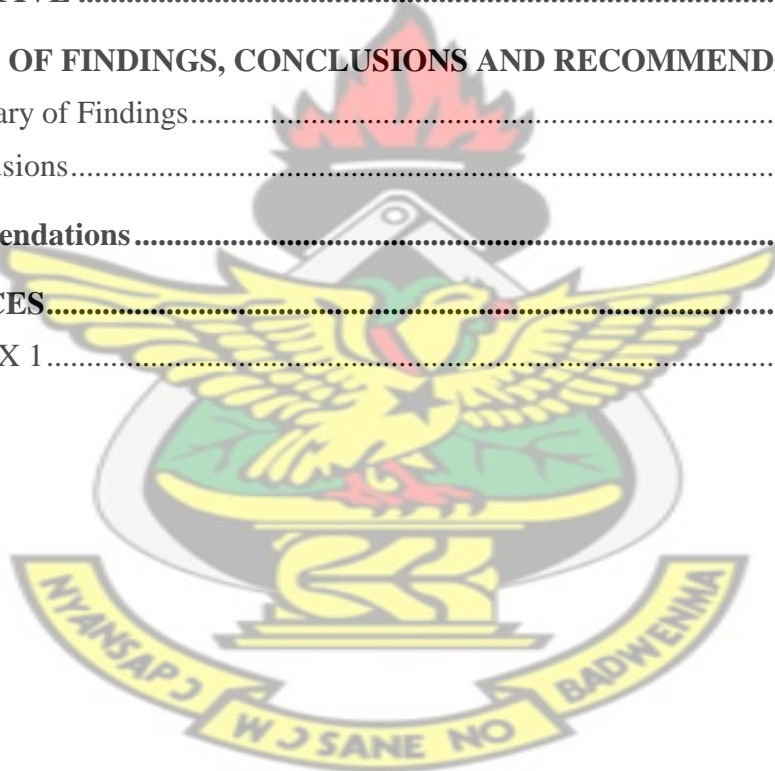
The advent of current technology such as internet use is developing fast and is constantly bringing new dimensions to our daily life. The banking industry is one of the sectors that has benefited from the evolving technology by the introduction of Electronic banking (E-banking) systems which provide easy access to banking services. This study was carried out to assess the prospect and challenges of E-banking in SG-SSB LTD in Accra, Ghana. Ninety (90) structured questionnaires were administered to customers of E-banking products and some banking staffs to gather information concerning E-banking. The study indicated that 96.7% of respondents used E-banking products very often and had different types of E-banking products. The study also identified the main E-banking products of the bank namely: ATM, Sikatext, Sikanet, Sikamail, and Sikatel. Most respondents (44.40%) prefer ATM relative to other E-banking products, however, most customers also uses combination of the products. The study identified benefits customers derive from E banking as saving of time, quickness in banking transactions, easy access to account details and reduction of long queues in banking halls. According to the study, customer satisfaction and competition from other banks were the main influencing factors for E-banking adoption. Notwithstanding E-banking advantages, it is confronted with challenges such as frequent network failure, high bank charges, limit on amount of cash withdrawal and wrong debit was identified as the paramount challenges. Nevertheless, respondents recommended that for effective E-banking system, customer education and marketing of E-banking products should be the key strategy to use to attract more customers, increasing security for E-banking products, reduction of charges of E-banking products and increasing more ATM outlets in the country.

TABLE OF CONTENTS

| | |
|---|-------------|
| DECLARATION..... | ii |
| DEDICATION..... | iii |
| ABSTRACT..... | iv |
| TABLE OF CONTENTS | v |
| LIST OF TABLES | viii |
| LIST OF FIGURES | ix |
| LIST OF ABBREVIATIONS | x |
| ACKNOWLEDGMENT | xi |
| CHAPTER ONE | 1 |
| INTRODUCTION..... | 1 |
| 1.1 Background to the study | 1 |
| 1.2 Problem Statement | 3 |
| 1.3 General Objective | 4 |
| 1.4 Research Questions | 5 |
| 1.5 Justification of Study | 5 |
| 1.6 Limitation of the study | 6 |
| 1.7 Scope of work | 6 |
| 1.8 Organisation of the Study | 7 |
| CHAPTER TWO | 8 |
| LITERATURE REVIEW | 8 |
| 2.1 Defining Electronic banking | 8 |
| 2.2 Importance of E-banking | 9 |
| 2.3 Types of E-banking | 12 |
| 2.3.1 Internet banking: | 12 |
| 2.3.3 Telephone Banking (Telebanking) | 14 |
| 2.4 Delivery channels of E-banking | 14 |
| 2.4.1 Automated Teller Machines (ATMs)..... | 14 |
| 2.4.2 Personal Computer Banking Services | 16 |
| 2.4.3 Electronic Funds Transfer at Point of Sale (EFTPoS) | 16 |

| | |
|---|-----------|
| 2.4.4 Credit Cards | 17 |
| 2.4.5 Debit Cards | 18 |
| 2.5 Characteristics of E-banking..... | 18 |
| 2.6 E-banking in Ghanaian Banks | 19 |
| 2.6.1 E-banking AT SG-SSB | 20 |
| 2.6.2 Sikamail | 22 |
| 2.6.3 SIKATEL..... | 23 |
| 2.6.4 SIKATEXT SHORT MESSAGE SERVICE(SMS) Baking | 23 |
| 2.7 Challenges of E-banking..... | 24 |
| 2.8 E-Banking Fraud..... | 26 |
| 2.9 Security Measures to Avoid E-banking Fraud..... | 26 |
| CHAPTER THREE | 28 |
| METHODOLOGY | 28 |
| 3.1 Study Area | 28 |
| 3.2 Study Design..... | 28 |
| 3.3 Target Population..... | 29 |
| 3.4 Sampling and Sampling Technique | 29 |
| 3.5 Sources of Data..... | 29 |
| 3.6 Data collection instruments..... | 30 |
| 3.7 Data collection procedure | 30 |
| 3.8 Data Analysis | 31 |
| 3.9 Limitations | 31 |
| CHAPTER FOUR..... | 32 |
| RESULTS AND DISCUSSIONS | 32 |
| 4.0 Introduction..... | 32 |
| 4.1 Demographics of respondents..... | 32 |
| 4.2 Types of customers at SG-SSB..... | 33 |
| 4.3 Forms of Banking Services in Ghana | 34 |
| 4.4 Respondents' views on E-banking..... | 35 |
| 4.5 Respondents having access to E-banking | 36 |
| 4.6 Places respondents use E- banking facilities | 37 |
| 4.7 Types of E-banking facility used by respondents | 38 |
| 4.8 Reasons for using E-banking facilities | 39 |
| 4.9 Introduction of E-banking in Ghana | 40 |

| | |
|---|-----------|
| 4.10 Respondents Preference of E-banking products | 41 |
| 4.11 Advantages of E-banking over traditional banking | 43 |
| 4.12 Factors Influencing Adoption of E-banking in SG-SSB..... | 44 |
| 4.13 Respondents level of satisfaction on the use of E-banking..... | 46 |
| 4.14 Time Spent by respondents on the use of E-banking..... | 47 |
| 4.15 Respondents perceptions towards the effectiveness of E-banking | 48 |
| 4.16 The impact of E-banking to respondents | 49 |
| 4.17 Reasons in using E-Banking products with regards to security..... | 50 |
| 4.18 Respondents view on E-banking concerning fraud | 51 |
| 4.19 Challenges of E-banking..... | 52 |
| 4.20 Ways to enhance E-Banking in SG-SSB | 53 |
| CHAPTER FIVE | 55 |
| SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS | 55 |
| 5.1 Summary of Findings..... | 55 |
| 5.2 Conclusions..... | 57 |
| 5.3 Recommendations | 58 |
| REFERENCES..... | 59 |
| APPENDIX 1..... | 63 |



LIST OF TABLES

| Table | Page |
|--|------|
| Table 1: Key benefits of E-banking | 11 |
| Table 2: Educational level of respondents | 32 |
| Table 3: Respondents' view of E-banking | 36 |
| Table 4: Places respondents use E-banking | 38 |
| Table 5: Types of E-banking facility used by respondents | 39 |
| Table 6: Reasons for using E-banking products | 40 |
| Table 7: Preference of E-banking products | 42 |
| Table 8: Respondent's reasons for preference of their E-banking products | 42 |
| Table 9: Advantages of E-banking over the traditional banking. | 44 |
| Table 10: Factors Influencing Adoption of E-banking in SG-SSB | 45 |
| Table 11: Respondents level of satisfaction on the use of E-banking | 46 |
| Table 12: Level of satisfaction of E-banking products | 49 |
| Table 13: Reasons for safety in using E-Banking products | 51 |
| Table 14: Challenges facing E-banking products | 53 |
| Table 15: Ways to enhance E-Banking in SG-SSB | 54 |

LIST OF FIGURES

| Figure | Page |
|---|------|
| Figure 1: Distribution of categories of respondents..... | 33 |
| Figure 2: Types of customers at SG-SSB | 34 |
| Figure 3: Distribution of respondents concerning forms of banking services in Ghana | 35 |
| Figure 4: Respondents having access to E-banking facilities..... | 37 |
| Figure 5: Distribution of respondents concerning usage duration of E-banking products..... | 41 |
| Figure 6: Ranking of E-banking products by preference..... | 43 |
| Figure 7: Distribution concerning preference of E-banking by other customers..... | 46 |
| Figure 8: Distribution of respondents concerning time spent using E-banking products | 47 |
| Figure 9: Distribution of respondents concerning effectiveness of E-banking..... | 48 |
| Figure 10: Distribution of respondents concerning positive impact of E-banking..... | 50 |
| Figure 11: Distribution of respondents concerning fraud in E-banking | 52 |

LIST OF ABBREVIATIONS

ATM – Automated Teller Machine

AVR – Automated Voice Response

BCBS – Basel Committee on Banking Supervision

E-banking – Electronic Banking

EFTPS – Electronic Funds Transfer At Point Of Sale

EFT – Electronic Funds Transfer

E-Saved – Electronic Saved

FTC – Federal Trade Commission

GSE – Ghana Stock Exchange

I T-Information Technology

IVR – Interactive Voice Response

PIN – Personal Identification Number

PC BANKING – Personal Computer Banking

PC – Personal Computer

PDA – Personal Digital Assistant

PDF – Printable Document Format

POS – Point Of Sale

SG-SSB – Societe Genarale – Social Security Bank

SMEs – Small and Medium Enterprises

SMS-Short Message Service

UK – United Kingdom

ACKNOWLEDGMENT

The researcher would like to express his sincere appreciation to all those who provided assistance, encouragement, and support throughout the course of this thesis.

I would like to especially thank my supervisor, Mr. Francis Onuman for his guidance, encouragement and helpful advice. Your positive attitude was extremely contagious, and every visit to you for your comments convinced me all the more that I was actually going to make it!

Special thanks also go to Mr. Ben Jesiwuni of SG-SSB Limited for his support in collecting the data. To the staff of SG-SSB Limited, in Accra, I am extremely proud to claim you as my co-workers and friends in helping me to finally collect data for this study.

Zainab, Hilda, Hajia Lamnatu, without your knowledge, patience, and willingness to help, this study would have been impossible.

A special thank you to my loving and supportive family and friends (Alhassan, ASquare, Rauf, George, Dokrugu, Aisha, and Rashid) your positive words of encouragement gave me the necessary strength to see this thesis to its conclusion.

And finally, to all my course mates and all those whose names were not mentioned but contributed to the success of this work, I say a big thank you.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

The increasingly competitive environment in the financial service market has resulted in pressure to develop and utilise alternative delivery channels. The most recently delivery channel introduced is online or electronic banking also known as e-banking (Daniel & Storey, 1997). Online or electronic banking systems give everybody the opportunity for easy access to their banking activities. These banking activities may include: retrieving an account balance, money transfers between a user's accounts, from a user's account to someone else's account, retrieving an account history. Some banks also allow services such as stock market transactions, and the submission of standardized accounting payment files for bank transfers to third parties (Claessens et al., 2002). It had been projected that more than 32 million households globally were banking online by 2003 (Simpson, 2002). Banks and other financial institutions have moved to e-banking in their efforts to cut costs while maintaining reliable customer service (Kolodinsky and Hogarth, 2001).

It is evident that banks and other financial institutions in developed and developing countries are embracing e-banking. As technology evolves, different kinds of electronic banking systems emerge, each bringing a new dimension to the interaction between user and bank. They include Automated Teller Machine (ATM), mobile and Internet (online) banking, electronic funds transfer, direct bill payments and credit card (Gikandi and Bloor, 2010; Liaoa and Cheung, 2002). The use of these facilities is on the increase. For example, in Kenya and Singapore a recent survey indicates that there is steady increase in use of E-banking technologies such as Automated Teller

Machine (ATM), mobile and Internet (online) banking, electronic funds transfer, direct bill payments and credit card (CBK 2008; Liaoa & Cheung, 2002). Among these E-banking facilities, the Automated Teller Machine (ATM) is the first well-known and widely adopted system that was introduced to facilitate the access of the user to his banking activities (Nyangosi et al. 2009; Claessens et al., 2002)

In Ghana, most banks are also adopting e-banking system which is the state - of- the art. In addition, many banks are making what seem like huge investments in technology to maintain and upgrade their infrastructure, in order not only to provide new electronic information based services, but also to manage their risk positions and pricing (Abor, 2004). The earliest forms of electronic and communications technologies used mainly in Ghanaian banking offices were automation devices. However, Telephones, telex and facsimile were employed to speed up and make more efficient the process of servicing clients (Abor, 2004).

SG-SSB is among the oldest and larger Ghanaian Banks. The name "SG-SSB" stands for "Société Générale - Social Security Bank"; the bank is part of the Société Générale banking group (en.wikipedia.org/wiki/SG-SSB accessed on 29/03/11). The bank is the 4th largest bank in Ghana and has 38 networked branches in Ghana (www.sg-ssb.com.gh/bank/ accessed on 29/3/11). The mission of the bank is to create the preferred banking institution, which employs professionalism, teamwork and innovation to provide quality products and services that best satisfy the needs of our customers. The Bank operates in the Retail, Corporate and Small and Medium scale Enterprise banking markets (www.sg-ssb.com.gh/bank/ accessed on 29/3/11).

They operate both the traditional form of banking along side the E-banking. SG-SSB was the first bank to introduce the following products in the country: Doorstep Banking: the physical collection of cash at the doorstep of corporate customers, Special Farmers Loan: whereby Cocoa farmers are given pre-harvest financing and Consumer Credit Loan Scheme for workers.

Their E-banking facilities include Automated Teller Machine (ATM), Sika Card: the first electronic smart card in Ghana. Sikatel, the first banking access by phone in Ghana, Sikatext: Banking information by SMS (www.sg-ssb.com.gh/bank/ accessed on 29/3/11). These devices are making banking very easy and convenient comparable to the traditional way. However, as the banking industries embrace these new opportunities they have to contend with issues and face challenges that arise in the context of banking risks. Less documentation was done in Ghana concerning customer preference, challenges and prospect in the E-banking section of SG-SSB. This study intends to find out how the bank is facing these challenges and the way forward.

1.2 Problem Statement

One main advancement technology has brought to us is the introduction of electronic banking or E-banking. Traditional banking is characterized by physical decentralization, with branches scattered around populated areas to give customers easy geographical access (Ainin et al., 2005). E- Banking does away with the need for most visits to the bank. However, according to Locket & Littler (1997), physical banks assure customers that their banks has substantial resource and guarantee the security of their savings. A study indicated that although electronic banking has been available in the UK since the early 1980s, it is still at an embryonic stage. It is not

clear whether all customers want or are comfortable with electronic banking (Daniel & Storey, 1997). Technology is changing at a rapid pace making it difficult for both the customer and the bank to determine the best approach. Particular problems arise with trying to integrate new channels with legacy channels. It is for these reasons that academic research is needed in this newly emerging delivery channel (Daniel & Storey, 1997).

Similarly, in Ghana, most banks practicing E-banking are also facing challenges such as customer preference of the E-banking facility, convenience of clients to utilize and adopt E-banking facilities. While numerous studies have been undertaken to examine issues in the wider context of E-banking and customer loyalty, comprehensive research in the area of E-banking issues and customer preferences in the specific context of Ghana has been rather limited. This study attempted to identify prospects and influencing challenges inhibiting acceptance of E-banking in SG-SSB.

1.3 General Objective

The main objective of the study was to determine the prospect and challenges of E-banking in Ghana.

Specific Objectives

The specific aims of the study are:

1. To identify customer preference of the electronic banking products of the bank
2. To identify advantages associated with the use of electronic banking facilities
3. To examine the factors that affect adoption of E-banking
4. To identify the challenges facing the E-banking users and how to address them
5. To identify how to enhance E-banking usage in SG-SSB.

1.4 Research Questions

Based on the above stated objectives, the following research questions were answered:

1. Why customers prefer some E-banking products over others?
2. What advantages do E-banking users have over non-users?
3. What factors affect adoption of E-banking?
4. What are challenges facing E-banking users?
5. Is enhancement of E-banking usage possible among non-users?

1.5 Justification of Study

Commercial banking is undergoing rapid change, as the international economy expands and advances towards institutional and market completeness. A major force behind these developments is technology, which is breaching geographical, industrial and regulatory barriers, creating new products, services and market opportunities, and developing more information and systems-oriented business and management processes (Liao & Cheung, 2002). One of the products of global technological changes is the advent of electronic banking (E-banking). E-banking has become prevalent and employed by many financial institutions to reduce costs associated with having personnel serve customers physically, shorten processing periods, increase speed, improve flexibility of business transaction and provide better service in all (Shih & Fang, 2004). It has been identified as the fastest growing area for business (Aladwani, 2001) and many banks are improving on use of their E-banking facilities to move along with global trend.

Much documentation on E-banking services has been carried out elsewhere (Daniel and Storey, 1997; Liaoa & Cheung, 2002; Claessens et al., 2002). However, in Ghana, there is little or no information concerning E-banking usage. The impact of E-banking products usage on customers needs to be assessed. This assessment would enable the banks to adopt new strategies to cope with challenges and meet customer needs in the use of these e-banking facilities.

1.6 Limitation of the study

Within the scope of the study, the problem of getting most appropriate interviewees to answer the questionnaire willingly was envisaged. However, the researcher ensures that respondents gave relevant information concerning the study. Furthermore, some important official documents that would allow the researcher to carry out the study were not released by the bank since they are confidential. Therefore, referencing some of the information from records was not detail. Time and resource constraints also limited the study.

1.7 Scope of work

The study was conducted at the only three selected SG-SSB branches in Accra. The branches are Ring road Central, Accra main and Kaneshie branches. These branches were selected because of the extensive use of E-banking facilities or products and their close proximity to the researcher. The study involved staff from the Information Technology (IT) Department, other bank workers such as cashiers, accounts offices and customers who use the E-banking facilities or products. The study laid emphasis on prospects and challenges in the use of the E-banking in Ghana.

1.8 Organization of the study

The research report was organised into five chapters: Chapter one focuses on the background of the study, problem statement, objectives and justification of the study.

In chapter two, a range of literatures review were captured there to gather relevant information concerning E-banking. In chapter three, detail of methodology followed to achieve results was outlined. It includes the study design, sampling, sampling technique and data analysis. Chapter four contained results and discussion from the study supported with findings from other research works. Chapter five focuses on main findings, conclusions and recommendations of the study.



CHAPTER TWO

LITERATURE REVIEW

2.1 Defining Electronic banking

The definition of electronic banking (E-banking) varies amongst researchers partially because electronic banking refers to several types of services through which a bank's customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999).

Different authors have defined it in different ways based on their understanding of the application of electronic banking. According to Daniel (1999), electronic banking is electronic connection between the bank and customer in order to prepare, manage and control financial transactions. Sathye (1999) also asserted that electronic banking can be defined as a variety of the following platforms: (a) Internet banking (or online banking), (b) telephone banking, (c) television-based banking, (d) mobile phone banking, and (e) PC banking (or offline banking). In the opinion of Daniel (1999), E-banking is online banking (or Internet banking) which allows customers to conduct financial transactions on a secure website operated by their retail or virtual bank, credit union or building society. This implies that E-banking is a service that allows an account holder to obtain account information and manage certain banking transactions through a personal computer via the financial institution web site on the internet.

For many consumers, electronic banking means 24-hour access to cash through an Automated Teller Machine (ATM) or Direct Deposit of pay checks into checking or savings accounts (FTC, 2006). But electronic banking now involves many different types of transactions.

Electronic banking, also known as Electronic Funds Transfer (EFT), is simply the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash. You can use electronic funds transfer to:

- Have your salary deposited directly into your bank or credit union account.
- Withdraw money from your account from an ATM machine with a personal identification number (PIN), at your convenience, day or night.
- Instruct your bank or credit union to automatically pay certain monthly bills from your account, such as your auto loan or your mortgage payment.
- Have the bank or credit union transfer funds each month from your account to your mutual fund account.
- Have your government social security benefits cheque or your tax refund deposited directly into your account.
- Buy groceries, gasoline and other purchases at the point-of-sale, using a cheque card rather than cash, credit or a personal check.
- Use your computer and personal finance software to coordinate your total personal financial management process, integrating data and activities related to your income, spending, saving, investing, recordkeeping, bill-paying and taxes, along with basic financial analysis and decision making.

2.2 Importance of E-banking

Electronic banking systems provided easy access to banking services. The interaction between user and bank has been substantially improved by deploying ATMs, Internet banking, and more recently, mobile banking (Claessens et al. 2002).

Electronic banking (E-banking) reduces the transaction costs of banking for both Small and Medium Enterprises (SMEs) and banks. SMEs need not visit banks for banking transactions, providing round the clock services (Cheng, 2006).

Customers prefer E-banking for conveniences, speed, round the clock services and access to the account from any parts of the world (Cheng, 2006). E-banking offers benefits to banks as well. Banks can benefit from lower transaction costs as E-banking requires less paper work, less staffs and physical branches (Cheng, 2006). E-banking leads to higher level of customers' satisfaction and retention (Poatoglu & Ekin, 2001). E-banking reduces loan processing time as borrowers loan application can be viewed by loan processing and loan approval authority simultaneously (Smith & Rupp, 2003). Typically, loan applications received at branch level and send to head office for approval. This documents transfer to and from branch to head office consume much time and delay loan sanction period (Riyadh et al., 2009).

The benefits of E-banking identified from the current literature are classified in two main categories - tangible and intangible. Table 1 presents the key benefits as described in the literature.

Table 1: Key benefits of E-banking

| Benefits | Research/literature |
|---|--|
| Tangible benefits | |
| Business efficiency | (Fraser et al. 2000; Lee 2001; Riggins, 1999) |
| Increased automation of processes | (Fraser et al. 2000; Dan et al, 2001). |
| Transformation of traditional market chain | (Fraser et al. 2000) . |
| Retained and expanded customer base | (Fraser et al. 2000; Rahul, Biju and Abraham 2001; Turban, et al, 2000). |
| Reduced operation costs | (Kent and Lee, 1999; Grover and Ramanlal, 2000; Kare-Silver, 1998; Fergusson, 1999). |
| Acquisition of a niche market | (Riggins, 1999; Rahul et al. 2001) |
| Intangible Benefits | |
| Enhancing well-being and education of customers | (Whinston et al. 1997; Lee 2001) |
| Consumer loyalty | (Lee 2001; Hoffman et al. 1999; Coulson, 1999) |
| Competitive advantage | (Kalakota et al. 1999; Hoffman et al. 1999; Straub, 2000; Kare-Silver, 1998) |
| Convenient Banking | (Hannon, 1998; Winner, 1997) |

Source: (Kuzic et al., 2002)

2.3 Types of E-banking

Over the past years, two types of electronic banking services have emerged in the banking sector; they are internet and phone banking (Adriana, 2006)

2.3.1 Internet banking

Internet banking is a new age banking concept. It uses technology and brings the bank closer to the customer. Internet banking refers to systems that enable bank customers to get access to their accounts and general information on bank products and services through the use of bank's website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations (Thulani et al, 2009). For those that have access to the internet and a computer all you need to do is proceed to your banks website and login. From there you have access to all of your accounts that you have at that bank. Transfer funds between your accounts with ease. You can also use online banking to see how much money you have in your accounts and where the money you have spent has gone. Broadly, the levels of banking services offered through internet can be categorized in to three types:

1. The Basic Level Service is the banks' websites which disseminate information on different products and services offered to customers and members of public in general. It may receive and reply to customers' queries through e-mail.
2. In the next level are Simple Transactional Websites which allows customers to submit their instructions, applications for different services, queries on their account balances, etc, but do not permit any fund-based transactions on their accounts.

3. The third level of Internet banking services are offered by Fully Transactional Websites which allows the customers to operate on their accounts for transfer of funds, payment of different bills, subscribing to other products of the bank and to transact purchase and sale of securities.

The above forms of Internet banking services are offered by traditional banks as an additional method of serving the customer. There are also banks that deliver banking services primarily through Internet or other electronic delivery channels. Some of these banks are known as ‘virtual’ banks or ‘Internet- only’ banks and may not have any physical presence in a country despite offering different banking services (Adriana, 2006).

2.3.2 Advantages of Internet Banking

1. It removes the traditional geographical barriers as it could reach out to customers of different countries / legal jurisdiction.
2. It has added a new dimension to different kinds of risks traditionally associated with banking, heightening some of them and throwing new risk control challenges.
3. It poses a strategic risk of loss of business to those banks who do not respond in time, to this new technology, being the efficient and cost effective delivery mechanism of banking services.
4. A new form of competition has emerged both from the existing players and new players of the market who are not strictly banks.
5. Another advantage of Internet banking is that it is cost-effective. Thousands of customers can be dealt with at once. There is no need to have too many clerks and cashiers. The administrative work gets reduced drastically with Internet

banking. Expenditures on paper slips, forms and even bank stationery have gone down, which helps raise the profit margin of the bank by a surprisingly large number.

2.3.3 Telephone Banking (Telebanking)

Telebanking (telephone banking) can be considered as a form of remote or virtual banking, which is essentially the delivery of branch financial services via telecommunication devices where the bank customers can perform retail banking transactions by dialling a touch-tone telephone or mobile communication unit, which is connected to an automated system of the bank by utilizing Automated Voice Response (AVR) technology” (Balachandher et al., 2001). It allows consumers to phone their financial institutions with instructions to pay certain bills or to transfer funds between accounts (FTC, 2006).

2.4 Delivery channels of E-banking

E- Banking services are delivered through various electronic means collectively called electronic delivery channels. Electronic Banking is really not one technology, but an attempt to merge several different technologies. Each of these evolved in different ways, but in recent years different groups and industries have recognized the importance of working together (Abor, 2004). The various delivering channels for E-banking are discussed as follows:

2.4.1 Automated Teller Machines (ATMs)

ATM is also called 24-hour tellers are electronic terminals which give consumers the opportunity to bank at almost any time (FTC, 2006). ATM banking is one of the earliest and widely adopted retail E-banking services in Kenya (Nyangosi et al. 2009).

It is described as a combination of a computer terminal, record-keeping system and cash vault in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank's computerized records 24 hours a day (Rose, 1999).

To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number. Once the customer login, access to transactions are displayed on the screen. It offers several retail banking services to customers. They are mostly located outside of banks, and are also found at airports, malls, and places far away from the home bank of customers. They were introduced first to function as cash dispensing machines (Abor, 2004). Some ATMs charge a usage fee for this service, with a higher fee for consumers who do not have an account at their institution. If a fee is charged, it must be revealed on the terminal screen or on a sign next to the screen Rose (1999).

ATM services have a lot of advantages. They include increase in productivity during banking hours if the service is available in addition to the human tellers. They are cost-effective way of achieving higher productivity per period of time. According to Rose (1999), an ATM transaction is an average of about 6,400 per month compared to 4,300 for human tellers. Furthermore, it saves customers time in service delivery as alternative to queuing in bank halls, customers can invest such time saved into other productive activities (Abor, 2004). In addition, ATMs continue to serve customers while human tellers in the banking hall have stopped work, thereby increasing productivity for the banks.

2.4.2 Personal Computer Banking Services

PC-Banking is a service which allows the bank's customers to access information about their accounts via a proprietary network, usually with the help of proprietary software installed on their personal computer". Once access is gained, the customer can perform a lot of retail banking functions. The increasing awareness of the importance of computer literacy has resulted in increasing the use of personal computers. This certainly supports the growth of PC banking which virtually establishes a branch in the customers' home or office, and offers 24-hour service, seven days a week. It also has the benefits of Telephone Banking and ATMs (Abor, 2004).

It offers consumers the convenience of conducting many banking transactions electronically using a personal computer. Consumers can view their account balances, request transfers between accounts and pay bills electronically from home

2.4.3 Electronic Funds Transfer at Point of Sale (EFTPoS)

An Electronic Funds Transfer at the Point of Sale is an on-line system that allows customers to transfer funds instantaneously from their bank accounts to merchant accounts when making purchases (at purchase points). A POS uses a debit card to activate an Electronic Fund Transfer Process (Chorafas, 1988). Point-of-Sale Transfer Terminals allow consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference, the money for the purchase is transferred immediately from your account to the store's account.

Increased banking productivity results from the use of EFTPoS to service customers shopping payment requirements instead of clerical duties in handling cheques and

cash withdrawals for shopping. Furthermore, the system continues after banking hours, hence continual productivity for the bank even after banking hours. It also saves customers time and energy in getting to bank branches or ATMs for cash withdrawals which can be harnessed into other productive activities (Abor, 2004).

Some banks issued international cards (such as Visa, MasterCard etc.) to their customers. Such cards can be used wherever accepted, and payment on the cards can only be done through an ordinary domiciliary account of the cardholder, or any other account that may be permitted. Some of these cards are credit or debit cards.

2.4.4 Credit Cards

A credit card is a small plastic card issued to users as a system of payment. It allows its holder to buy goods and services based on the holder's promise to pay for these goods and services. The issuer of the card creates a revolving account and grants a line of credit to the consumer (or the user) from which the user can borrow money for payment to a merchant or as a cash advance to the user (Mavri & Ioannou, 2006). A credit card is different from a debit card in that it does not withdraw money from the users account after every transaction. The issuer lends money to the consumer to be paid to the merchant. Holders of a valid credit card have the authorization to purchase goods and services up to a predetermined amount, called a credit limit. The vendor receives essential credit card information from the cardholder, the bank issuing the card actually reimburses the vendor, and eventually the cardholder repays the bank through regular monthly payments. If the entire balance is not paid in full, the credit card issuer can legally charge interest fees on the unpaid portion.

2.4.5 Debit Cards

A debit card (also known as a bank card or cheque card) is a plastic card that provides an alternative payment method to cash when making purchases. Functionally, it can be called an electronic cheque, as the funds are withdrawn directly from either the bank account or from the remaining balance on the card. In some cases, the cards are designed exclusively for use on the internet, and so there is no physical card (Mavri & Ioannou, 2006).

In many countries the use of debit cards has become so widespread that their volume of use has overtaken or entirely replaced the cheque and, in some instances, cash transactions. Like credit cards, debit cards are used widely for telephone and Internet purchases and, unlike credit cards, the funds are transferred immediately from the bearer's bank account instead of having the bearer pay back the money at a later date. Debit cards may also allow for instant withdrawal of cash, acting as the ATM card for withdrawing cash and as a check guarantee card.

2.5 Characteristics of E-banking

E-banking includes the systems that enable bank customers to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. Customers access E-banking services using an intelligent electronic device, such as a Personal Computer (PC), Personal Digital Assistant (PDA), Automated Teller Machine (ATM), kiosk, or telephone (Ibrahim et al 2006).

2.6 E-banking in Ghanaian Banks

The banking industry in Ghana is undergoing rapid growth with the liberalization of the financial sector by the Bank of Ghana and positive economic environment (Adams & Lamptey, 2009). And because of this, most banks are catching up with increasingly technologies by bringing more innovative concepts into the banking sector. One of key concept is the introduction of E-banking, which involves 24-hour service provision to their clients. In Ghana, the earliest forms of electronic and communications technologies used were mainly office automation devices. Telephones, telex and facsimile were employed to speed up and make more efficient, the process of servicing clients. For decades, they remained the main information and communication technologies used for transacting bank business (Abor, 2004).

Technological innovation coupled with availability of internet services in Ghana results in banks in Ghana networking their branches and provision of service products. Because of competition almost all banks in Ghana are now providing various forms of E-banking services. For instance, a report by Abor (2010) showed that Barclays Bank (Ghana) Limited and Standard Chartered Bank (Ghana.) Limited pioneered this very important electronic novelty, which changed the banking landscape in the country.

Banks in Ghana have launched many commercials and a range of products and services. The Trust Bank Ghana, in 1995 installed the first ATM. After that, the other major banks began their ATM networks at competitive positions. Ghana Commercial Bank started its ATM offering in 2001 in collaboration with Agricultural Development Bank (Abor, 2004). In Ghana, ATM is the extensive and most widely utilized E- banking services. The ATM has been the most successful delivery medium

for consumer banking in this county. Customers consider it as important in their choice of banks, and banks that delayed the implementation of their ATM systems, have suffered irreparably.ATMs have been able to entrench the one-branch philosophy in this county, by being networked, people do not necessarily have to go to their branch to do some banking (Abor, 2004).

Various E- banking cards have been introduced by Ghanaian Banks. For instance, the first major cash card is a product of Social Security Bank, now Socete Generale SSB, introduced in May 1997 in this country. Furthermore, in the earlier part of year 2001 Standard Chartered Bank launched the first ever debit card in this country. A consortium of three (3) banks (Ecobank, Cal Merchant Bank and The Trust Bank) introduced a further development in electronic cards in November 2001, called 'E-Card'. This card is online in real time, so anytime a client uses the card, or changes occur in their account balance, their card automatically reflects the change (Abor 2010).

2.6.1 E-banking AT SG-SSB

SG-SSB is one of the banks in Ghana. The name "SG-SSB" stands for "*Société Générale - Social Security Bank*"; the bank is part of the Société Générale banking group. It has its headquarters in Accra and its stock is listed on the Ghana Stock Exchange. It is a component of the GSE All-Share Index. According to its website it is the 4th largest bank in Ghana and has 38 networked branches in Ghana (en.wikipedia.org/wiki/SG-SSB accessed on 5/4/2011). The mission of the bank is” to create the preferred banking institution, which employs professionalism, teamwork and innovation to provide quality products and services that best satisfy the needs of

our customers” (SG-SSB, 2007). The Bank operates in the Retail, Corporate and Small and Medium scale Enterprise banking markets. The bank is actively investing in internet banking.

The bank markets the "Sika" program including the Sikamail,sikanet, ATM debit card and the Sikatext Initiative Program which are E-banking products and services.

SG-SSB was the first bank to introduce the following products in the country:

- Doorstep Banking: the physical collection of cash at the doorstep of corporate customers.
- Special Farmers Loan: whereby Cocoa farmers are given pre-harvest financing.
- Consumer Credit Loan Scheme: for salaried workers
- Sika card: the first electronic smart card in Ghana
- Sikatel: the first banking access by phone in Ghana
- Sikatext: Banking information by SMS
- Sikamail an electronic statement service which makes your account just a click.
- Sikanet an internet banking service which puts you online to your account.

SG-SSB offered various forms of E-services and products which are available throughout Ghana. However, among the facilities, ATM is the commonest and the mostly patronized one. It also offers a wide-range of smart cards; The SG-SSB Visa Cards. The highly secured debit cards can be conveniently used at both the ATMs and merchant points and allows the cardholders to make transactions with ease. The cards allow a 24hour, 7 days a week access to the account. The SG-SSB Visa Cards

are the only cards on the market with an electronic chip that allows usage on both ATMs and at merchant outlets. They can also be used at all Visa branded ATMs in the country, making money available to clients at all time.

The Privilege Card, a Visa Gold card, is top of the range of cards offered. The Priority Card for the Priority Customer is next in line. These two cards have additional international features allowing use in Ghana and abroad. The other two cards available at SG-SSB are the Express card for the Current account holders and the Saver card for the Savings Account holders are mainstream domestic cards. In addition there is the E-zwich smart card which is a new and secured way of paying for goods and services throughout the country based on biometric (fingerprint) identification (SG-SSB, 2007).

2.6.2 Sikamail

Sikamail is a service which enables customers to receive soft copies of their statements of Account through e-mail. Among some of the features of sikamail are:

- Listing of all transactions and balance for the period requested.
- The statement of Account can be delivered in P D F (Printable Document Format) or Excel Fort.
- Customers can choose to receive their statements of Account daily, weekly, and monthly
- Customers can also choose the day of the week to receive their statements.
- Customers can access softcopy of periodic account statement from any where provided they can access their e-mail. Customers need not visit or phone the

branch for periodic account statement request. It is very convenient and easy to use.

2.6.3 SIKATEL

SG-SSB launched the sikatel service in September 2002 as a medium for doing business by telephone. The service was however free. The service covered enquiries, customer care and telemarketing particularly on financial issues pertaining to the Bank and the industry as a whole.

The system was basically a call centre manned by SG-SSB staff into which customers and non-customers alike could call. SIKATEL with the addition of an Interactive Voice Response (IVR) system, to provide 24-hour customer interactive with the Bank via telephone, the IVR has been developed, both in English and Twi. Customers can access the information they need by selecting it through the menus and submenus. The customer will navigate through the system using the phone keys to get the requested information.

The IVR is an interactive automatic answering machine. Customers can access the information they need by selecting it through the menus and submenu. The customer will navigated through the system using phone keys to get the requested information. It is easy to use. In order to give access to the largest number of customers, the IVR has been developed both in English and Twi.

2.6.4 SIKATEXT SHORT MESSAGE SERVICE(SMS) Baking

This is a SMS banking service, which makes your SG-SSB account at your figure tip. From a cell phone, at any time, customers can perform a host of

function. So there's not a moment customers are not in control of their finances. Sikatext is easy to use and give instant access to information about your account via SMS

All you need is your cell phone, wherever you might be with sikatext. Sikatex can help check on the balance of your current and saving account.

Sikanet & cadinet (internet banking)

This is an internet banking service, which puts a customer on line to SG-SSB account. From their PC, at any time, customers can perform a host of functions. So there's not a moment account holders are not in control of your finances

2.7 Challenges of E-banking

Banking organisations have been delivering electronic services to consumers and businesses remotely for years. Electronic funds transfer, including small payments and corporate cash management systems, as well as publicly accessible automated machines for currency withdrawal and retail account management, are global fixtures. However, the increased world-wide acceptance of the Internet as a delivery channel for banking products and services provides new business opportunities for banks as well as service benefits for their customers (BCBS, 2001). Notwithstanding the significant benefits of E-banking and its capabilities, it carries risks and challenges as which are recognised and need to be managed by banking institutions in a prudent manner.

The speed of change relating to technological and customer service innovation in E-banking is unprecedented. Historically, new banking applications were implemented

over relatively long periods of time and only after in-depth testing. Today, however, banks are experiencing competitive pressure to roll out new business applications in very compressed time frames, often only a few months from concept to production. This competition intensifies the management challenge to ensure that adequate strategic assessment, risk analysis and security reviews are conducted prior to implementing new e-banking applications (BCBS, 2001).

E-banking increases banks' dependence on information technology, thereby increasing the technical complexity of many operational and security issues and furthering a trend towards more partnerships, alliances and outsourcing arrangements with third parties, many of whom are **unregulated**. This development has been leading to the creation of new business models involving banks and non bank entities, such as Internet service providers, **telecommunication companies and other** technology firms (BCBS, 2001).

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

2.8 E-Banking Fraud

Convenience is the key reason of why millions of people are opting out of traditional banking for online banking. Banks also enjoy providing the option of online banking because they can save on operating costs. Most internet banking fraud occurs in a two-step process. Firstly, the offender must get their hands on the customer's account information, like their username and password. Secondly, the offender will use that information to move his victim's money to another account or withdraw it to make fraudulent purchases. For the first step, offenders often employ one of the many popular fraud schemes to obtain personal information. These fraud schemes include, but are not limited to:

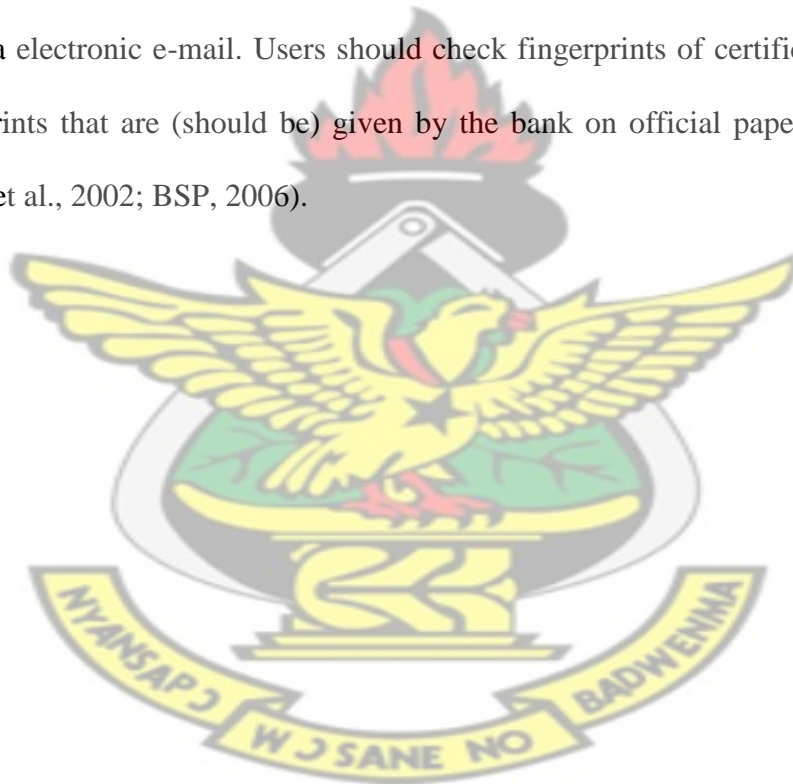
- "Over the shoulder looking" scheme: involves the offender observing his potential victim making financial transactions and recording the personal information used in the transaction.
- "Phishing" scheme: stems from the two words "password" and "fishing." It entails sending e-mail scams and mail supposedly from the consumer's bank as a way to obtain the consumer's personal information, social insurance number, and in this case their online banking username and password (Kaleem & Ahmed, 2008).

2.9 Security Measures to Avoid E-banking Fraud

Kaleem and Ahmad (2008) argued that in undertaken E-banking transactions, customers are always concerned about hackers and anti-social elements. Hacking enables the unethical hackers to penetrate the accounts of online bankers, and spend their money. Availability of confidential information which is just secured by a user name and password makes it vulnerable to such threats. Most of the banks try to make their sites

secured by implementing latest network security software. Learn to keep your cards, documents and passwords safe, and monitor your accounts to safeguard yourself from bank fraud committed through identity theft. Most importantly, find out how to protect your personal information to avoid identity theft from happening to you (BSP, 2006).

E-bankers should install virus scanners and keep them and their systems up-to- date especially PC banking. They should avoid practices that easily lead to security hazards in particular they should not start up arbitrary executable attachments received via electronic e-mail. Users should check fingerprints of certificates against the fingerprints that are (should be) given by the bank on official paper documents (Claessens et al., 2002; BSP, 2006).



CHAPTER THREE

METHODOLOGY

This chapter discusses the processes and techniques used in carrying out the study. It also gives a description of the respondents including information on the study population, the number of respondents and how they were selected. It also provides an outline of research design and the instruments for data collection. The methods adopted in the administration of the research instrument, data collection procedure, data analysis and measures used to ensure validity of the instrument used.

3.1 Study Area

The study was carried out in three selected branches of SG-SSB branches in Accra namely, Ring road Central, Accra main and Kaneshie branches. These branches were chosen because various E-banking facilities or products including ATM services, Sikanet, Sikamail etc are available. Furthermore, they are closer to the researcher and access to information is also easy. The banking service has different departments which rely on the services of E-banking in a way to carry out their jobs.

3.2 Study Design

Research design is usually a plan or blue print which specifies how data relating to a given problem should be collected and analysed. It provides the procedural outlines for the conduct of any investigation.

In this study, the researcher adopted a case study approach because it provided in-depth information to address the objectives. In all, 90 questionnaire were administered to the interviewees from the selected branches of the bank and customers to solicit

information concerning the E-banking. Part of the information was also gathered from reports in the branches of the bank concerning E-banking services.

3.3 Target Population

In research methods, population is the entire aggregation of items from which samples can be drawn. The population of the present study consist of selected customers, the head office, Kaneshie branch, and Accra main branches.

3.4 Sampling and Sampling Technique

Thirty (30) representative respondents were interviewed in each selected branch. They consist of IT staff (5), other banking staff (5) and customers of E-banking facilities (20). These categories of respondents were interviewed at the three branches making a total sample of 90. The questionnaires were self administered to the respondents. Purposive sampling technique was used for staff in the IT department of the banks whiles simple random sampling technique was employed for other respondents. An informal interview was also conducted with some officers to gather information needed for the study.

3.5 Sources of Data

The study used data from both primary and secondary sources. Primary sources of data included questionnaire administered to selected customers and staff of the Head Office, Kaneshie branch, and Accra main branch. The questionnaire was developed in consultation with the supervisor. The items were subsequently edited and vigilantly selected bearing in mind the research questions.

A total of 90 respondents out of a sample of 90 employees completed and returned their questionnaires. A copy of the questionnaire is attached as Appendix 1.

The secondary sources of data constituted data gathered from world wide web (www), SG-SSB corporate plan, literature on E-banking, bulletins, in-house newsletters, books and journals, and unpublished theses.

3.6 Data collection instruments

The researcher relied on primary data sources. The primary sources involved self-administered questionnaires. The questionnaire was used because the researcher considered it to be more convenient as respondents could answer at their convenience (See Appendix 1). The questionnaire was developed by the researcher based on the research questions and the literature. Open-ended and closed – ended questions were used. The questionnaire began with an introductory statement, which specified the purpose of the research as purely academic. Respondents were encouraged to be objective in their responses since they were assured of confidentiality.

3.7 Data collection procedure

The consent of all respondents was sought before they were included in the study. At each staff category, convenient sampling was used to select respondents for the study. Each respondent was made to answer each question and then the appropriate answer ticked. Where the researcher is not sure of an answer, the researcher probed until answer provided is consistent. This procedure was repeated for each junior and senior staff respondents. It took about six weeks to administer all questionnaires. To clear any doubts in the minds of respondents the purpose of the study was made known to

respondents. Clarification was given by the researcher to nearly all the junior staff who participated in the study.

3.8 Data Analysis

Data from the structured self administered questionnaire was properly organized through data coding, cleaning and entering. Data processing was by statistical package for social sciences (SPSS). Descriptive statistics by percentages, figures and tables were generated from the software to establish relationship among variables. The relevant information was obtained in a standard form using tables, frequencies and percentages to analyze and interpret the information. The results were finally presented in charts and tables. These were used to ensure easy understanding of the analyses.

3.9 Limitations

Collection of data in Ghana is very difficult. Problems such as the swearing of an oath of secrecy in the bank, indifference on the part of interviewees and respondents limited the objectives of the study. The absence or inaccessibility of reliable records and reports on SG-SSB E-banking data for the past years also limited the research investigation.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter presents the results and discussions of prospects and challenges of electronic banking in Ghana – a case study of SG-SSB, Accra. In all ninety (90) questionnaire were administered to both customers and employees of SG-SSB, Accra.

4.1 Demographics of respondents

The study was carried out in three SG-SSB branches in Accra namely Ring Road Central, Accra Main and Kaneshie. The number of people who took part in the survey were ninety (90) of which 81.1% were males whiles 18.9% were females. The educational levels of respondents who took part in the survey vary. Table 2 shows respondent's educational level distribution. The results indicated that all respondents had some level of education and know the essence of banking. There were no illiterates among respondents which might be due to the fact illiterates do not prefer banking.

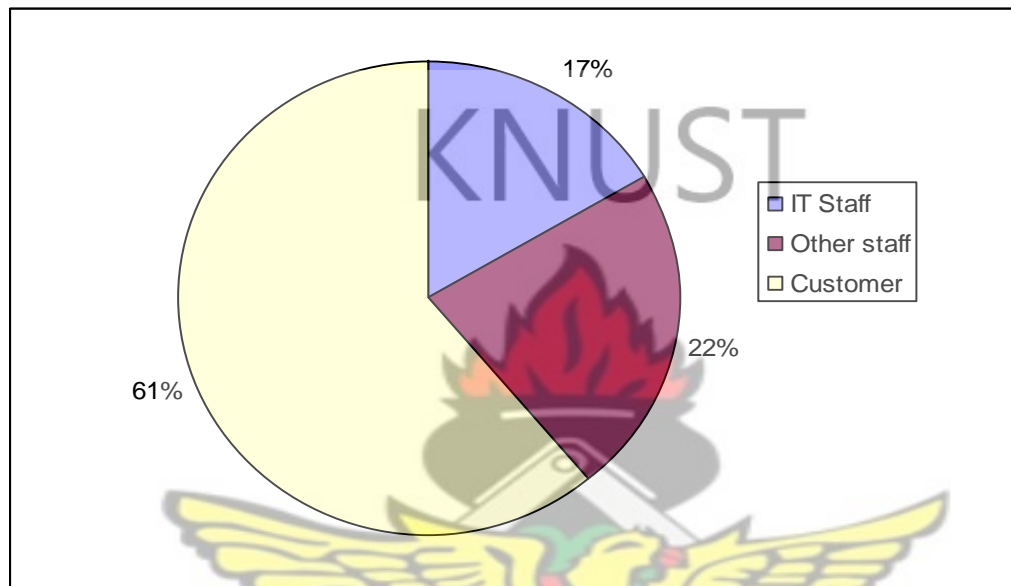
Table 2: Educational level of respondents

| | | Frequency | Percent |
|-------|--------------------------|-----------|--------------|
| Valid | University graduate | 53 | 58.9 |
| | Professional certificate | 11 | 12.2 |
| | Polytechnic / HND | 20 | 22.2 |
| | Vocational / Technical | 3 | 3.3 |
| | Secondary school / SSS | 3 | 3.3 |
| | Total | 90 | 100.0 |

Source: Field Survey, 2011

The respondents were drawn from different categories. They included sampled staffs of the bank and sampled customers. However, customers formed core (61%) of respondents (Figure 1). This enabled the study to have diverse and in-depth information regarding E-banking.

Figure 1: Distribution of categories of respondents

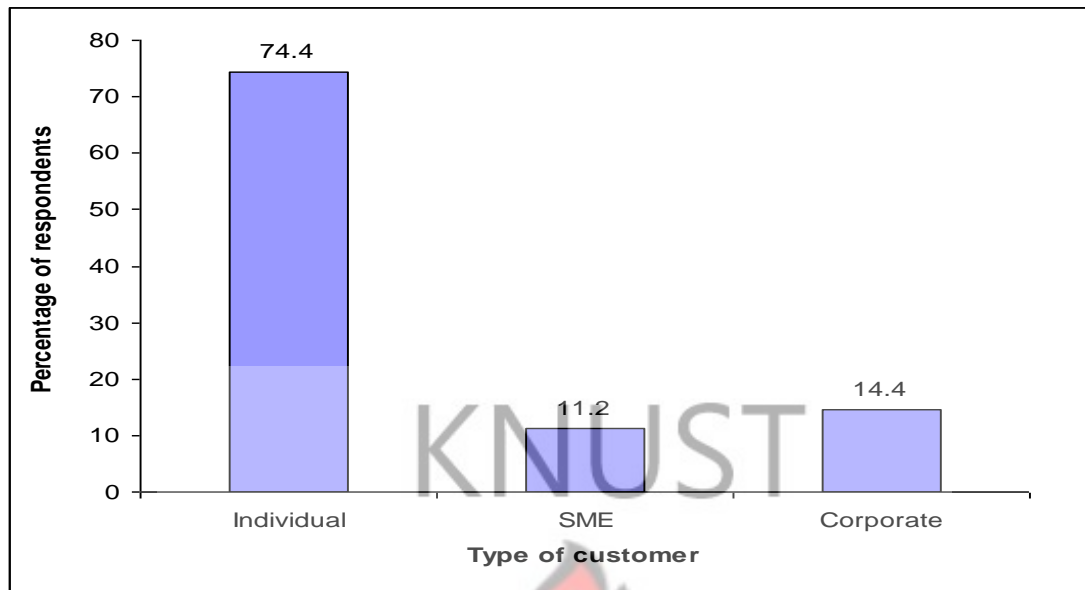


Source: Field Survey, 2011

4.2 Types of customers at SG-SSB

Figure 2 shows that all respondents (100%) were banking with SG-SSB with different customer types. The results shows that majority (74.4%) of the respondents were individual customers, whilst SME and Corporate customers represents 11.2% and 14.4% respectively. Individual customers have different E-banking products that they were willing to share any information with the researcher.

Figure 2: Types of customers at SG-SSB

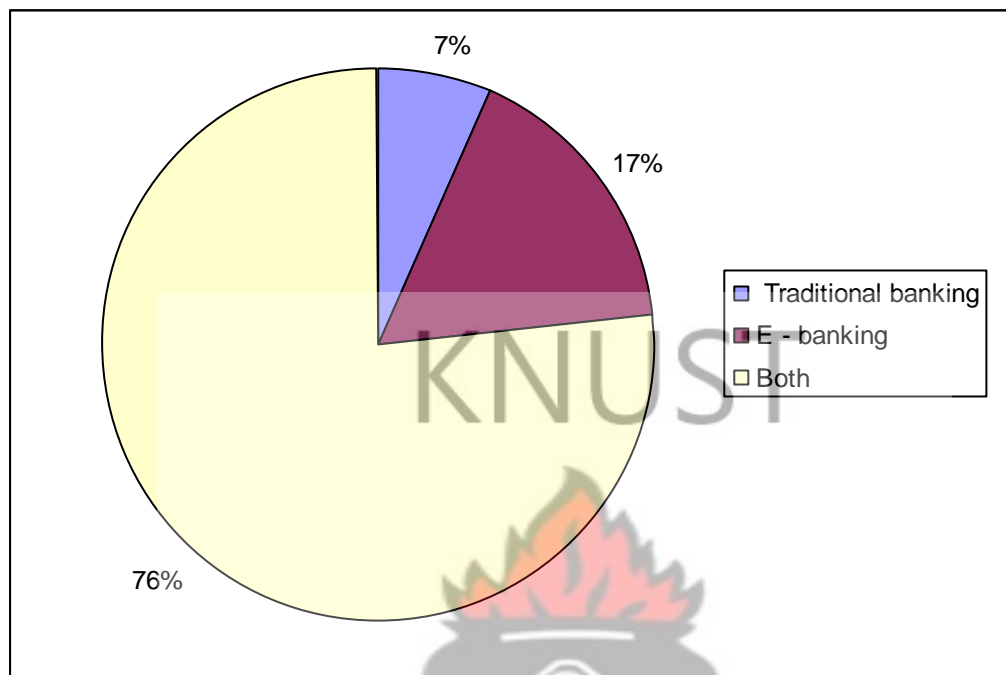


Source: Field Survey, 2011

4.3 Forms of Banking Services in Ghana

Generally, there are two main forms of banking services in Ghana namely, traditional and E-banking services. The results of the study in Figure 3 indicated that majority of the respondents (76%) knew both form of banking services in Ghana. The results further indicated that 7% of the respondents are aware of only the traditional banking services, while 17% also revealed that they are aware of only the E-banking services. A study by Abor (2004) indicated that introduction of E-banking services in Ghana begun in the 1980s with proliferation of personal computers. Barclays Bank (Ghana) Limited and Standard Chartered Bank (Ghana) Limited pioneered this very important electronic novelty, which changed the banking landscape in the country.

Figure 3: Distribution of respondents concerning forms of banking services in Ghana



Source: Field Survey, 2011

4.4 Respondents' views on E-banking

The study sought to find out how respondents' perceived E-banking. The results presented in figure 4 revealed that majority of respondents (96.7%) have heard of E-banking whiles 3.3% said they were not aware of any banking services called E-banking. Those who heard of E-banking understood it in different ways. According to most respondents (53.3.1%) they explained E-banking as the use of internet and electronic media to bank (Table 3). E-banking is explained as conducting financial transactions on a secure website operated by a retail or virtual bank, credit union or building society (en.wikipedia.org/wiki/Electronic_banking accessed on 30/3/2011). Explanation by respondents conforms to the general web definition.

The term electronic banking means different things to different people. Different authors have defined it in different ways based on their understanding of the application of electronic banking. Also, 27.8% of the respondents understood “E-banking” to mean electronic banking, while 18.9% of respondents understood it to mean virtual banking service provision system.

Table 3: Respondents’ view of E-banking

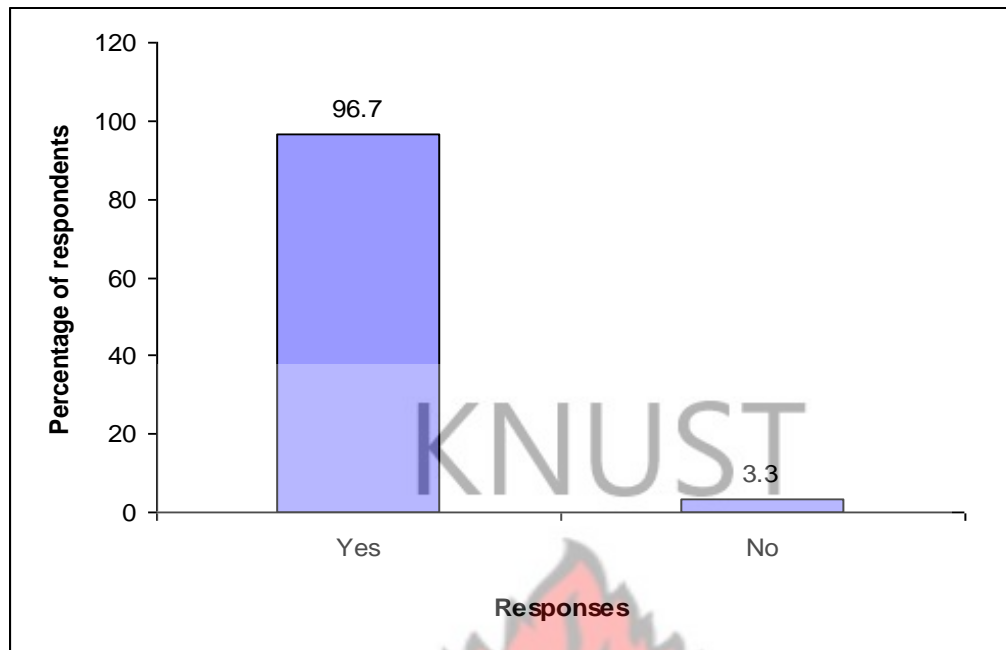
| | | Frequency | Percent |
|-------|---|-----------|---------------|
| Valid | Use internet and electronic media to bank | 48 | 53.3 |
| | Virtual banking service provision system | 17 | 18.9 |
| | Electronic banking | 25 | 27.8 |
| | Total | 90 | 100.00 |

Source: Field Survey, 2011

4.5 Respondents having access to E-banking

Results in Figure 4 indicate that 96.7% of respondents have access E-banking facilities, while 3.3% Figure 4 indicated that they did not have access to E-banking facilities. This implies that information gathered were reliable since they have access to the E-banking facilities.

Figure 4: Respondents having access to E-banking facilities



Field Survey, 2011

4.6 Places respondents use E- banking facilities

Respondents have E-banking products from different banks including SG-SSB. This is because they were operating accounts with other banks. However, most respondents (78.9%) were only SG-SSB customers and use E-banking products from the bank (Table 4). Another 96.7% figure 4 respondents indicated they have E-banking products from SG-SSB, while 3.3% stated that they do not have any of such facilities. Their reasons being that they do not have any E-banking products because they presumed their operations would be difficult. It would also allow other people to access their accounts easily.

Table 4: Places respondents use E-banking

| | | Frequency | Percent |
|-------|----------------------------------|-----------|--------------|
| Valid | SG-SSB | 71 | 78.9 |
| | SG-SSB + Barclays | 7 | 7.8 |
| | SG-SSB + GCB | 4 | 4.4 |
| | SG-SSB + Prudential Bank | 2 | 2.3 |
| | SG-SSB + Ecobank + Standchart | 6 | 6.6 |
| | Total | 90 | 100.0 |

Source: Field Survey, 2011

4.7 Types of E-banking facility used by respondents

Table 4 indicates that respondents who use E-banking facilities have different types of E-banking products from SG-SSB. The data reveals that 41.1% use only ATM cards (Table 5). ATM is the most widely used E-banking products within SG-SSB. ATMs are able to provide a wide range of services, such as making deposits, funds transfer between two or more accounts and bill payments (Abor, 2004). However, significant proportion of respondents (22.2%) also uses combinations of E-banking products from SG-SSB. They included ATM, Sikanet, Sikamail and Sikatext.

Table 5: Types of E-banking facility used by respondents

| | | Frequency | Percent |
|-------|-------------------------------------|-----------|------------|
| Valid | ATM | 37 | 41.1 |
| | Sikanet | 7 | 7.8 |
| | Sikatext | 4 | 4.4 |
| | ATM + Sikanet + Sikamail + Sikatext | 20 | 22.2 |
| | ATM + Sikatext | 8 | 8.9 |
| | Sikamail | 6 | 6.7 |
| | Sikamail + Sikatext | 3 | 3.3 |
| | ATM + Sikamail | 5 | 5.6 |
| | Total | 90 | 100 |

Source: Field Survey, 2011

4.8 Reasons for using E-banking facilities

Respondents of this study indicated their reasons for using E-banking products in Table 6. The dominant reason was easy access to money and account information (30%). Avoidance of long queues which are associated with the traditional banking was actually eradicated by the introduction of E-banking products. Customers indicated that using E-banking products is very convenient and fast; it makes them save a lot of time for other businesses (Table 6). This result compares favourably by Liaoa and Cheung (2002) in Singapore, who also pointed out that individuals can E-bank over the internet at any time in any properly equipped location, the quality attribute of time and location convenience is likely to be significant in differentiating it from traditional retail banking.

Table 6: Reasons for using E-banking products

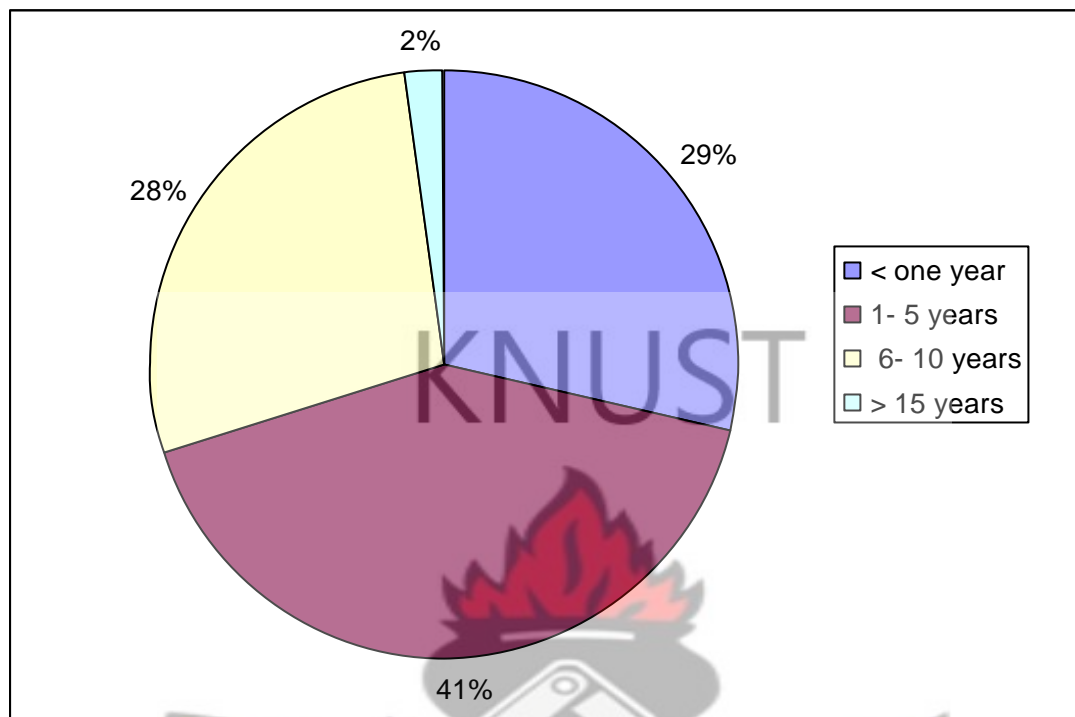
| | | Frequency | Percent |
|-------|--|-----------|--------------|
| Valid | Easy access to funds 24 hrs | 13 | 14.4 |
| | Easy access to account information | 17 | 18.9 |
| | Easy access to funds and account information | 27 | 30 |
| | Makes transactions very fast | 14 | 15.6 |
| | Convenient and saves time | 19 | 21.1 |
| | Total | 90 | 100.0 |

Source: Field Survey, 2011

4.9 Introduction of E-banking in Ghana

Introduction of E-banking in Ghana begun twenty (20) years ago. The first major cash card is a product of Social Security Bank, now Socete Generale SSB, introduced in May 1997. This card, 'Sika Card' is a value card, onto which a cash amount is electronically loaded (Abor, 2004). During the early part of the introduction, it was offered to corporate clients only. For instance, the Trust Bank Ghana LTD in 1995 installed the first ATM. However, after customer education was done, more customers offered for these E-banking products. The study shows that majority of respondents (41%) started using E-banking products between the last 5 years (Figure 5). This may be due to the fact that, it was the last 5 years that awareness of E-banking has gone done well with most of the respondents.

Figure 5: Distribution of respondents concerning usage duration of E-banking products.



Source: Field Survey, 2011

4.10 Respondents Preference of E-banking products

Table 7 illustrates respondents' preference of E-banking products. Results presented indicate that most respondents (44.4%) prefer ATM facility out of the other E-banking products being offered at SG-SSB (Table 7). However, significant proportions of respondents also preferred combination of the E-banking products. This is because ATM is 24-hour teller electronic terminals which give consumers the opportunity to bank at almost any time. However, the ATM is located at vantage points and more often within the premises of SG-SSB. This is because customers saves time by moving to these ATM facilities, they use other E-banking products such as Sikatext to access account information on their phones. According to the survey, most respondents (47.8%) preferred E-banking because of their efficiency and user friendliness (Table 8). This might be due to the fact that operation of E-banking

products was not difficult. Most often, there are simple steps to follow with instructions being offered by the system and within some few seconds the information being access is retrieved.

Table 7: Preference of E-banking products

| | Frequency | Percent |
|----------------------------|-----------|--------------|
| Valid ATM | 40 | 44.4 |
| Sikanet | 7 | 7.8 |
| Sikertext | 4 | 4.4 |
| ATM and Sikertext | 11 | 12.2 |
| ATM + Sikamail | 19 | 21.1 |
| ATM + Sikamail + Sikertext | 3 | 3.3 |
| Sikamail + Sikatel | 3 | 3.3 |
| Sikamail | 3 | 3.3 |
| Total | 90 | 100.0 |

Source: Field Survey, 2011

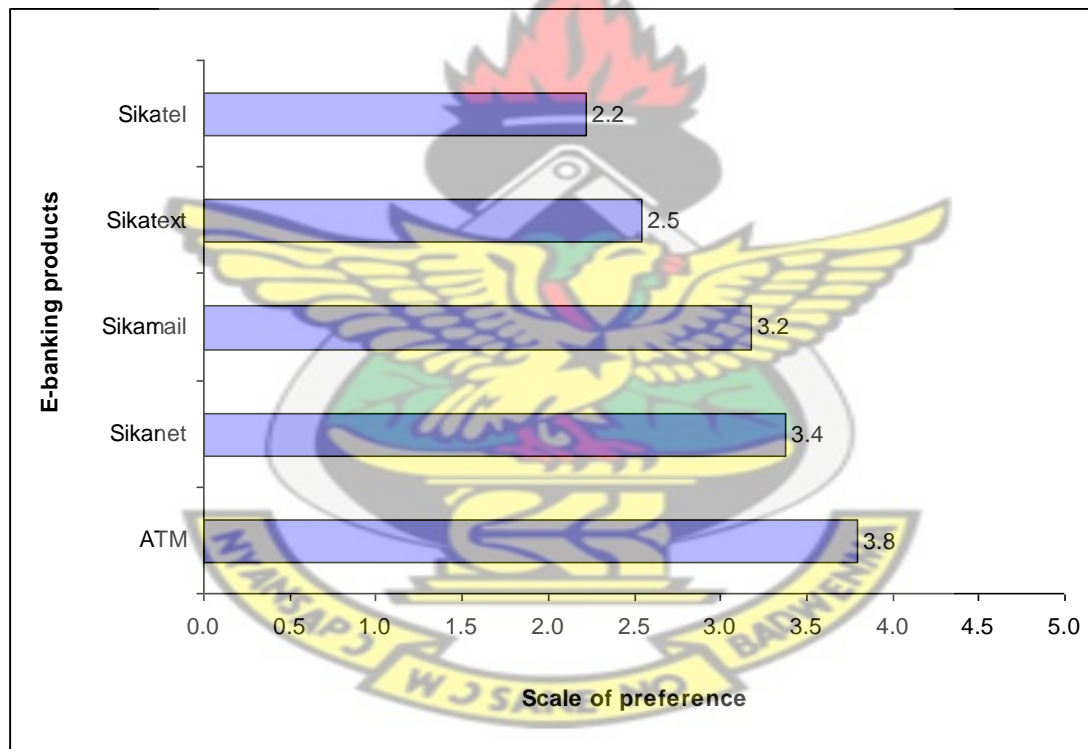
Table 8: Respondent's reasons for preference of their E-banking products

| | Frequency | Percent |
|------------------------------------|-----------|--------------|
| Valid Efficient and user friendly | 43 | 47.8 |
| Access to money anytime | 17 | 18.9 |
| Very fast in transacting business | 16 | 17.8 |
| Avoidance of long queues | 2 | 2.2 |
| Access to account details are easy | 12 | 13.3 |
| Total | 90 | 100.0 |

Field Survey, 2011

Preference of E-banking products was in the domain of the customers. On a scale of 1 to 5, with 1 being the lower rank and 5 being the higher rank, most respondents ranked ATM as the preferred E-banking product. ATM scored the highest rank with an average score of 3.8 (Figure 6). This clearly shows that out of the various E-banking products being offered in SG-SSB, customers prefer ATM usage relative to others. This is supported by similar study in Kenya showing that the trend of ATM banking grows over a period of 5 years, between the years 2002 and 2007, as evidenced by the increase in the number of ATMs (Gikandi and Bloor, 2010).

Figure 6: Ranking of E-banking products by preference



Source: Field Survey, 2011

4.11 Advantages of E-banking over traditional banking

E-banking has several advantages over the traditional way of banking. The dominant advantage (32.2%) from the study was E-banking saves time (Table 9). This implies that customers spend less time banking at SG-SSB. Other pronounced advantages of E-banking are that it is cost-effective. Thousands of customers can be dealt with at

once. There is no need to have too many clerks and cashiers. The administrative work gets reduced drastically with E-banking. Expenditures on paper slips, forms and even bank stationery have gone down, which helps raise the profit margin of the bank by a surprisingly large number in addition, shorter queues in the banking hall.

Table 9: Advantages of E-banking over the traditional banking.

| Advantages | | Frequency | Percent |
|------------|--|-----------|--------------|
| Valid | Easy access to money and account details anytime | 20 | 22.2 |
| | Saves time | 29 | 32.2 |
| | Reduction in joining long queues | 17 | 18.9 |
| | Quick in banking transactions | 24 | 26.7 |
| | Total | 90 | 100.0 |

Source: Field Survey, 2011

4.12 Factors Influencing Adoption of E-banking in SG-SSB

There are factors influencing adoption of E-banking products in SG-SSB. Results in Table 10 indicated that most respondents (33.3%) believed satisfaction of customer needs was the main influencing factor for adoption of E-banking in SG-SSB. Significant proportion of respondents also said competition from other banks also has a strong influence on E-banking adoption (Table 10). This is because other banks have introduced E-banking hence would lure customers if SG-SSB have not. These two main factors were also identified as an E-banking adoption influencing factors in Kenya. Their results indicated that only 60% of the banks identified competitive forces as a factor driving their banks to adopt E-banking. Seventy percent of the surveyed banks identified the number of other retail banks adopting E-banking as a driver of 'some' significance ,while 80% deemed customers demand as a driver of

extreme importance (Gikandi, and Bloor, 2010). This follows observations by Bradley and Stewart (2003) who noted that banks have realised that customers are the core to their businesses and thus must respond to their needs. Enhanced ability to deal with customers was identified by all banks as being a driver of extreme importance. This conforms to earlier findings by Hwang et al. (2003) that E-banking provides faster and cheaper services to the customers. Another study also revealed that competitive forces are motivators of adoption of E-banking. This is in line with findings by Mols (2000). Adoption of E-banking is viewed as a defensive measure against competitive activities and thus a competitive necessity within the industry. Similarly, suitability has emerged as an important driver of E-banking confirming findings by Hughes (2003).

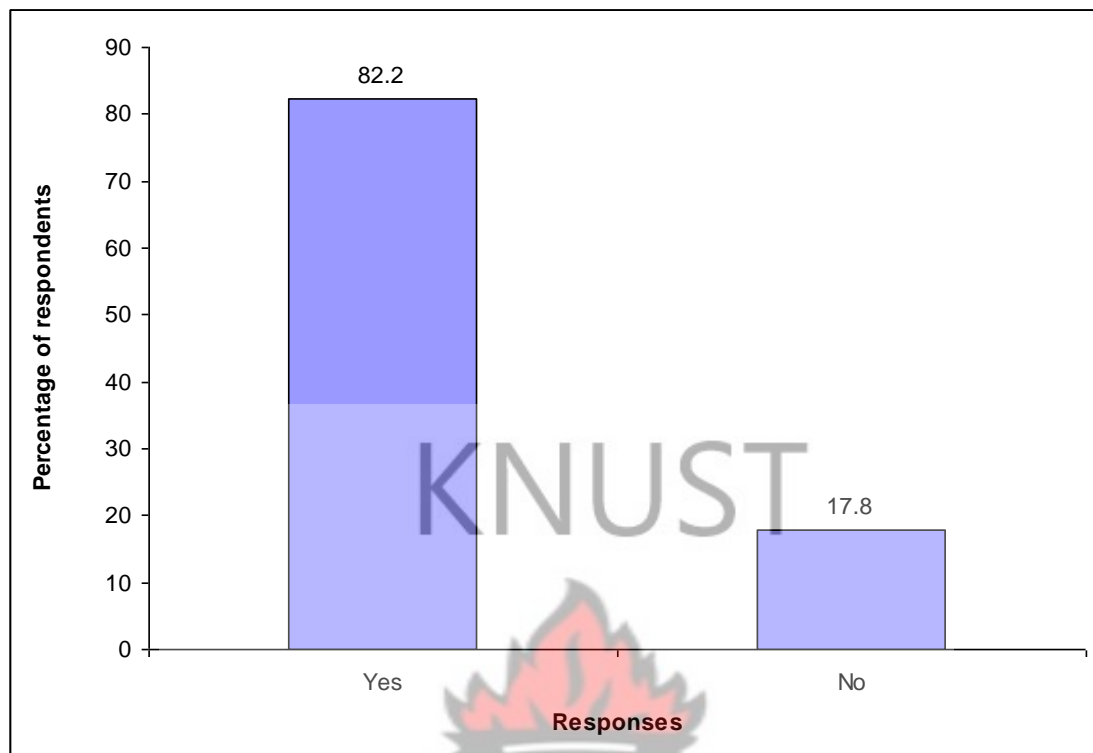
Table 10: Factors Influencing Adoption of E-banking in SG-SSB

| | | Frequency | Percent |
|-------|--|-----------|--------------|
| Valid | Technological advancement | 11 | 12.2 |
| | Satisfying customer needs | 30 | 33.3 |
| | Overcrowding in the banking hall | 13 | 14.4 |
| | Competition and decongestion of banking hall | 11 | 12.2 |
| | Competition | 25 | 27.8 |
| | Total | 90 | 100.0 |

Source: Field Survey, 2011

The result further revealed that most respondents (82.2%) believed other people prefer E-banking in SG-SSB (Figure 7). This might be due to the fact respondents perceived that other customers' were also enjoying the advantages associated with the use E-banking hence given preference relative to the traditional banking

Figure 7: Distribution concerning preference of E-banking by other customers



Source: Field Survey, 2011

4.13 Respondents level of satisfaction on the use of E-banking

Comfortability of customers is also another factor associated with the use of E-banking products. The study indicated in Table 10 that 90% of respondents were very comfortable with the use of E-banking products. However, 10% of respondents mentioned that they do not feel comfortable using E-banking. The comfortability derive from E-banking usage lessen time spend for banking.

Table 11: Respondents level of satisfaction on the use of E-banking

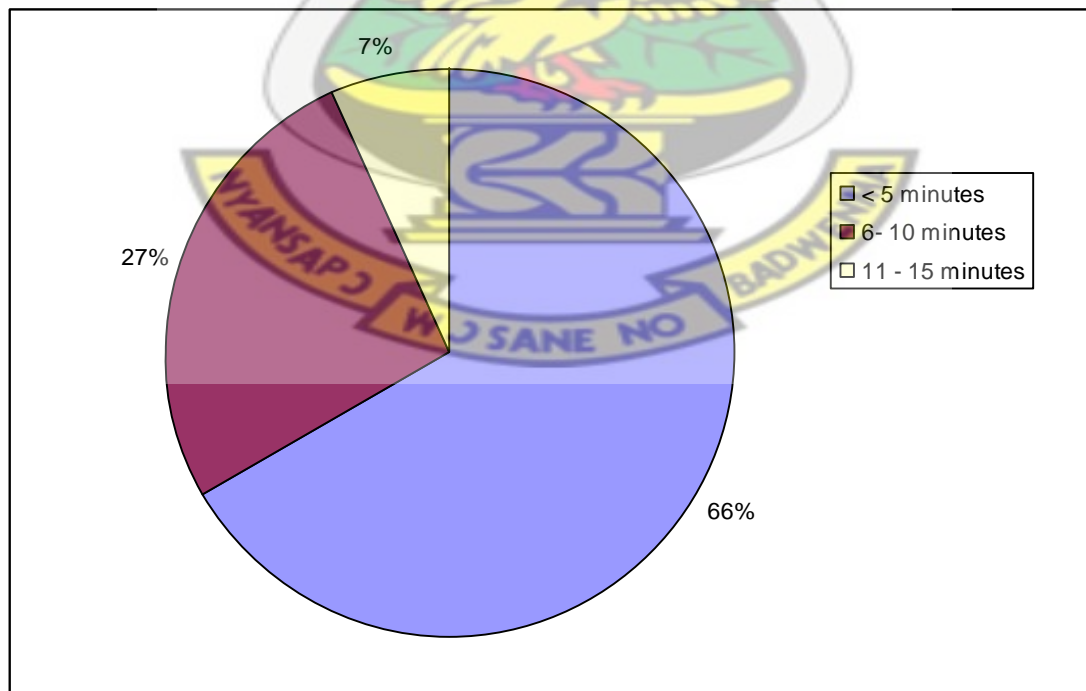
| Responses | Frequency | Percent |
|--------------|-----------|------------|
| Yes | 81 | 90 |
| No | 9 | 10 |
| Total | 90 | 100 |

Source: Field Survey, 2011

4.14 Time Spent by respondents on the use of E-banking

The study further sought from respondents on time spent with regards to the use of E-banking facilities. The results indicated that 82.2% of respondents stated that they actually spend less time using E-banking whiles 17.8% mentioned they rather spend more time using the E-banking system. Nevertheless, less time is actually spent using E-banking products. For instance requesting account details from SG-SSB requires only a few minutes (less than 5 minutes) for the information to be deliver onto the customer's phone, a product called Sikatext. According to the result, most respondents (66%) said they spend an average of 1-5 minutes to transact business using E-banking system (Figure 8). This might be due to the user friendly nature of most the E-banking products. Customers do not require a lot of time using E-banking products.

Figure 8: Distribution of respondents concerning time spent using E-banking products

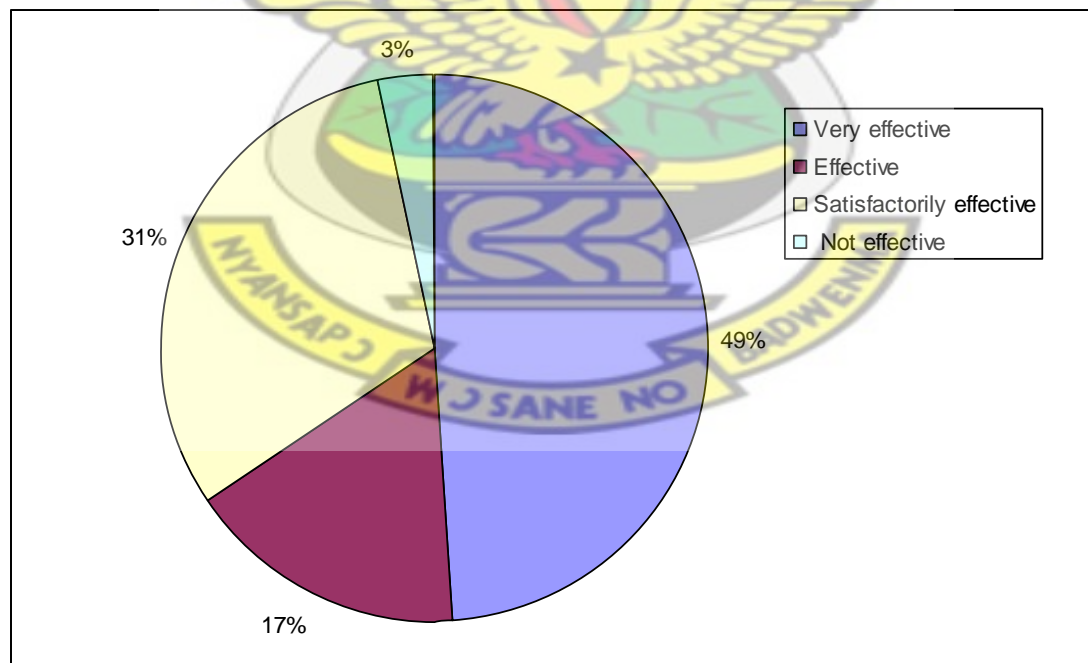


Source: Field Survey, 2011

4.15 Respondents perceptions towards the effectiveness of E-banking

The effectiveness of E-banking products would make customers patronise the products. Figure 9 shows respondents perception towards the effectiveness of E-banking. The result shows that majority of respondents (49%) affirmed that E-banking is very effective in SG-SSB. The E-banking services are monitored 24 hours and very effective in transaction of businesses. Customers have different level of satisfaction for E-banking products usage. The results further show that, most respondents (44.4%) were very satisfied with the use of E-banking products (Table 11). Customer satisfaction is a key to a development of a facility. SG-SSB has Customer Service Department where the needs of customers are channelled and address. This applies to all the E- banking products. Therefore it is not surprising to show that customers were very satisfied with the E-banking products they are using.

Figure 9: Distribution of respondents concerning effectiveness of E-banking



Source: Field Survey, 2011

Table 12: Level of satisfaction of E-banking products

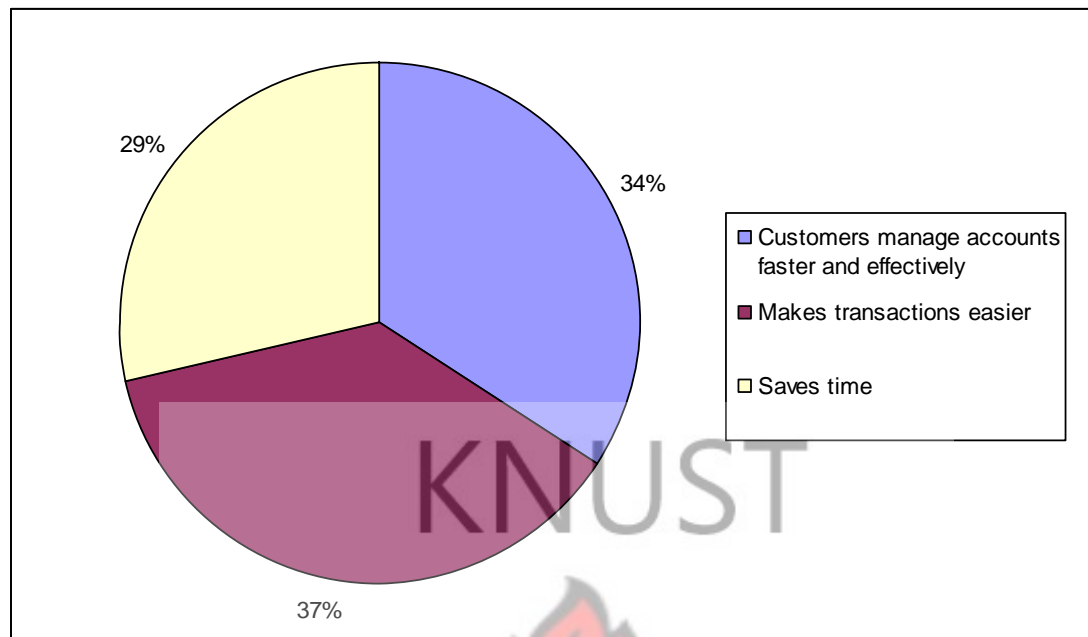
| | | Frequency | Percent |
|-------|--------------|-----------|--------------|
| Valid | Poor | 3 | 3.3 |
| | Average | 7 | 7.8 |
| | Good | 5 | 5.6 |
| | Very good | 40 | 44.4 |
| | Excellent | 35 | 38.9 |
| | Total | 90 | 100.0 |

Source: Field Survey, 2011

4.16 The impact of E-banking to respondents

Figure 10 illustrates the positive impact of E-banking to respondents. Results shows that ninety (90%) of respondents believed that E-banking was having a positive impact on customers, while 10% do not see the positive impact of using E-banking. However, the most prominent impact was customers having more time for other businesses. Because the use of E-banking lessens time spent for banking. Also the results clearly shows that respondents (37%) mentioned that the positive impact of E-banking was making banking transactions very easy (Figure 10). Because transactions are being made easier using E-banking it may attract a lot of customers. Significant number of respondents also believed that with E-banking, they could easily manage their accounts faster and effectively. For instance customers could easily know their account balance by requesting this through the Sikatext E-banking product of SG-SSB. Any imbalance in the accounts could easily be tracked and corrected within the shortest possible time.

Figure 10: Distribution of respondents concerning positive impact of E-banking



Source: Field Survey, 2011

4.17 Reasons in using E-Banking products with regards to security

The security of E-banking is paramount to the service providers. Table 13 shows the level of security participants felt with regards to the use of E-banking facilities. The results indicates that 48 of the respondents representing 53.3% felt that security features of E-banking are good which makes it very difficult to be abused by fraudsters and therefore safe to use. In addition, 28 (31.1%) of the respondents affirmed that there is privacy in using E-banking, whilst 14 (15.6%) of the respondents believes that frauds are not easily detected in using E-banking facilities.

Table 13: Reasons for safety in using E-Banking products

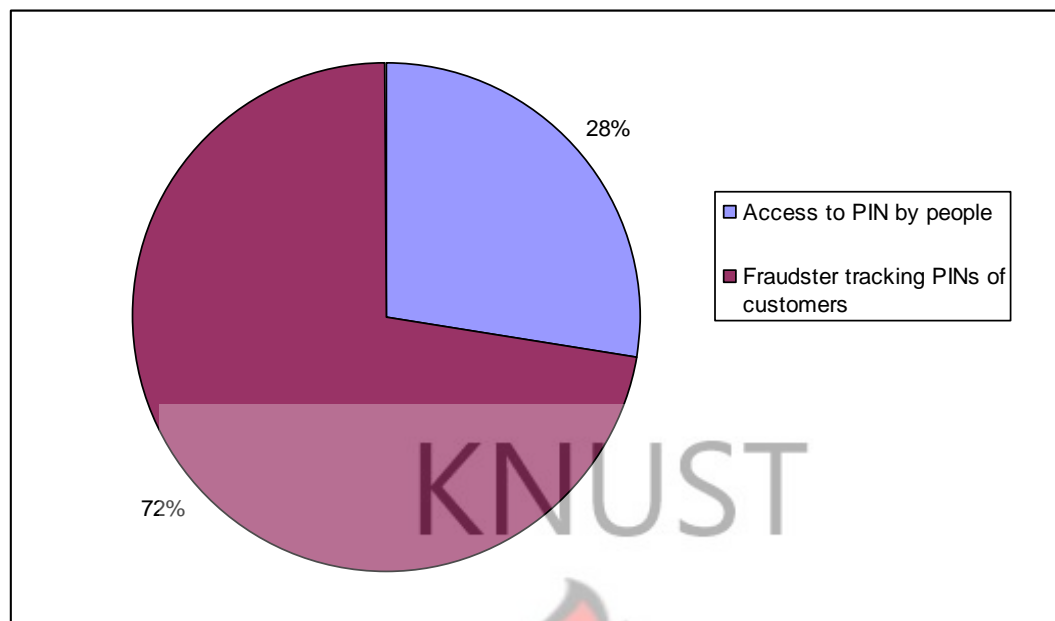
| | | Frequency | Percent |
|-------|----------------------------|-----------|--------------|
| Valid | Gives me privacy | 28 | 31.1 |
| | Frauds not easily detected | 14 | 15.6 |
| | Security features are good | 48 | 53.3 |
| | Total | 90 | 100.0 |

Source: Field Survey, 2011

4.18 Respondents view on E-banking concerning fraud

In making E-banking products for transactions, the manufactures or the service providers are always concerned about hackers and anti-social elements. Therefore security features are always provided to prevent theft. In the process of acquiring the E-banking products, certain confidential information is required in addition to user name and passwords. This is available to the customer only. In addition, most of the banks try to make their sites secured by implementing latest network security software to prevent hackers from entry. Those who feel E-banking usage was not secure mentioned that fraudster could easily tracked customer's pins and access their accounts (Figure 11). They also believe that any close pal of the customer who knows the pin could access the accounts. E- Banking fraud is carried out in two major steps. Firstly, the offender must get their hands on the customer's account information, like their username and password. Secondly, the offender will use that information to move his victim's money to another account or withdraw it to make fraudulent purchases. However, protection of this information makes E-banking very secure and safe.

Figure 11: Distribution of respondents concerning fraud in E-banking



Source: Field Survey, 2011

4.19 Challenges of E-banking

Notwithstanding the significant benefits of E-banking products, it carries risks and challenges which are recognised and need to be managed by the banking institution in a prudent manner. In this study, most respondents (66.7%) mentioned that the main challenge facing E-banking system in SG-SSB is unreliable network system (Table 14). This is true because internet connection which linked the systems together could easily fail resulting in collapse of the E-banking network system. However, the internet service is not provided by SG-SSB. The bank relies on this service provider so any hitch in their system has effect on the network of the bank. Furthermore, charges attracted for using E-banking products were very high according to some respondents. Although the study was not able to ascertain how much is being charge for the E-banking products, almost all the banks charge for the use of the E-banking products with the exception of Barclays Bank that abolished ATM charges recently. The limit of money that could be withdrawn was also seen as a challenge by some respondents. However, this is done in Banks in other countries too. For instance a

study in Singapore shows that 72% of respondents considered transactions limits to be important. This may be due to the fact that Singaporean consumers routinely deal in small amounts (Sohail and Shanmugham, 2003).

Table 14: Challenges facing E-banking products

| | | Frequency | Percent |
|-------|-----------------------------------|-----------|--------------|
| Valid | Limit on amount of cash withdrawn | 12 | 13.3 |
| | Unreliable network system | 60 | 66.7 |
| | Wrong debits | 4 | 4.4 |
| | Unreliable source of power | 4 | 4.4 |
| | Bank charges for ATM services | 10 | 11.1 |
| | Total | 90 | 100.0 |

Source: Field Survey, 2011

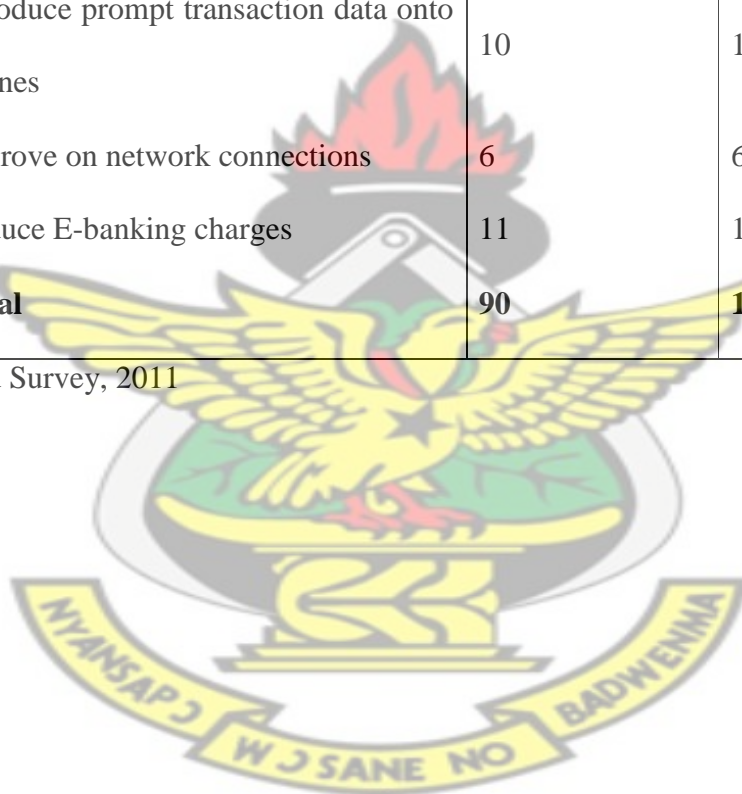
4.20 Ways to enhance E-Banking in SG-SSB

With regards to ways of improving upon E-banking usage, Table 15 indicates that majority of the respondents (24.4%) pointed out that education and marketing of E-banking products to customers would increase patronage and usage of the products. Education of the public concerning the benefits of various E-banking products would attract more customers to bank with SG-SSB. Furthermore, more ATM outlets should be introduced at vantage locations within the city. This would also reduce the distance customers would use to access the facility and entice more customers to bank with SG-SSB.

Table 15: Ways to enhance E-Banking in SG-SSB

| | Frequency | Percent |
|--|-----------|--------------|
| Valid Increase security on use of E-banking products | 13 | 14.4 |
| Have more ATM outlet | 15 | 16.7 |
| Customer education and marketing E-banking products | 22 | 24.4 |
| Regular maintenance of ATM | 13 | 14.4 |
| Introduce prompt transaction data onto phones | 10 | 11.1 |
| Improve on network connections | 6 | 6.7 |
| Reduce E-banking charges | 11 | 12.2 |
| Total | 90 | 100.0 |

Source: Field Survey, 2011



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The study carried out show some main finding regarding usage and challenges of E-banking products from SG-SSB. It includes understanding of E-banking by customers. Respondents explained E- banking as the use of internet and electronic media to bank. Respondents were patrons of E-banking products from SG-SSB although some customers were also operating accounts in other banks.

Another major finding is the awareness of the different E-banking products offered by SG-SSB to customers namely ATM, Sikatext, Sikanet, Sikamail and Sikatel However, most customers prefer ATM usage only, whiles significant proportion of respondents uses combination of these products. For instance, a customer would use Sikatext to require instant account details whiles having ATM card for withdrawing of money. The result further shows that most customers have been using these E-banking products within the last 5 years.

Among the E-banking products offered by SG-SSSB, customers prefer ATM service relative to others. On a scale ranking of 5, customers ranked ATM with an average score of 3.8 being the preferred E-products, followed by Sikanet (3.4), Sikamail (3.2), Sikatext (2.5), and Sikatel (2.2). The preference for ATM was due to the fact that ATM is 24-hour teller electronic terminals which give consumers the opportunity to bank at almost any time especially withdrawing of money. The other products often

provide accounts information and details. The main reason for ATM preference is because of its efficiency and user friendly ability.

Customers mentioned several advantages for using E-banking products. The most dominant reasons were easy access to money and account information 24-hour and time saving for customers to carry out other duties. Others included no more long queues as associated with the traditional mode of banking; transactions are very fast and convenient.

There are some factors influencing adoptions of E-banking products. Customer satisfaction was identified as the main factor. Customer satisfaction is a key to growth of the industry. Another major factor is competition from other banks. Increasing competition among banks to increase or retain their customer base is driving the banks to continue to adopt E-banking technologies. Competitive forces will progressively continue to be an important driver. As banks continue to adopt evolving and emerging technologies, they will seek to differentiate their products in order to retain their identity and remain competitive. Other factors identified are technological advancement and decongestion of the banking hall.

Another finding was the effectiveness of E-banking. They mentioned that they were highly satisfied with services offered by E-banking products of the bank. E-banking products were very comfortable in usage, saves a lot of time and convenient. Averagely, a customer spends less than 5 minutes transacting business with the use of E-banking products. They have enough security features which prevent easy theft.

Notwithstanding the benefits associated with E-banking, it has some challenges. The paramount among them is the network failure. In course of a transaction, the network could easily break down resulting in incomplete transaction. Others mentioned by respondents included limit on amount of cash withdrawn, wrong debits being made and increase in bank charges for the use of the E-banking products.

Customers proposed ways to address some of these challenges. Notable among them was customer education and marketing of E-banking products. They were of the view that if proper and enough education were done concerning E-banking products in SG-SSB, it would attract a lot of customers. Other measures were, SG-SSB should have more ATM outlets, regular maintenance of ATM facilities, improve on network connections, reduce E-banking charges, increase security features on E-banking products and introduce prompt transaction data onto phones.

5.2 Conclusions

This study showed that customers of SG-SSB patronise E-banking products such as ATM, Sikanet, Sikatext, Sikamail and Sikatel. They derive certain benefits from the use of these products predominantly time saving, easy access to cash and convenient in the use of the products. However, customers prefer ATM among the E-banking products because of its effectiveness and user friendliness. The average operating time of E-banking products is less than 5 minutes. Furthermore, E-banking products have security features such as username and passwords which are used to protect the products from easy theft. Adoption of E-banking products has influencing factors. Predominant factors are customer satisfaction and competition from other banks. Increasing competition among banks to increase or retain their customer base is

driving the banks to continue to adopt E-banking technologies. Despite the benefits of E-banking, it is associated with some challenges. The study shows that network failure from internet connection is the major challenge facing customers using E-banking products from SG-SSB. However, respondents believed that considerable education and marketing of E-banking products from the bank could attract more customers.

5.3 Recommendations

E-banking in SG-SSB offers opportunities to customers derive certain benefits from its usage. There were certain limitations in this study. Within the limitation of the study, the following recommendations are made:

- Education and marketing of E-banking products should be encouraged in the bank to attract more customers.
- More ATM facilities should be placed at vantage locations within the city to reduce distance and time use in access the facility.
- It is also recommended that they should reduce the charges E-banking attracts to lure more customers to patronise the products.
- It is recommended that prompt transaction onto mobile phones should be introduced to also entice more customers as in other banks.
- Further research should be carried out to find out how new E-banking products customers need to make SG-SSB unique.

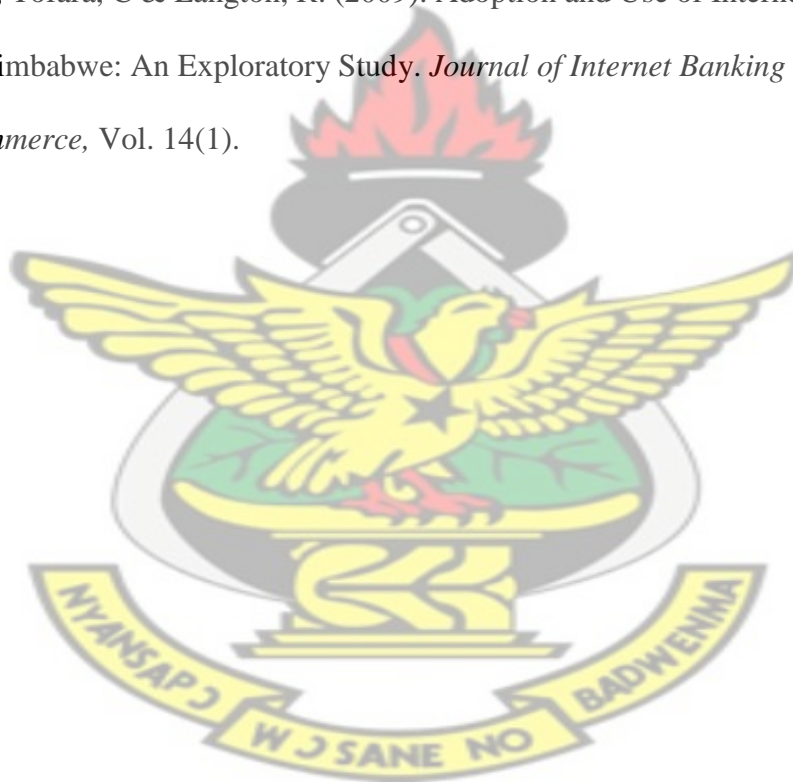
REFERENCES

- Abor, J. (2004). *Technological Innovations and Banking in Ghana: An evaluation of customers' perceptions*. Accra, University of Ghana, Legon.
- Adams, A.N. & Lamptey, A.O. (2009). *Customer perceived value in internet banking in Ghana*. Masters Thesis, Lulea University of Technology, Sweden and University of Education, Winneba, Ghana.
- Adriana, C. (2006). Forms of electronic banking. *Journal of internet banking*, Vol. 16(6), Bank of Slovenia, Narodna
- Ainin, S., Lim C.H., & Wee, A. (2005). Prospect and Challenges of E-banking in Malaysia. *The Electronic Journal on Information Systems in Developing Countries*. . 3:1, pp. 5-19.
- Aladwani, A. M. (2001). *Online banking: a field study of drivers, development challenges and expectations*. *International Journal of Information and Management*, 2 (1), 213–225.
- Balachandher K., G., Santha V., Norhazlin I., & Rajendra P., (2001). *Electronic banking in Malaysia: A note on Evolution of Services and Consumer Reactions*.
- Basel Committee on Banking Supervision (2001). *Risk management principles for electronic banking*. Bank for International Settlements.
- Boateng R. (2006). *Developing E-banking capabilities in a Ghanaian Bank: Preliminary lessons*, *Journal of the internet banking and commerce*, Vol.11 (2)
- Bradley, L., & Stewart, K. (2003). *The diffusion of online banking*. *Journal of Marketing Management*.10 (19), 1087–1109.

- BSP, (2006). *Electronic banking consumer awareness program for internet products and services*. Circular No. 542, Appendix C.
- CBK. (2008). *Payment Systems in Kenya*: Central Bank of Kenya annual financial report for the year 2008, Kenya.
- Cheng, T. C. E., (2006). *Adoption of internet banking: An empirical study in Hong Kong*." *Decision Support Systems*, vol. 42, pp. 1558-1572.
- Chorofas, D. N. (1988). *Electronic funds transfer*. Butterworth's, London, UK.
- Claessens, J., Dem. V., De Cock, D., Preneel, B. & Vandewalle. J. (2002). *On the security of todays online electronic banking systems*. *Computers & Security*, Vol. 21:3:257-269
- Daniel, E., & Storey, C. (1997). *On-line banking: Strategic and management challenges pergamon*. PII: 4-5 (S0024-63010007).
- Federal Trade Commission, FTC, (2006) *FTC Facts for Consumers*.
- Gikandi J. W., & Bloor, C. (2010). *Adoption and effectiveness of electronic banking in Kenya: Electronic commerce research and applications*. 9: 277–282
helpwithmybank.org/dictionary/index.html accessed on 30/3/2011
- Hughes, T. (2003). *Marketing challenges in E-banking: standalone or integrated?* *Journal of Marketing Management*, 19:1067–1085.
- Hwang, J. J., Yeh, T. C., and Li, J. B. (2003). *Securing on-line credit payment without disclosing privacy information*. *Computer Standards and Interfaces*, 25: 119–129.
- Ibrahim, E.E., Joseph, M & Ibeh, K.I.N (2006). Customers' perception of electronic service delivery in the UK retail banking sector. *International Journal of Bank Marketing*, Vol. 24, No. 7, pp. 475-493.

- Kaleem, A & Ahmad, S. (2008). Bankers' Perceptions of Electronic Banking in Pakistan. *Journal of Internet Banking and Commerce*, Vol. 13, No.1.
- Kolodinsky, J., & Hogarth, J. M. (2001). *The adoption of electronic banking technologies by American consumers*. *Consumer Interests Annual*, 47, 3: 1–9.
- Kuzic, J., Fisher J. & Scollary, A. (2002). *Electronic commerce benefits, challenges and success factors in the Australian banking and finance industry*. ECIS June 6–8, Gdańsk, Poland
- Liao, Z., & Cheung, M.T. (2002). *Internet-based e-banking and consumer attitudes: an empirical study*. *Information & Management* 39: 283–295
- Lockette, A. & Littler, D. (1997). *The adoption of direct banking services*. *Journal of Marketing Management*. 13:791-811
- Mavri, M & Ioannou, G. (2006). Consumers' Perspectives on Online Banking Services. *International Journal of Consumer Studies*, Vol. 30 (6), pp.552–560.
- Mols, N. P. (2000). *The internet and services marketing: The case of Danish retail banking*. *Internet Research*, 10, 1:7–18.
- Nyangosi, R., Arora, J. S., & Sing, S. (2009). The evolution of e-banking: a study of Indian and Kenyan technology awareness. *International Journal of Electronic Finance*. 3, 2: 149–169.
- Riyadh A. N., Akter S. M., & Islam N. (2009). *The Adoption of E-banking in developing countries: A Theoretical Model for SMEs*. *International Review of Business Research Papers* (6) 5, Pp.212-230.
- Rose, P. S. (1999). *Commercial bank management*, (4th ed)., Irwin/McGraw-Hill, Boston, USA.
- SG-SSB (2007), *Policy document on internet banking*, unpublished manuscript. Accra

- Shih, B. & Fang, K. (2004). *The use of decomposed theory of planned behaviour to study internet banking in Taiwan*. Internet Research, 3(14), 213-223
- Simpson, J. (2002). *The impact of the internet in banking: Observations and evidence from developed and emerging markets*. Telematics and Informatics.19, 4, 315–330.
- Smith, A. D. & Rupp W. T. (2003). *E-banking: Foundations of financial and*
- Sohail, S. M. & Shanmugham, B. (2003). *E-banking and customer preferences in Malaysia: An empirical investigation*. Information Sciences 150: 207–217
- Thulani, D., Tofara, C & Langton, R. (2009). Adoption and Use of Internet Banking in Zimbabwe: An Exploratory Study. *Journal of Internet Banking and Commerce*, Vol. 14(1).



APPENDIX 1

Kwame Nkrumah University of Science and Technology

Institute of Distance Learning

QUESTIONNAIRE

The researcher is a student of the KNUST, pursuing a masters degree programme in Business Administration. I am undertaking a dissertation on the topic: **Prospects and Challenges of Electronic Banking in Ghana .A case study of SG-SSB LTD.**

Important Note: Information supplied by you will be treated as strictly confidential. Identity of position will not be revealed. Information will be used for only academic work. . I greatly appreciate your co-operation.

Questionnaire No.....

Demographic Characteristics

1. Sex of respondent: Male ☐ Female ☐ (circle one)
2. Educational level of respondents
University graduate level ☐ Professional Certificate ☐ Polytechnic / HND ☐
Vocational / Technical ☐ Secondary school / SSS ☐ Middle school / JSS ☐
Informal ☐
3. Do you bank with SG-SSB?
Yes ☐ No ☐
4. Category of respondents
IT staff ☐ other staff ☐ Customer ☐
- 5 Type of customer
Individual ☐ SME ☐ Corporate ☐
6. What type of banking services do you know about?

Traditional banking []

E-banking []

Both []

7. Have you heard about E-banking?

Yes [] No []

8. If yes, what do you know about E-banking?.....

.....

.....

.....

9. Have you used any E-banking facility before?

Yes [] No []

10. If yes, where?.....

.....

.....

11. Do you have any E-banking facility from SG-SSB?

Yes [] No []

12. If no why?.....

.....

.....

.....

13. What type of E-banking facility do you have or use?

ATM [] Sikanet [] Sikamail [] Sikatext [] sikatel []

14. Why are you using these facility?.....

.....

.....

.....
.....
15 When did you start using the E-banking facility?

< one year [] 1- 5 years [] 6- 10 years [] 11- 15 years [] > 15 years []

16. Which of the E-banking facility do you prefer?.....
.....
.....

17. Why?.....
.....
.....

18. Rank the facility in order of preference? Using 1 as the lower rank

ATM [] Sikanet [] Sika mail [] Sikatext [] Sikatel []

19. What do you think are the advantages of E-banking over the traditional banking way?.....
.....
.....

20. What do you think are the factors influencing adoption of E-banking in SG-SSB?.....
.....
.....
.....

21. Do you think people prefer the use of E-banking?

Yes [] No []

22. Are you comfortable with the use of the E-banking facility?

Yes [] No []

23. Do you spend a lot of time using the E-banking facilities?

Yes [] No []

24. Can you estimate an average time spend during the use of E-banking facility?

< 5 minutes [] 6- 10 minutes [] 11 – 15 minutes [] > 15 minutes []

25. How effective and reliable is the E- banking facility you use often?

Very effective [] Effective [] satisfactorily effective [] Not effective []

26. On a scale of 1-5 what is your level of satisfaction of E-banking facility you use?

5 - Excellent [] 4- Very good [] 3- good [] 2 –Average [] 1- Poor []

27. Do you believe E-banking is having positive impact on the user?

Yes [] No []

28. If yes, how.....

.....
.....

29. Do you think you are safe or secure using E-banking facility?

Yes [] No []

30. If yes, how.....

.....
.....

31. If no, why.....

.....
.....

32. What are some of the challenges you face using the E-banking facilities?

.....

.....

.....

.....

33. What ways do you think E-banking can be enhanced in SG-SSB?.....

.....

.....

.....

.....

THANK YOU.

