

**ATM PERFORMANCE IN ACCESS BANK GHANA LTD A CASE STUDY OF
OFFSITE AND ONSITE ATMS IN KUMASI**

BY

ADUSEI, CHRISTIANA

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DECLARATION

„I hereby declare that this submission is my own work towards the Master of Business Administration (Accounting-Option) Degree and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text“.

Christiana Adusei
(PG9607913)	Signature	Date
(Student's Name & ID)		

Certified by:

Prof. J. M. Frimpong
(Supervisor)	Signature	Date

Certified by:

Dr. K. O. Appiah
(Head of Department)	Signature	Date

ABSTRACT

The study explores the use of the ATM services at the various ATMs of Access Bank Ghana Limited. The main objective of the study is to assess the performance of ATMs in Access Bank Ghana Ltd. This was done by analyzing the various ATMs up time, customer knowledge on ATM services, determining customer perception on the benefits and problems of ATM services and also determining strategies the customers prefer the bank management adopts in order to improve upon its ATM services. The study adopted the descriptive approach which uses quantitative method of data collection and analysis. Questionnaires were the main instrument used for the data collection and it was solicited from 295 respondents using stratified sampling method to break the sample unit according to their level of education. Both primary and secondary data sources were used for the study. Questionnaires were used in gathering the primary data. The secondary data sources included the branch teller transaction reports, branch customer complain file, journals and the internet. It was found that most of the customers have a good knowledge on the services offered by the ATM. A major problem found through the study was that there is a high perception that the branch ATM is associated with technical problems such as frequent network failures and frequent breakdowns. It was also found out that the ATM withdrawal charges for savings account holders were high. It was therefore concluded that majority of ATM subscribers have a good knowledge on the services offered by the branch ATM. The motivating factors for using the branch ATM services are privacy in carrying out banking transactions, time saving element and the flexibility in use. The demotivating factors that prevented respondents from using the branch ATM are high charges, technical failures and unfavourable daily withdrawal limit.

DEDICATION

I dedicate this thesis to my lovely siblings Mrs Jennifer Boakye Ansah and Emmanuel Adusei for being a pillar and source of encouragement to me. I also dedicate this piece of work to my boss Mr Mujeeb Ben-Said. Finally, I dedicate this work to my parents, Mr. Kwabena Adusei and Mad Theresa Adjei for their prayers in completing this thesis successfully.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The trend in banking has evolved from cash economy and transformed to cheque economy which has further been converted to plastic card economy (Batiz, 2005). Interestingly, debit cards are the most rapidly growing method of payments in several countries around the world (Pierce, 2001). Information and communication technology (ICT) has also provided new products and value added services to be delivered using the same electronic infrastructure (Abor, 2004). Fierce competition from inter and intra bank group along with the global forces have compelled the banks to adopt the technological changes to face the electronic age.

The influence of technology over product innovations in banks is gigantic and it has also changed drastically the way businesses are done in these modern times. A number of studies have concluded that ICT has substantial positive effects on banks productivity; banking hall teller transactions, bank patronage and bank service delivery (Balachandler et al, 2001; Yasuharu, 2003). The automated teller machine (ATM) is no exclusion to the numerous ICT products. The use of Automated Teller Machines traditionally and primarily was to dispense cash upon insertion of a plastic card and its unique Personal Identification Number (PIN). ATM services have gone through many stages. ATMs now are such type of innovation that can mechanically accept deposits, issue withdrawals, transfer funds between accounts, payment of bills and collect cheques. To protect ATM users from fraud, some modern ATMs have been made biometric which requires a customer's biometric data such as the palm to access the ATM services without the use of cards. These biometric ATMs are better secured

because the biometric is based on the uniqueness of the individual's physiological properties such as the use of distinct fingerprints to prevent impersonation.

Banks predominantly start with locating ATM in their branches which establishes the primary ATM (Core) network. These ATMs are called Onsite ATMs. Banks now establish ATMs that can be detached from the bank branches. These are called offsite ATMs. Offsite ATMs are the machines that are set up on a standalone basis. This means that if the bank has a place where there is only an ATM machine then this becomes an offsite ATM. This is done to ensure that the bank reaches out to more geographical areas and that people are able to use its services even when there is no bank branch in the area.

Banks in Ghana have worked hard to introduce sophisticated technological innovations for efficient and fast way of serving customers given the rise in demand for banking services. This saw the emergence and use of the ATMs among many other inventions like; telephone banking, mobile banking, internet banking etc.

1.2 STATEMENT OF THE PROBLEM

Access Bank Ghana Ltd is one of the fastest growing banks in Ghana. It started its operations in Ghana in May 2009. Since then, it is their strategic decision to bring all modern technologies in their operations. With over 39 branch offices and 43 ATMs spread across the country, Access Bank Ghana has leveraged its geographical network to showcase its expertise in Treasury, Cash Management, Trade Finance and Technology driven banking solutions. The bank focuses more on its electronic banking services. The bank strives to provide innovative solution to the community it serves.

One of these keen electronic banking services is on Automated Teller Machines. In a speech delivered by the Managing Director of the Bank at the start of the year 2014, the bank was poised to opening more ATMs than opening new branches. The bank therefore aims at reaching the whole country through the installation of ATMs. ATMs do not only serve the bank's customers but reaches all banks customers with the introduction of VISA and now GH Link which allows other banks' customers who are not on VISA to use their card on any ATM in the country at a cost.

In line with this, Access Bank Ghana Limited is of the view that the installation of many ATMs across the country would make life much easier for its cherished customers and potential customers thus enabling the bank to achieve its mission and vision. To increase onsite and offsite ATM patronage, the bank management has introduced a number of innovations. Some of which include giving free GH Link cards to every individual account opened, every ATM cash withdrawal attracts a fixed charge of thirty pesewas (0.30p) irrespective of the account type if it is an on-us transaction and seventy pesewas (0.70p) for a not-on-us transaction which is the lowest in the industry. Cash withdrawals of GHC 1,000.00 and below by staffs cannot be withdrawn over the counter except with the ATM. The bank has recently introduced the cardless cash withdrawal which is a service that enables its customers to withdraw cash on any Access Bank ATM without a debit card.

The bank management has also increased the daily ATM cash withdrawal limit from Ghana Cedis (GHC) 800.00 to GHC 1,000.00 and can still be increased upon request by the customer. The withdrawal limit at a time per transaction has also been increased

from GHC 400.00 to GHC 1,000.00. By these innovations the bank expects full patronage of its ATMs for convenience.

All the above reasons call for the need to assess how the bank's ATMs are performing, its patronage by customers and recommend to the bank management the best ways to improve upon its patronage. Also, there has not been any work done to assess the bank's ATM performance after these innovations.

It's therefore against this background that the researcher was prompted to investigate, find out how these ATMs are performing and recommend appropriate measures to help improve its services. This study therefore seeks to assess how these ATMs are performing.

1.3 OBJECTIVES OF THE STUDY

The general objective of the study is to determine the reasons underlining the low patronage of ATM services at Access Bank Ghana Ltd. The specific objectives are to:

- i) Determine the performance of both onsite and offsite ATMs.
- ii) Analyze customers' knowledge on ATM services.
- iii) Determine customers perception on the benefits and problems associated with ATM services.
- iv) Determine the strategies customers and custodians prefer management adopts in order to improve ATM services patronage.

1.4 RESEARCH QUESTIONS

The study will be guided by the following research questions

- i) How do Access bank ATMs perform?
- ii) Do customers have adequate knowledge on ATM services?
- iii) What are customers perception on the benefits and problems associated with ATM services?
- iv) What strategies would customers prefer management to adopt in order to improve ATM services patronage?

1.5 SIGNIFICANCE OF THE STUDY

The research findings will be made available to the management of Access Bank Ghana Ltd and it is aimed at:

- i) Improving general banking hall services at the branches. ii) Providing the necessary recommendations to the bank management regarding ways to improve ATM services patronage.
- iii) Increasing the bank's income in relation to number of tellers employed, this is because fewer staff would be required to carry out customer transactions such as cash withdrawals, printing of bank statements, checking of account balances etc.
- iv) Increasing the bank's profitability with regard to the commissions the bank will receive from the use of ATM services especially with not on us transactions.

1.6 SCOPE OF THE STUDY

The topic of the study is the assessment of the performance of ATMs. These ATMs services shall be measured using variables like; Frequency of the ATM down time, System/Network instability, stock outs, bad notes dispensing, proximity, speed and efficiency of ATM services in solving the queuing problems of banks clients. The study

will be restricted to the ATM services of Access Bank Ghana Limited, Asafo branch and the K.N.U.S.T. offsite ATM. The study is also limited to customers with ATM cards in the Kumasi conurbation. It also focuses on only ATM even though there are other forms of electronic payments being offered by Access Bank Ghana Ltd.

1.7 LIMITATIONS OF THE STUDY

The major limitation of the study will be the difficulty in locating the various ATM users. Also the customers and various custodians of these ATMs might not be willing to fill questionnaires or respond to the interviews that will be held although they would be informed about the purpose of the research accordingly.

1.8 ORGANISATION OF THE STUDY

The study is divided into five chapters; Chapter One introduces the topic with the background of the study, statement of the problem, objective of the study, research questions, the significance of the study and organization of the study. Literature is reviewed in Chapter Two. Chapter Three deals with methodology, which includes research design, population, sample and sampling procedures, instruments, data collection procedure and data processing. Chapter Four, deals with results and findings. Chapter Five which is the final chapter deals with summary of findings, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 COMPANY PROFILE

Access Bank Ghana Ltd is a subsidiary of Access bank Plc, which parent bank is in Nigeria. The bank has standardized its processes and operations as it seeks to get ISO recognition. Thus, the corporate profile, culture and values transcends from the parent company through to all the subsidiaries.

Access Bank (Ghana) Limited, one of the leading banks in Ghana, was incorporated in May 2009 as a private limited liability company. The Bank is licensed to carry out universal banking services and provides a comprehensive bouquet of financial and non-financial services to individual and corporate customers.

The Bank is part of the Access Bank Group, made up of nine (9) African markets, spanning sub-Saharan's three monetary zones and the United Kingdom. The Bank has significant shareholding from Ghanaian investors as well as diversified shareholding from individual and foreign institutional investors including Access Bank Plc, a preeminent financial services institution ranked amongst the Top 10 Banks in Africa.

With over 39 branch offices and 43 ATMs spread across the country, Access Bank Ghana has leveraged its geographical network to showcase its expertise in Treasury, Cash Management, Trade Finance and Technology driven banking solutions. The Bank is also leading the way with investments in key sectors of the economy including Telecommunications, Oil and gas, Manufacturing and Agriculture.

Some of the key indices of the Bank as at March 5, 2012, include:

Total Assets: GHC 929,557M

Paid-Up Capital: GHC 118,296M

Liquidity ratio: 62.65%

As one of the most capitalized banks in the industry, the Bank is also facilitating infrastructural development through the provision of necessary funding and credible partnership with the Government and stakeholders in the economy.

The Bank's growing profile as a leading bank in Ghana is further underscored by its commitment to industry growth and sustainability as evidenced by its pioneering role in industry redefining initiatives; particularly in the bonds trading market and responsible business practices.

Access Bank Ghana maintains a robust risk management framework and technology infrastructure that guarantees customers and other stakeholders' superior returns on a daily basis. Its chain of customer focused products and services ensure that the Bank is able to develop banking solutions that meet the needs of multiple stakeholders simultaneously. This approach guarantees mutually beneficial out-comes through the value chain of Large Corporate organisations including subsidiaries, partners, suppliers, distributors and employees.

The Bank has business relationships and partnerships with leading international and multi-lateral organizations such as Visa International, The Netherlands Development Finance Company (FMO), Accenture and KPMG.

Access Bank Ghana has continuously displayed a strong commitment to community development by leveraging its people and financial resources to invest in Education,

Health, and the Arts as part of its Corporate Social Responsibility. More than 80% of staff is involved in voluntary community programmes annually, through the Access Bank Employee Volunteering Programme (EVP).

In 2010, Access Bank Ghana received the „Most Socially Responsible Bank“ Award at the 10th Ghana Banking awards ceremony. The Bank also received awards in „Agricultural Financing“ and „Financial Performance“ category. The bank was also adjudged as the Bank of the year for 2013.

2.1.1 The Vision

The vision of Access Bank plc (Which is same for ABG) is:

Since 2002, the bank has been transformed from a small obscure Nigerian bank into a world-class financial institution in an attempt to achieve the goals that we set ourselves.

2.1.2 The Mission

“Setting standards for sustainable business practices that unleash the talents of our employees deliver superior value to our customers and provide innovative solutions for the markets and communities we serve”.

As the bank seeks to achieve and ender the mission statement, a roadmap for the next five years was sets which will see sustainability in the growth trend of the Bank. By 2017 the bank aims to:

1. Be a truly multi-channel bank
2. Rank 1st, 2nd or 3rd in each market we serve
3. Be the preferred African bank in Africa“s most attractive markets
4. Have a global operating model
5. Deploy best-in-class technology in Africa

2.1.3 Our Core Values

At Access Bank, values play a vital role in the decision making processes. They are the bedrock of the bank's culture.

There are six values that underpin everything we do and apply to everyone across the Bank and that is what members have all committed to live up to, day by day.

Excellence

1. Surpassing ordinary standards to be the best in all that we do
2. Setting the standard for what it means to be exceptional
3. Our approach is not that of excellence at all costs– it is excellence on all fronts so that we deliver outcomes that are economically, environmentally and socially responsible.

Innovation

1. Pioneering new ways of doing things, new products and services, new approaches to clients/customers
2. Being first, testing the waters and pushing boundaries
3. Anticipating and responding quickly to market needs with the right technology, products and services to achieve customer objectives.

Leadership

1. Leading by example, leading with guts
2. Being first, being the best and sometimes being the only
3. Challenging the status quo

Passion for Customers

1. Doing more than just delivering excellent customer service
2. Helping people clearly understand how our products and services work

3. Treating customers fairly. Building long-term relationships based on trust, fairness and transparency.

Professionalism

1. Putting our best foot forward in everything we do, especially in high pressure situations
2. Consistently bringing the best of our knowledge and expertise to the table in all of our interactions with our stakeholders
3. Setting the highest standards in our work ethic, behaviours, activities and in the way we treat our customers and, just as importantly, each other.

Empowered Employees

1. Recruiting and retaining the right people and teams based on shared values and vision
2. Developing our people to become world-class Professionals
3. Encouraging a sense of ownership at individual level, whilst fostering team spirit and loyalty to a shared vision

2.1.4 The Brand Promise: Speed, Service and Security

This is the tripartite proposition and the hallmark of the Access brand. At Access Bank, all employees are individually and collectively responsible for delivering excellence across these three elements. Across the marketing communications, the bank uses these terms to draw customers' attention to the benefits of our products. It uses a specially designed „promise mark“ that signals the commitment Access Bank makes to address what matters most to customers. Over time, the Bank will become deeply associated with these

Characteristics;

Speed: Driving new innovations in the banking sector

Service: Providing a world class customer experience

Security: Generating safe, sustainable returns for investors

Access Bank Ghana Ltd is a full service commercial Bank operating through a network of 39 branches and 12 Agencies or service outlets located in Greater Accra

Region, Ashanti Region, Western, Brong Ahafo, Volta and Northern Regions of Ghana.

The Bank serves its various markets through 4 business segments: Personal, Business, Commercial and Corporate & Investment banking.

Access Bank Ghana Limited has also introduced many exciting products to their current product suite. Some of them is the Visa Automated Teller Machine (ATM) Debit card, a product which enables their customers to make withdrawals from over

1.8 million Visa-branded ATMs worldwide, including Ghana (www.visacemea.com/uv/cash_machine.jsp) and the **Gh-link** card which is a national **ATM** card in **Ghana** that enables users to use the same card at different bank **ATM** points. This service is to interconnect banks in **Ghana** (<http://en.wikipedia.org/wiki/Gh-link>)

2.2 THE CONCEPT OF ATM

ATM means neither “avoids traveling with money” nor “any time money,” but certainly implies both. Slim ATM cards are fast replacing confounding withdrawal forms as a convenient way of getting your money from banks. In a way, they are rewriting the rules of financial transaction. A smart person no longer needs to carry a wallet-full of paper

money on his person. All he needs to do is fish out an ATM (automated teller machine) card, insert it in the slot, punch in a few details and go home with hard cash.

Automated teller machines (ATMs) were the first well-known machines to provide electronic access to customers. With advent of Automatic Teller Machines (ATM), banks are able to serve customers outside the banking hall. ATM is designed to perform the most important function of bank. It is operated by plastic card with its special features. The plastic card is replacing cheque, personal attendance of the customer, banking hour's restrictions and paper based verification. ATMs have made hard cash just seconds away all throughout the day at every corner of the globe. ATMs allow you to do a number of banking functions – such as withdrawing cash from one's account, making balance inquiries and transferring money from one account to another – using a plastic, magnetic-strip card and personal identification number issued by the financial institution.

ATM is typically made up of the CPU for controlling the user interface and transaction devices, magnetic or Chip card reader for identifying the customer, display which is used by the customer for performing the transaction, function buttons usually close to the display or a Touch screen used to select the various aspects of the transaction and a record printer which provides the customer with a record of a transaction (Cronin and Mary, 1997).

Most ATMs are connected to interbank networks, enabling people to withdraw and deposit money from machines not belonging to the bank where they have their account or in the country where their accounts are held thus enabling cash withdrawals in local currency (Maxwell, 1990). They are often identified by signs above them indicating the name of the bank owning them.

The ATMs of a bank are connected to the accounting platform of the bank through ATM switches. Inter-bank ATM networks are created by setting up apex level switches to communicate between the ATM switches of different banks. The interbank ATM networks facilitate the use of ATM cards of one bank at the ATM(s) of other banks for basic services like cash withdrawal and balance enquiry. Banks owning the ATMs charge a fee for providing the ATM facility to the customers of other banks. The ATM deploying bank from the card issuing banks recovers this fee referred to as „interchange fee“. However the interchange fee is not fixed across banks and depends on the terms of bilateral / multilateral arrangements. Banks with larger ATM network treat interchange fee as an important stream of revenue.

2.3 ATM TECHNOLOGY EVOLUTION

Most inventions have happened due to sheer necessity and ATM is one of them. The history of ATM is full of interesting facts of which some are known and others unknown. According to the website www.engineersgarage.com/invention-stories/atmhistory, it is believed that the history of ATM started when an Armenian named Luther George Simjian was forced to move to USA in the year 1920, under the account of Armenian Genocide. He owned to his credit the invention of a portrait camera and then he later rolled out the formulated idea of ATM. Confident of his invention, he persuaded Citibank to run his product on a six month trial basis. Soon enough, he was disappointed with the performance and the lack of users and concluded that ATM was a wasteful addition to personal banking. The lack of demand for the ATM finally forced him to take a back seat. During this period it was very clear that the time was not right for this concept to have been accepted generously.

Simjian clearly lost out on the success and fame and the same was passed on to two other gentlemen, John Shepherd-Barron and Don Wetzel. John Shepherd-Barron was a Scottish national born in India. Later he relocated to Britain and pursued his education from the University of Edinburgh, and at Trinity College, Cambridge. After returning empty handed from a bank, Shepherd-Barron was disappointed to have had no option than to wait till the bank opened the next working day. And thus in a similar fashion like Archimedes, Shepherd-Barron claims to have hit his interesting moment while taking a bath. A self-sufficient cash dispensing machine was what he was thinking about. And soon the ATM was invented in the early 1960s. The invention of a self-sufficient cash dispensing machine was his second and successful attempt at inventions. Prior to this invention he had invented an instrument to scare away seals (fish eating mammals) at his Scottish Salmon farms. Unfortunately, this device instead of deterring the seals attracted them, and was thus a failure. The same website also shows that the ATM machine gained Shepherd-Barron an ever-lasting recognition in the banking world and paved the way for hi-tech banking techniques, online bank accounts, Personal Identification Number (PIN) and chip security technology. The four-digit internationally accepted standard PIN was also invented by him. Earlier, he had a six-digit Army serial number in his mind but later his wife suggested for a shorter PIN as it would be easy to remember. Finally in 1967, the first ATM that dispensed paper currency round the clock (24 hour basis) was unveiled. The ATM was installed outside a Barclays bank in North London. The ATM machine accepted and generated money through cheques impregnated with certain chemicals. A mild radioactive substance, Carbon 14 was used for detection by the machine. Once the PIN was given, the machine gave out the cash. This radioactive substance had no ill effects on the health of users and Shepherd-Barron claimed that a user would have to

eat about 136,000 cheques to suffer any kind of ill-effects. Reg Varney, a famous TV sitcom popular became the first person to use the ATM in the year 1967 and withdrew about 10 dollars. The amount seems too less for us, but this money was enough for a complete night out spent on the tiles in London, inclusive of dinner, drinks, a show and a taxi-ride back to home. While this prototype device originated by Shepherd-Barron had started functioning, various parallel developments were happening in different parts of the world. The same website further shows that, an American engineer Donald Wetzel of Docutel engineered the Docuteller ATM which was declared as the first modern 21 magnetic stripe machine. It recognized magnetically encoded plastic (credit cards) and not the usual paper cheques.

The development of ATM has gone through many stages; it started from its baby stage in the late 1930s and then geared up for longer runs in the 1960s, and finally a matured and stable stage that we see today. Undoubtedly, most of the ideas and patents contributed for makeover of the ATM from time to time form the backbone of what was initiated as “holes in the wall”.

Today, ATMs hold a strong foothold in the world, offering everyone a better access to their money, be it in any corner of the world. There are about 1.8 million ATMs in use around the world with ATMs on cruise and navy ships, airports, newsagents and petrol stations. ATMs too have been categorized as on and off premise ATMs. On Premise ATMs are capable to connect the users to the bank with multi-function capabilities. Off premise, ATM machines on the other hand are the "white label ATMs" and are limited to cash dispense.

The developments have not stopped; the contactless technology is on its rise. The same website concludes that Shepherd-Barron continued to take inimitable and lively interest

in technology well even in his old age and had foreseen a future where plastic cards too would be numbered. For his excellent and unforgettable contributions to financial technologies, Shepherd-Barron was offered the OBE award in the year 2005. In the year 2010, he took his last breath and left behind his legacy of technological advancements.

2.4 ATM USAGE

In Ghana to encourage the use of ATM and smart cards the government has introduced ezwich an interbank payment system which will make it possible for customers of one bank to use other banks ATM to make cash withdrawals. When the installation of the system becomes complete, customers from one bank can withdraw monies from other banks ATMs e.g. An Access Bank customer can withdraw cash from an ATM belonging to Merchant Bank, Ecobank, Ghana Commercial Bank, Stanbic Bank, Zenith Bank etc by the use of the biometric smartcard or the ezwich and vice versa. Although the software meant for the common switch has been designed and demonstrated to all the banks, not all the banks in Ghana including Access Bank have configured their ATM for this service (<http://www.iflr1000.com/legislationguide/192/the-e-zwich-electronic-clearing-and-payment-system.html>). It is expected that the common ATM usage would ease sufferings of customers who travel long distances to withdraw monies at their banks. People who are illiterate usually find it difficult to operate the ATM because it requires reading out instructions; this is in line with the study carried out by Khan when he stated in his findings that technical complexities and lack of knowledge are the major disadvantages of the ATM usage (Khan, 2010). Some customers are also reluctant to use the ATM because they are not aware of the charges and this also is in agreement with a study done by Bhatta (2011) whose findings in Nepal showed that over 50% of

his study respondents were unaware of the cost and service charges of the ATM use. With the growth in literacy levels, there have been growing and changing needs and expectations of consumers which has resulted in them demanding a wider range of products and services at more competitive prices and the use of more efficient and convenient channels (Kassim,2006). Hone et al. (1998) found that although the world has witnessed a successful and widespread use of the ATM, a significant proportion of bank customers are not using it or experience difficulties when interacting with it. To address this trend they suggested that speech guiding technology should be incorporated in the ATM to encourage customers patronize its services.

2.5 BENEFITS ASSOCIATED WITH THE USE OF THE ATM

According to the website <http://kalyan-city.blogspot.com/2011/02/automated-tellermachine-atm-advantages.html>, most modern ATMs have the following benefits.

- a. ATMs provide 24 hours service: ATMs provide service round the clock enabling bank customers to make cash withdraw up to a certain limit, depending on the daily withdrawal limit set up by their bank.
- b. ATMs gives convenience to bank's customers: ATMs provide convenience to the customers. Now-a-days ATMs are located at convenient places such as within the bank premises(on site ATMs) and away from the bank premises(off site ATMs) , such as at the air ports, super markets, fuel filling stations, shopping malls et cetera (etc).
- c. ATMs reduce the workload of bank staff: ATMs reduce the work pressure on bank staff and reduces queues in bank premises.

- d. ATMs provide service without any error: ATMs provide service without error, the customer can obtain exact amount of cash they request.
- e. ATMs are very beneficial for travelers: ATMs are of great help to travelers because they need not carry large amount of cash with them. They can withdraw cash from any city or state, across the country and even from outside their country with the help of ATM.
- f. ATMs may give customers new currency notes: Customers may get brand new currency notes from ATMs. The monies loaded into ATMs are often new and intact, this is because torn and soiled monies normally jam the machine.
- g. ATMs provide privacy in banking transactions: ATMs provide privacy in banking transactions to the customer. He/she will not be shy to withdraw a very small amount of money from the machine as compared to withdrawing that same amount of money from the banking hall teller.
- h. ATM technology has reduced paper work because it does not require a customer to fill cash withdrawal slips or cheques in order to withdraw money. This is supported by William et al, (2005) findings that application of technology in banking has offered opportunities for the reduction of both paper and people.

2.6 PROBLEMS ASSOCIATED WITH THE USE OF THE ATM

Although ATMs provide an extremely useful service to bank customers, at times they can be very frustrating to use and therefore there is a lot of room for improvement in the interface design. The interface enables communication between the user and the machine. Therefore good user interface design is imperative for high usability levels.

Often there are problems or inconveniences experienced when using an ATM. Some of these problems include:

- a. Network problems- The ATM relies on the bank communication network hence when the bank communication network goes off line the ATM services become unavailable for customers use.
- b. Inability to see the ATM screen well: This depends on the location of the ATM in relation to the position of the sun. At times it can be difficult to view the contents of the ATM menu.
- c. Wrongly inserting the ATM card: This problem is more common with new ATM users who are not familiar with their new card and the ATM.
- d. Getting the required amount of money: Some ATM's may not offer the user the required amount of money they want on the initial cash withdrawal screen. The user will then have to use a few more key strokes to select the required amount (e.g. to withdraw GHC55.00 the user might have to select the „other amounts“ option then type in „55“ using the keypad and then press „enter“). The daily limit on the ATM also becomes problematic for customers needing monies which exceed the set limit.
- e. Understanding how to perform operations: Some ATM users find the instructions on how to perform operations quite difficult to understand. Often the ATM card is returned to the user while further operations are required and thus the user would have to re-insert his/her ATM card and these further increases the time spent at the ATM.
- f. Waiting in the queue to use the ATM: If users ahead of you in the queue experience difficulties in using the machine, this will increase the time waiting in the queue.

- g. ATM charges: Some banks also charge their customers whenever they use the ATM to make cash withdrawal.

2.7 SERVICE DELIVERY

The service delivery in the world has been changed significantly by technology. This is supported by Humphrey (1997), views that the role of technology in today's international financial community has changed significantly. ATMs have made banking services easy for bank customers; Cox (1992) wrote that the ATM can handle normal cash routine enquiries such as cash withdrawal, funds transfer from one account to the other, account statement request, account activity enquiry and others. In some developing countries and developed countries customers can use their VISA and MasterCard branded ATM cards to transact banking services with other compliant VISA or MasterCard branded ATMs. Lovelock (1996) stated that the ATM technology customizes service offerings, reduces waiting time for customers, serves as an alternative channel for service delivery and provides vital information needed by customers in the shortest possible time. The ATM consists of three very important parts, namely the hardware, software (the running program) and the communication modules for the transaction processing to be completed. In order for a bank to have an uninterrupted ATM service operation, it must have a very efficient internet service provider, reliable electric power supply from both the national grid and stand by generators and modern ATM hardware and software. The ATMs are normally installed both within and outside the bank premises such as fuel filling stations, shopping malls, restaurants, airports, school campuses etc. The ATM provides uninterrupted 24 hour service to the bank customers. Some modern ATMs have incorporated features such as

biometric technology which involves obtaining ATM services by the use of finger prints of the account holder other than the use of ATM cards. This technology provides extra security to the customer as without the customer biometric data, transactions on his/her accounts via the ATM would not be possible. Most modern ATMs are also now incorporated with cash deposit features as well as utility payment features such as cellular talk time top up, water and electricity payment for prepaid customers. The ATM screen can also serve as an advertising space for banks to advertise their products. Customers are the life blood of every company, without them most companies will fail to exist; therefore the need to improve service delivery is a must. Unfortunately pursuing the highest level of services does not come cheap. In the service industry, customers perceive that the quality of a company is very essential to the company's profitability. Gronroos (1990) suggested that perceived service quality is as a result of an evaluation process in which customers compare expected perceptions of service delivery and its outcomes with what they actually expected to receive. Mass generation and delivery of services are very difficult. This can be seen as a problem of inconsistent service quality. Both inputs and outputs to the processes involved in providing services are highly variable, as are the relationships between these processes, these makes it difficult to maintain consistent service quality. Human resource management is very important in service delivery; the human factor is often the key success factor in service economies. Demand can vary by season, time of day, business cycle, etc. There is also consumer involvement as most service provision requires a high degree of interaction between the service consumer and the service provider. The combined services of both the Automated and human tellers imply more productivity for the bank during banking hours. Also, it saves customers time in service delivery as alternative to queuing in bank halls, customers can invest such time saved into other productive activities.

ATMs are a cost-efficient way of yielding higher productivity as they achieve higher productivity per period of time than human tellers. Furthermore, ATMs continue working when human tellers stop and thus there is continual productivity for the banks even after banking hours.

In various studies the relationship between service quality and customer preference loyalty had been examined (Boulding et al, 1993; Cronin and Taylor, 1992). In their study Cronin and Taylor (1992) focused solely on repurchase intentions. Whereas Boulding et al. (1993) focused on the elements of repurchasing as well as the willingness to recommend. In the study by Cronin and Taylor (1992), service quality did not appear to have a significant positive effect on repurchase intentions (in contrast to the significant positive impact of satisfaction on repurchase intention), whereas Boulding et al. (1993) found positive relationships between service quality and repurchase intentions and willingness to recommend.

2.8 WHO IS A CUSTOMER

A customer is the most important visitor on our premises. He is not dependent on us. He is not an interruption to our work. He is the purpose for it. He is not an outsider on our business rather he is part of it, we are not doing him favor by serving him rather he is doing us favor by giving us an opportunity to do so. Wasswa (2003), Pg 35. He further described a customer as one that enables the organization to exist. They are the purpose of any business.

In my own view, I believe that, customers are the heart, the life and the soul of our businesses, without them we can't hold even for a second to exist in business. Hence they should be accorded utmost respect and care when rendering service to them.

2.9 CUSTOMER SATISFACTION

Customer satisfaction has been defined by many authors. Oliver (1980) defined customer satisfaction as the product of the accumulated experience of a customer's purchase and consumption. Porter and Miller, (1985) defined customer satisfaction as a post consumption evaluation that meets or exceeds expectations. Cacioppo (2000) defines Customer satisfaction as the state of mind that customers have about a company when their expectations have been met or exceeded over the lifetime of the product or service as quoted by MALCOLM (2008). Khirallah (2005) defines customer satisfaction as; a customer's perception that his or her needs, wishes, expectations, or desires with regard to products and service have been fulfilled. Consumer satisfaction in short can therefore be defined as an evaluative process that contrasts pre-purchase expectations with the actual perceptions of performance during and after consumption experience. Increased customer expectations have created a competitive climate whereby the quality of the relationship between the customer and bank has taken on a greater significance in some cases than the product itself. (Musiime and Biyaki, 2010). Krishnan et al (1999). Point out that, the banking industry strives to succeed by putting the topic of rapid and changing customers needs to their agenda. This can be achieved through good customer care and offering attractive services or products that other competitors may not offer. Therefore, customer satisfaction is seen as a key performance indicator within a business. The concept of customer satisfaction occupies a central position in marketing and practice (Cardozo, 1965). Customer satisfaction is a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance or outcome in relation to his or her expectations. (Musiime and Biyaki, 2010).

According to the website http://en.wikipedia.org/wiki/Customer_satisfaction, in a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy. When a brand has loyal customers, it gains positive word-of-mouth marketing, which is both free and highly effective. Therefore, it is essential for businesses to effectively manage customer satisfaction. To be able to do this, firms need reliable and representative measures of satisfaction. The same website shows that in researching satisfaction, firms generally ask customers whether their product or service has met or exceeded expectations. Thus, expectations are a key factor behind satisfaction. When customers have high expectations and the reality falls short, they will be disappointed and will likely rate their experience as less than satisfying. For an organization to be profitable and overtake its competitors and have enhanced customer loyalty, it must focus on improving its customer satisfaction. In order to achieve this, customer feedback must be taken very seriously. Customer satisfaction can be received by feedback using suggestion boxes, toll free telephone lines, electronic mails, observations etc. Organizations can surprise customers by calling to congratulate them on their birthdays, wedding days etc. Organizations can take advantage of the satisfaction of their products by their consumers to increase the price of their products. The level of satisfaction can vary depending on other options the customer may have and other products against which the customer can compare the organization's product. Work done by Parasuraman, Zeithaml and Berry (Leonard L) between 1985 and 1988 provides the basis for the measurement of customer satisfaction with a service by using the gap between the customer's expectation of performance and their perceived experience of performance.

In summary, Customer Satisfaction is the actual meeting of customer's expectation after he or she has completed consuming a product or service.

2.10 IMPORTANCE OF CUSTOMER SATISFACTION

Customer Satisfaction as defined is simply, the meeting or even exceeding of a customer's expectation after the use product. The outcomes of satisfying a customer are:-

Customer loyalty- LOYAL customers are those who have the enthusiasm about the brands or products they use. The more enthusiastic a customer is, the higher the profit contributed to the brand (MALCOLM 2008).

Musiime and Biyaki,(2010). Loyalty is a combination of intentional repurchase behavior and psychological attachments of a customer to a particular service provider. The fundamental assumption of all the loyalty models is that keeping existing customers is less expensive than acquiring new ones. In summary, Loyalty is customer's demonstration of faithful adherence to an institution despite the occasional errors. Thus satisfying a customer is very paramount to organizations existence. **Customer retention-** Customer Retention is the ability to hold on to customers over time, Joseph and Stone (2003). Customer retention is the activity that the selling organization undertakes to reduce customer account defections. It can also be described as a series of actions that the selling organization undertakes to reduce defections. Musiime and Biyaki, (2010). Ganesh et al., (2000)., observed that, longterm, customers become less costly to serve due to the bank's greater knowledge of the existing customer and to decrease serving costs. They also tend to be less sensitive to comparative marketing activities (Czepiel, 1990). Losing customers not only leads to opportunity costs because the reduced sales, but also to an increased need for attracting new customers which is five to six times more expensive than customer retention (Joseph and Stone, 2003).

2.11 THE RELATIONSHIP BETWEEN ATM USE AND CUSTOMER SATISFACTION

Earlier research by Brownlie (1989) has recommended that some consumers have positive attitudes towards ATMs based on dominant perceptions of convenience/accessibility/ease of use. As observed by Malcolm (2008). On the other hand, Reichheld and Sasser (1990) have recognized the benefits that customer satisfaction delivers to a bank. For instance, the longer a customer stays with a bank the more utility the customer generates. This is a result of a number of factors relating to the time the customer spends with a bank. Without usage of technology the banking sector cannot provide customers with a satisfactory service (Patricio et al., 2003). Effective service delivery is a new or significantly improved service concept that is taken into practice. Musiime and Biyaki,(2010). According to, Patricio et al. (2003) customers will use different service delivery systems dependent on their assessment of each channel and how it contributes to the overall service offering. Hence service satisfaction will not merely be based on isolated service encounters and experiences but rather on the overall feelings of satisfaction. With automated teller machines networks already in place in most of the urban areas, the drive is now focused towards the rural areas where the use of automated teller machines is still uncommon.

Musiime and Biyaki,(2010).

2.12 PREVIOUS RESEARCH EFFORTS

Researches on the ATM as an unprecedented means of delivering financial services are one of the most championed in recent years across the globe. Haddan and Almahmeed (1992), Marshall and Heslop (1988) and Swinyard and Ghee (1987) studied Kuwaiti, Canadian and Southeast Asian population respectively and all achieved an unswerving

results of adopter characteristics of ATM, wherein ATM users tend to be young and have above average incomes and at least some high school education. The mini-survey conducted by eShekels and Taube in 2006 and 1988 respectively yielded similar results.

Also, Lee and Lee (2000) investigated the diffusion of various electronic banking technologies, such as ATMs, debit cards, smart cards, direct deposit, and direct payment, along with the characteristics of adopters and non-adopters based on the DOI theory. They used the 1995 Survey of Consumer Finances and discovered that more educated, affluent and younger consumers who were likely to communicate with professional information providers tended to adopt electronic banking technologies more readily than their counterparts. Despite this, the specific factors that described adopters and non-adopters varied across different types of banking technologies.

Di Angeli et al. (2002) looked at technology adoption in different cultural contexts, analyzing the relationship between Hoffstede's cultural value dimensions and ATM's adoption in urban India. They proposed that the underlying inhibitors to ATM adoption in India were not intrinsically different from those determined earlier in Europe and North and South America. These inhibitors could be traced back to a few main factors, such as feelings of inadequacy, preference for human contact, lack of need and safety concerns. They believed that those who used ATM did so because they had a need for it, perceived it was easy to use, felt safe using it, and had positive attitude towards technology in general. These reasons appeared to be caused by different factors in different contexts due to different cultural values. In India, Di Angeli et al. (2002) stated that the feeling of inadequacy was the result of a strong value dimension expecting different access to resources as a function of people's social status. The long-term

orientation of Indians explained why they did not mind queuing to access basic financial services.

In 2004, Darch and Caltabiano explored the relationship between demographic, usersituational, attitudinal variables and ATM use in an Australian sample of older adults. These adults were Volunteers aged 60 years and above, who conducted their own banking transactions. Technology, perceived control and perceived user comfort were found to have an independent significant effect on ATM usage. Age, education, attitudes and user-situational variables were found to be related to ATM use, only technology experience, perceived user comfort and control were found to be determinants of ATM use. In 2004 also, Helmut studied the Impact of ATM transactions and cashless payments on cash demand in Austria. The aims of this study are twofold: to determine the levels of cash inventories held by Austrians and to examine how ATM transactions and cashless payments affect their demand for cash. The key results of this study are based on survey data on the cash withdrawal habits of Austrians aged 14 and over. The results suggest that the cash held by this group of individuals for transaction purposes accounts for only a relatively small share of the total cash in circulation (approximately 10%). Furthermore, it can be seen that individuals who use ATMs withdraw cash more frequently and consequently hold significantly smaller amounts of cash than individuals who do not use ATMs. The study also deals with cashless payments, which were found to have had an impact on the use of cash: the share of cash payments has fallen since 2000 (projections suggest a decline of some 6 to 7 percentage points from 2000 www.ccsenet.org/ijbm International Journal of Business and Management Vol. 7, No. 7; April 2012 to

2002). This development is attributable primarily to robust growth in debit card transactions. Despite the rise in cashless payments, currently the share of cash payments (in value terms) is likely to be above 70%, so that cash remains by far the most important means of payment in Austria. The results of this study therefore show that ATM transactions and the increased use of cashless payments have had a significant impact on cash demand in Austria and will probably continue to do so in future. A similar study by Kenneth and Neil (2005) yielded similar results.

Through archival research, Batiz-Lazo and Barrie (2005) investigated the impact of the introduction of Automated Teller Machines (ATM) in British retail banking. They argued that during the 1990s, Information Technology in banking (as measured by ATM) led to reduced operating costs, coupled with increased output (number of transactions) that resulted in greater efficiency. They concluded that the introduction of ATM was profitable for banks as well as customers. Their study indicated that banks' adoption of ATM was in overall, beneficial for banks.

Heli (2006) studied the effects of the Automated Teller Machine (ATM) network market structure on the availability of cash withdrawal ATM services and cash usage. Using a unique data set on 20 countries including Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, UK and USA for the period 1988–2003, he found that monopolization of the ATM network market structure is associated with a smaller number of ATMs and that the influence of the number of ATMs on cash in circulation is ambiguous.

Santiago and Francisco (2008) explored the interaction between Automated Teller Machines (ATMs) and Point of Sales (POS) devices as well as the effects of these interactions on the overall demand for currency in Australia. It was found that the growth of ATMs negatively affect POS adoption which, in turn, suggests that the promotion of cards relative to cash is diminished by the co-existence and joint promotion of these two rival technologies. Additionally, the researchers provided estimates of the effects of these technologies on the demand for currency, showing that POS devices and higher debit and credit POS transactions may significantly reduce the demand for currency and offset the negative effects that the deployment of ATMs and ATM usage may have on the demand for currency.

Wole and Louisa (2009) tested the attributes of the theory of diffusion of innovation empirically, using Automatic Teller Machines (ATMs) as the target innovation. This study which was situated in Jos, Plateau state, Nigeria examined 600 respondents and found that attitudinal dispositions significantly influence the use of ATM.

Muhammad (2010) investigated the significant dimensions of ATM service quality and its effect on customer satisfaction in Pakistan. He used questionnaire to collect the data from a convenience sample of 500 customers of multinational and national banks. Regression results indicated that convenience, efficient operation, security and privacy, reliability and responsiveness are significant dimensions of ATM service quality and that ATM service quality positively and significantly contributes toward customer satisfaction.

Stuart E. Weiner (1999) pointed out that the total number of ATM transaction has more than doubled over the last ten years and is estimated to reach near 11 billion and total number of ATM terminals in United States has tripled over last ten years. This shows that ATM cards have become another most popular non cash instruments in US and its popularity has been explosively increasing throughout the world.

In another article James J. Mcandrew (2003) talked about the various utilities of ATMs which has given world wide popularity. The utilities include withdrawal of cash as per convenience of the customers than during the banking hours at branches. Besides providing off time and off shore services, there is reduction of cost of servicing.

Shastri (2001) analyzed the effect and challenges of new technology on banks. He found that technology has brought a sea change in the functioning of banks and use of ATMs has increased with the passage of time.

Researchers have also identified many different dimensions of ATM service quality. Service quality is an important factor to attract ATM users. Moutinho (1992) established that ATM facility resulted in speed of transactions and saved time for customers. Lovelock (2000) identified secure and convenient location, adequate number of ATM, user-friendly system, and functionality of ATM. Davies et al., (1996) examined the factors influence customers satisfaction about ATM service quality. These factors include using costs and efficient functioning of ATM. Joseph and Stone (2003) examined the United States customers' perception of ATM quality and found that user-friendly, convenient locations, secure positions, and the number of ATMs provided by the banks are essential dimensions of ATM service quality. In a case study

of Botswana, Mobarek (2007) established speed of operation, and waiting time as the important predictors of ATM service quality. The better service quality is provided, the more attractive the

ATM users want to open new accounts.

In Ghana, Nana Yaw Asabere, Richard Opoku Baah and Andrew Adekunle Odediya (IT Officer, Ghana Commercial Bank Ltd) March 2012, focused on Measuring Standards and Service Quality of Automated Teller Machines (ATMs) in the Banking Industry of Ghana.

Omari, Richard Kwaku Bamfo September 2012, assessed the use of Automated Teller Machine (A.T.M) of Barclays Bank Ghana Limited Akim Oda Branch. Nana Kwame Gyamfi and Nana Yaw Asabere June 2013, looked at enhancing the Security Features of Automated Teller Machines (ATMs).

From the past research efforts, a lot of work have been done on ATMs from the diffusion and adoption of ATMs to the assessment of its usage to enhancing its security to the quality of service provided by these ATMs and to exploring its positive and negative influences on the community. These researches have been done in different countries and in different banks. However, one area that remains unexplored is assessing the performance of ATMs in Access bank Ghana Ltd as ATM is one of the bank's main centers of attention. This study therefore strives to fill this gap.

CHAPTER THREE

RESEARCH METHODOLOGY AND ORGANISATIONAL PROFILE

3.1 Overview of Methodology

This chapter examines the research methodology adopted in this thesis. The chapter discusses the research design, the population and the sample and sampling technique of the study. The chapter then outlines the reasons for the adoption of the case study method. It also provides an overview of the data collection methods used for the thesis, as well as the means used to analyse the data. The last section of the chapter discusses the validity and reliability issues that enhance the quality standard of the research.

3.2 Research Design

According to Polit et al. (2001) the research design is an overall plan for conducting the study in order to answer the research question. The research design indicates the steps followed in conducting research. The current descriptive study employs qualitative forms of data to achieve its objectives. The qualitative approach involved gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Hyde, 2000). It also uses visual aids such as graphs and charts to aid the reader in understanding the data distribution.

The study also adopted a case study approach to investigate the reasons underlining the low patronage of ATM services at Access Bank Ghana Limited. A case study is „an empirical enquiry that investigates a contemporary phenomenon within its reallife context, especially when the boundaries between phenomenon and context are not clearly evident“ and it „relies on multiple sources of evidence“ (Yin, 1994). This study

is limited to all the branches of Access Bank Ghana Limited in the Kumasi Metropolis. Though case studies typically combine data collection techniques such as interviews, observations, questionnaires, documents and text analysis; this study employs a structured questionnaire.

3.3 Population of the Study

A population is a group of individuals, persons, objects, or items from which samples are taken for measurement (Saunders et al., 2009). Target population is the entire group of individuals about whom you want to gather information. To design a useful research project, there is the need to be specific about the size and location of your target population. Based on this, the targeted population for this research comprised all the customers of the four branches of the Access Bank Ghana Limited (ABGL) in the Kumasi Metropolis. The Alabar branch of Access Bank Ghana Limited was ignored in the study because is yet to start full operation. For this study, account holders of ABGL are used as a proxy of customer base. ABGL as at March, 2015 had account holders of 14,238 in the four branches in the Kumasi metropolis. Therefore, the study has a defined target population size of 14,238 of account holders of the Access Bank Ghana Limited as at March, 2015. Based on this defined size of account holders, the study calculates the appropriate sample size of the customers using the deVaus (2002) sample size proportion formula approach as shown below:

$$n = \frac{N}{1 + N \left(\frac{\alpha}{1 + 14,238 \cdot 0.10} \right)}$$

$\frac{14,238}{1 + 14,238 \left(\frac{0.10}{1 + 14,238 \cdot 0.10} \right)}$

$n = 99$

Account Holders of ABGL

n = Sample size

N =Population α

=Error Level

Table 3.1: Population and Sample Distribution of Customers of ABGL

Branches of Access	Account	%	Sample
Bank	Holders		Distribution
Asafo	4,097	28.8	29
Adum	5,358	37.6	37
Suame	2,353	16.5	16
Amakom	2,430	17.1	17
Total	14,238	100.0	99

Source: Asafo Branch of ABGL, 2015

3.4 Sample Size and Sampling Techniques

For the purpose of this study, the four branches of the Access Bank Ghana Limited in the Kumasi metropolis were sampled. The financial institution was sampled based on the purposive non-probabilistic sampling procedure. The Access Bank Ghana Limited was chosen because of its great financial performance among the many financial institutions in the Kumasi metropolis, and the management's willingness to grant the needed information for the study. To begin with, two-stage sampling procedures were employed. The first stage involved the stratification of the account holders of Access Bank Ghana Limited in the Kumasi Metropolis under the four major branches of the bank. The total sample size of the 99 account holders were distributed among the four branches based on the proportion of their size in the total account holding population of the bank. In the second stage, a convenience sampling method was employed to survey all the allotted sample size for each of the four branches of Access Bank

Ghana Limited in the Kumasi Metropolis. The customers on wait were approached to assist in the administration of the questionnaires. The sample distribution of the account holders of the Access Bank Ghana Limited is shown in Table 3.1.

3.5 Data Collection

The study principally relied on primary data to achieve the specific objectives of the study. The primary data collection was collated using a structured questionnaire. Therefore, this section of the study describes various methods and techniques used during the data collection process. Additional information in the form of secondary data was also obtained from reviewing journals, publications and literature relevant to the subject matter of this research. Newspaper source and official policy documents with relevance to the subject were also consulted. The electronic data from various World Wide Web (www) sites were also employed extensively for up-to-date materials on the topic.

3.5.1 Questionnaire

The research depended on structured questionnaire for collecting data for answering the specific objectives of the study. The questionnaire was developed and built on both closed and open ended questions. The closed ended questions were used to test the rating of various attributes and this helped in reducing the number of related responses in order to obtain more varied responses. The questionnaire was selfadministered with the customers of the Access Bank Ghana Limited.

The questionnaire was developed for 99 account holders of the four operational branches of the customers of the Access Bank Ghana Limited in the Kumasi metropolis. The questionnaire was divided into five parts: (1) the first section had to do with the respondent's demographic characteristics such as age, sex, educational level, and years of experience with the Access Bank Ghana Limited; (2) the second section of the questionnaire provides items to determine the performance of both onsite and offsite ATMs; (3) the third section provides items to examine customers' knowledge on ATM services; (4) the fourth section determine customers perception on the benefits and problems associated with ATM services; and (5) the fifth section provides statements to determine the strategies customers and custodians prefer management of ABGL adopts in order to improve ATM services patronage. Most of the items or statements were measured through a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3.5.2 Pilot study

To maximize the reliability and validity of the questionnaire, questions generated from the interview was pretested on a sample of 20 customers of the Adum branch of UniBank in Kumasi. The participants were asked to fill out the initial surveys based on their knowledge and perception of ATM usage and the desired strategies to improve ATM usage. The initial survey took about five to ten minutes with each customer of the bank. The items and statements of the questionnaire were tested through reliability analysis. The reliability analysis produced Cronbach Alpha's of at least 0.754 for the constructs, and overall alpha value of 0.862. By administering the pre-test, the researcher ensured that the items measured in the study reflected actual interactions and

expectations from the respondents interviewed. Results from the pretest analysis showed that the respondents viewed some of the items as measuring the same constructs, which resulted in some minor changes in both the questions and the (wording of) items. It was decided to keep all items in the research so as to have contributions on a wider scale to see if these items indeed measured the same constructs from the respondent point-of-view.

3.5.3 Data Collection Procedure

Authorization was sought for the conduct of the research with the account holders of ABGL by sending an authorization letter to the Area Manager of ABGL in the Kumasi metropolis at the Adum branch. This authorization was necessary because the questionnaire was administered in banking environment of the four branches of ABGL in Kumasi. In accordance with the response received on the 5th of April, 2015, two months were granted for the administration of the questionnaire in the banking environment of ABGL. Therefore, to save time and reduce the level of inconvenience to bank, the researcher hired the services of three well trained enumerators to assist in the administration of the questionnaire. The questionnaires were responded by 82 account holders that visited the four branches of the ABGL in the Kumasi metropolis between 7th and 30th April, 2015 through a convenience non-probabilistic sampling technique. The total number of respondents therefore fell short of the total required sample size of 99, and hence gave a response rate of 82.8%.

3.6 Data Analysis

The collated primary data was processed and analysed using the Statistical Software Programme for Social Sciences (SPSS version 17). The research objectives were analysed descriptively. The descriptive analysis conducted involved the use of tabular analysis (percentages and frequencies), and mean values for discussing the key variables involved in the study. The perceived benefits ATM usage were ranked using relative importance index (RII) analytical tool, and the perceived challenges in the usage of ATM services were ranked using the Kendall's rank test.

3.7 Data Validity and Reliability

The reliability of a research instrument concerns the extent to which the instrument yields the same results on repeated trials. Although unreliability is always present to a certain extent, there will generally be a good deal of consistency in the results of a quality instrument gathered at different times. The tendency toward consistency found in repeated measurements is referred to as reliability (Carmines & Zeller, 1979). For this study, reliability of the constructs of the study was tested using the Cronbach's alpha. The reliability of the major constructs of the questionnaire tested gave overall Cronbach alpha value of 0.862.

Validity is defined as the extent to which the instrument measures what it purports to measure (Allen & Yen, 1979). Content validity pertains to the degree which the instrument fully assesses or measure the construct of interest. The questionnaire was carefully designed and tested with a few members of the population for further improvements. This was done in order to enhance its validity and accuracy of data to

be collected for the study. Experts and the opinion of two lecturers in the field of business administration were sought on the validity of the construct.

3.8 Ethical Consideration

De Vos (1998) defines ethics as „a set of moral principles which is suggested by an individual or group, is subsequently widely accepted and which offers rules and behavioural expectations about the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students“. Ethical issues considered in this study included the right of the banking institution and scientific honesty on the part of the researcher. The goal of conducting the research is to generate knowledge through honest conduct, reporting and publication of a research report. The researcher is aware that data should not be falsified nor manipulated in order to maintain the quality of the research and of the report (Burns & Grove, 1993). To accomplish this, a written consent was obtained from the Area Manager of ABGL in the Kumasi metropolis at the Adum branch, informing him of the purpose and design of the study. Furthermore, the researcher disclosed to the account holders of the four branches of ABGL that the study is purely meant to satisfy an academic requirement and not for any other reason. Respondents were not required to give their names in the interview and so confidentiality was observed.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESULT

This chapter presents and discusses the result of the study in an attempt to address the specific objectives of the study. The major areas the chapter discusses include respondent's background, the performance of the On-site and Off-site ATMs, customers utilisation of the ATM machines, customer's knowledge on the ATM services, the attitude of customers towards the usage of ATMs, customers perception on the benefits of ATM services and the challenges of customers in the usage of the ATM services of Access Bank Ghana Limited.

4.1 Socio demographic characteristics of the respondent

This section of the study examines the socio demographic characteristics of the surveyed customers of the Access Bank Ghana Limited (ABGL). The key socio demographic characteristics of the surveyed customers of the bank examined include gender distribution, age distribution, the highest level of education of the respondents, occupation and the monthly income of the respondents. The result of the section is presented in Table 4.1.

Table 4.1: Socio demographic characteristics of the respondent

Socio demographics	Frequency	Percent
Gender		
Male	57	57.6
Female	42	42.4
Total	99	100.0
Age of respondent		
Below 20 years	4	4.0
20-29 years	40	40.4

	30-39 years	37	37.4
	40-49 years	14	14.1
	50-59 years	2	2.0
	Above 50 years	2	2.0
Total		99	100.0
Highest level of education			
	No formal education	4	4.0
	Primary	2	2.0
	Middle school/JHS	8	8.1
	Secondary/SHS	18	18.2
	Tertiary	67	67.7
Total		99	100.0
Occupation			
	Unemployed	6	6.1
	Student/apprentice	19	19.2
	Farmers	2	2.0
	Businessmen/Traders	20	20.2
	Public servant	52	52.5
Total		99	100.0
Monthly income group			
	Less than GH¢ 200	6	6.1
	GH¢ 201-GH¢ 500	12	12.1
	GH¢ 501- GH¢ 1000	40	40.1
	Above GH¢ 1000	41	41.4
Total		99	100.0

Source: Field Survey, 2015

The result of table (4.1) shows that the majority (57.6%) of the surveyed customers of the Access Bank Ghana Limited were males whereas 42.6% were females. More so, the majority (40.0%) of the surveyed customers were in the age category of 20 to 29 years, whereas 37.4% were also in the age category of 30 to 39 years. However, 14.1% and 4.0% of the surveyed customers of the bank were below 20 years and between the age category of 40 and 49 years respectively. This finding is consistent with the study of Haddan and Almahmeed (1992) in Kuwaiti that showed that ATM users tend to be young. The majority (67.7%) of the surveyed customers of ABGL for the study have tertiary education whereas 18.2% also have secondary or SHS level of education. This

finding is consistent with the study of Shekels and Taube (2006) that showed that ATM users tend to have higher level of education. People who are illiterate usually find it difficult to operate the ATM because it requires reading out instructions; this is in line with the study carried out by Khan when he stated in his findings that technical complexities and lack of knowledge are the major disadvantages of the ATM usage (Khan, 2010).

Furthermore, out of the total surveyed respondents of the study, the majority (52.5%) were public servants, 19.2% were students or apprentice, 6.1% were unemployed, 20.2% were businessmen or traders and 2.0% were farmers. This therefore implies the inclusion of customers from diverse walks of life in the study. Out of the surveyed 99 customers of the bank, 6.1% have less than GH¢ 200.00 monthly income, 12.1% have between GH¢ 201 and GH¢ 500 monthly income, 40.1% have between GH¢ 501 and GH¢ 1000 and 41.4% also obtain more than GH¢ 1000 per month income. This high level of income per month could be attributed to their high level of education and their status as public servants. This finding is consistent with the study of Haddan and Almahmeed (1992) in Kuwaiti that showed that ATM users tend to be above average incomes.

4.2 Performance of onsite and offsite ATMs

In an interview with the Branch Service Heads of the five branches of the Access Bank Ghana Limited (ABGL), it was revealed that the bank has 38 on-site ATM machines and 15 off-site ATM machines. On the average, 430 customers visit these ATM machines for varying banking services per week. The services often patronized

by customers in the usage of ATM machines include cash withdrawals, pin change, mini statement, checking of balance and cardless withdrawals. The interviewees indicated that the on-site ATMs perform relatively better than the off-site ATM machines. Generally, the interviewees perceive the ATM services of the bank as quality and reliable with few challenges such as breakdowns that are frequently attended to. The key benefits of the ATM services to the customers of the bank as perceived by the interviewees include 24/7 availability of services, avoidance of long queues, convenience and privacy in banking. Moreover, the interviewees also perceive the bank to also benefit from the ATM patronage through income generation, becoming abreast with modern technology, enhancing the bank's competitive advantage, avoiding crowding in the banking halls and attraction of more customers. This finding is consistent with the study of Cabas (2001) that noted that income generation, avoidance of long queues, reduction in costs, satisfaction of customers and competitive advantage are some of the major benefits of the installation of ATM machines to the bank. In the phase of all these benefits, the interviewees indicated that there are a number of challenges that hinders the patronage of the ATM services including power outages, limited features to attract more customers and few off-site ATM machines.

The interviewees indicated that some of the major activities carried out by the bank to encourage ATM patronage among customers include frequent servicing of the ATM machines, free card for every individual account opened, free GH link cards to customers, low charges of GHP 30 to GH¢ 1, and limited increment. The interviewees further believe that the patronage of ATM services among the customer of the bank can be improved through the increase in the ATM points, provision of more reliable network

and invertors to reduce power outage problems, the need to have independent custodians for off-site ATMs and provide deposit taking ATMs and other features.

4.2.1 Customer's utilisation of ATM machines

This section of the study examines the usage of the ATM services of Access Bank Ghana Limited. It examines the type of ATM machine frequently used, the number of time the ATM machines are used per week, the number of minutes the ATM machines take to serve customers per transaction, and the number of times customers encounter breakdowns with ATM machines. The result of the section is presented in Table 4.2.

Table 4.2: Customer's utilisation of ATM machines

	Frequency	Percent
Use ATM machines for transaction		
Yes	99	100.0
No	0	0.0
Total	99	100.0
If yes, the type of ATM used most		
On-Site ATMs	78	78.8
Off-Site ATMs	21	21.1
Total	99	100.0
Number of times ATM machines is used per week		
1 time	6	6.1
2 times	30	30.3
3 times	25	25.3
4 times	10	10.1
5 times	24	24.2
More than 5 times	4	4.0
Total	99	100.0
Number of minutes ATM machine takes to serve customers per transaction		
1 minute	8	8.1
2 minutes	16	16.2
3 minutes	40	40.4
4 minutes	33	33.3

	5 minutes	2	2.0
Total		99	100.0
Number of times customers encountered breakdowns with ATMs per week			
	1 time	38	38.4
	2 times	24	24.2
	3 times	16	16.2
	5 times	17	17.2
	More than 5 times	4	4.0
Total		99	100.0
Amount charged per ATM transaction			
	Less than 50 pesewas	78	78.8
	50 pesewas- GH¢1	21	21.2
Total		99	100.0

Source: Field Survey, 2015

The result of table (4.2) shows that all the surveyed customers of Access Bank Ghana Limited use the ATM machine for several transactions. The type of the ATM predominantly used by the majority (78.8%) of the surveyed customers is the on-site ATM machines of the bank, whereas 21.1% also use the Off-site ATM machines of the bank. out of the total surveyed 99 customers, 30.3% uses the ATM services of the bank 2 times in a week, 25.3% uses the ATM services 3 times per week, 10.1% uses the ATM services of the bank 4 times per week and 24.2% of the customers uses the ATM services of the bank 5 times per week. The ATM machines are perceived by the majority (40.4%) of the surveyed customers of the bank to take 3 minutes per a transaction, whereas 33.3% believe it takes 4 minutes per transaction. This finding is consistent with the study of Lovelock (1996) that indicates that ATM machines hastens banking transactions and reduces waiting time for customers.

The result of table (4.2) further shows that 38.4% of the surveyed customer of the ABGL encounter ATM machine breakdowns once per week, 24.2% encounter breakdowns 2

times per week, 16.2% encounter breakdowns 3 times per week and 17.2% also encounter ATM machine breakdowns 5 times per week. the majority of the customers surveyed indicated that the amount charged per ATM transaction is less than 50 pesewas, whereas 21.2% indicated that they are charged between 50 pesewas and GH¢1 per transaction.

4.2.2 Frequency of employment of ATM machines in conducting transactions with ABGL

This section of the study discusses the frequency of various transactions carried out by customers of ABGL using ATM machines. The result of the section is descriptively presented in Table 4.3.

Table 4.3: Type of business often transacted using ATM

Type of Service	N	Min.	Max.	Mean	SD
Withdraw Cash	99	1.00	4.00	3.66	.73
Transfer of money from one account to another	99	1.00	4.00	1.43	.92
Request for mini statement	99	1.00	4.00	2.35	1.08
Inquire about available balance	99	1.00	4.00	3.44	.91
Recharge mobile prepaid cards	99	1.00	4.00	1.51	.92
Request for a cheque book	99	1.00	4.00	1.18	.68
Deposit money	99	1.00	4.00	1.25	.70
Deposit Cheque	99	1.00	4.00	1.12	.52

Rank: [1-Never, 2-Sometimes, 3-Often, and 4-Very Often]

Source: Field Survey, 2015

The result of the table (4.3) shows that the majority of the surveyed customers often withdraw cash using the ATM machines of ABGL as shown by the mean response value of 3.66. The mean response value of 1.43 however shows that the majority of the surveyed customers of ABGL never transfer money from one account to another through ATM machines. The mean response value of 2.35 shows that the majority of the surveyed customers of the bank sometimes request for mini statement using ATM machines. The mean response value of 3.44 shows that the surveyed customers of the bank often inquire about the available balance using ATM machines. The mean response value of 1.51 indicates that the majority of the surveyed customers of the bank sometimes recharge mobile prepaid cards using ATM machines. The mean response value of 1.18 indicates that the majority of the surveyed customers never request for a cheque book using ATM machines of ABGL. The majority of the surveyed customers of ABGL never deposit money with ABGL through ATM machines of the bank as shown by the mean response value of 1.25. The mean response value of 1.12 also shows that the surveyed customer of ABGL never deposit cheque with the bank through ATM machines. The findings of this section of the study are consistent with the study of Cox (1992) that showed that the ATMs can handle normal cash routine enquiries such as cash withdrawal, funds transfer from one account to the other, account statement request, account activity enquiry and others

4.3 Customer's Knowledge on ATM services

The knowledge of the surveyed customers of Access Bank Ghana Limited about ATM services is examined in this section of the study. The result of the section is presented descriptively in Table 4.4.

Table 4.4: Customer's Knowledge on ATM services

Type of Service	N	Min.	Max.	Mean	SD
ATMs can be used to withdraw Cash	99	1.00	5.00	4.78	.89
ATMs can be used to transfer of money from one account to another	99	1.00	5.00	2.58	1.39
ATMs can be used to Request for mini-statement	99	1.00	5.00	4.33	1.12
ATMs can be used to Inquire about available balance	99	1.00	5.00	4.72	.97
ATMs can be used to recharge mobile prepaid cards	99	1.00	4.00	1.82	1.15
ATMs can be used to request for a cheque book	99	1.00	5.00	1.61	1.03
ATMs can be used to deposit money	99	1.00	5.00	2.72	1.53
ATMs can be used to deposit Cheque	99	1.00	5.00	1.58	1.02
ATM withdrawals are free of charge	99	1.00	5.00	1.74	1.11
ATMs accept E-zwich cards	99	1.00	5.00	2.38	1.50
ATMs have a daily cash withdrawal limit	99	1.00	5.00	4.59	.99

Rank: [1-Highly Unaware, 2-Unaware, 3-No Idea, 4-Aware, 5-Highly Aware]

Source: Field Survey, 2015

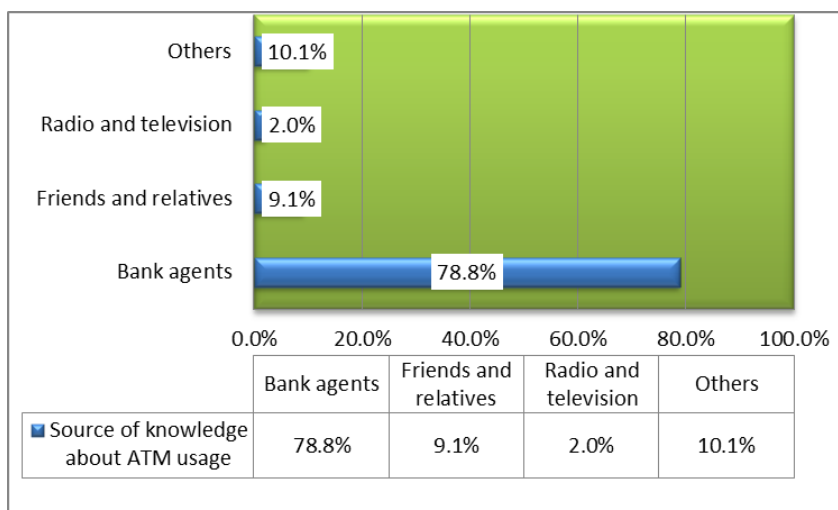
The result of table (4.4) shows that the majority of the surveyed customers of the bank are highly aware that ATM machines can be used to withdraw cash as shown by the mean response value of 4.78. the mean response value of 2.58 shows that the majority of the surveyed customers of the bank have no idea that ATMs can be used to transfer money from one account to another. The majority of the surveyed customers of the bank are aware that ATM machines can be used to request for mini-statement as shown by the mean response value of 4.33. The mean response value of 4.72 also shows that the majority of the surveyed customers of the bank highly aware that ATM machines can be used to inquire about available balance. The majority of the surveyed customers of the bank were however unaware that ATM machines can be used to recharge mobile prepaid cards as shown by the mean response value of 1.82. the majority of the surveyed customers were also unaware that ATM machines can be used to request for a cheque book as shown by the mean response value of 1.61.

The result of the table (4.4) further shows that the majority of the surveyed customers of the bank have no idea that ATM machines can be used to deposit money with the bank as shown by the mean response value of 2.72. the mean response value of 1.58 shows that the majority of the surveyed customers of the bank were unaware that ATM machines can be used to deposit cheque with the bank. the mean response value of 1.74 further shows that the majority of the surveyed customers of ABGL were aware that ATM withdrawals are not free of charge. Furthermore, the surveyed customers of the ABGL have no idea that ATMs accept of E-zwich cards. However, the mean response value of 4.59 shows that the majority of the surveyed customers of AGBL were highly aware that ATMs have a daily cash withdrawal limits. Consistent with these findings, Cox (1992) indicates that the ATMs can handle normal cash routine enquiries such as cash withdrawal, funds transfer from one account to the other, account statement request, account activity enquiry and others.

4.3.1 Source of Knowledge about ATM

The surveyed customer's knowledge about ATM services is examined in this section of the study. The result of the section is presented graphically in in Figure 4.1.

Figure 4.1: Source of Knowledge about ATM



Source: Field Survey, 2015

The result of Figure (4.1) shows that the majority (78.8%) of the surveyed customers of the Access Bank Ghana Limited were informed about ATM services through the bank agents, whereas 2.0% obtained information on the ATM services of the bank from the radio and television, 9.1% were also informed about the ATM services by friends and relatives and 10.1% also obtained information about the bank's ATM service from other sources. This therefore implies that the banking agents at the services points are the major source of knowledge about the usage of the ATM services of Access Bank Ghana Limited.

4.4 Attitudes towards the Use of the ATM

The attitude of the customers of ABGL towards the usage of ATM machines is discussed in this section of the study. The result of the section is descriptively presented in Table 4.5.

Table 4.5: Customers attitude towards the usage of ATM machines

Customers' Attitude	N	Min.	Max.	Mean	SD
I feel confident when using e-banking methods to access money	99	1.00	5.00	4.25	.87
I prefer dealing with the human teller	99	1.00	5.00	2.78	1.22
I would feel safe using ATMs	99	1.00	5.00	4.13	.80
I have a fear of losing my card	97	1.00	5.00	2.61	1.34
I am never sure it will work	99	1.00	5.00	3.03	1.21
I don't like things that are automated or computerized	99	1.00	5.00	2.36	1.34
I feel comfortable using technology	99	1.00	4.00	1.67	.85
I feel reluctant using other options than withdrawing cash	99	1.00	5.00	4.05	1.26

Rank: [1-Strongly Disagree, 2-Disagree, 3-No Idea, 4-Agree, 5-Strongly Agree]

Source: Field Survey, 2015

The result of table (4.5) shows that the majority of the surveyed customers of the ABGL agreed that they feel confident when using e-banking methods to access money as shown by the mean response value of 4.25. The mean response value of 2.78 indicates that the majority of the surveyed customers of the bank have no idea whether or not they prefer dealing with the human teller. The mean response value of 4.13 indicates that the majority of the surveyed customers of the bank agreed that they feel safe using the ATM machines of ABGL. However, the majority of the surveyed customers of the bank were not so bothered losing their ATM cards but have no idea whether ATM machines would work or not till they try a transaction. The mean response value of 2.36 implies that the majority of the surveyed customers of the bank do not like things that are automated or computerized. The surveyed customers also disagreed that that they feel comfortable using technology and this is not surprising due to the high level of level of illiteracy in Ghana. However, the majority of the surveyed customers of the bank agreed that they feel reluctant using ATM machines for other options than withdrawal of cash as shown by the mean response value of 4.05.

4.5 Customer's perception on the benefits associated with ATM services The perceptions of the customers of Access Bank Ghana Limited (ABGL) about the benefits of the usage of ATM services are discussed in this section of the study. To achieve this objective, the study employs the Relative Importance Index (RII) to examine the relative importance of each perceived benefit to the surveyed customers.

The result of the section is presented in Table 4.6.

Table 4.6: Customer's perception of the benefits of ATM machines

Attributes	Responses	RII
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	1	2	3	4	5	Weight	RII	Rank
ATMs speed up rate of service delivery	0	4	8	46	41	421	0.851	1 st
ATM is easily accessible	0	2	6	62	29	415	0.838	2 nd
Enhanced Privacy in banking	0	0	10	62	27	413	0.834	3 rd
ATM is suitable	0	4	6	71	18	400	0.808	4 th
ATM is user friendly	0	8	8	58	25	397	0.802	5 th
ATM is 24hr available	18	6	4	14	57	383	0.774	6 th
ATM is reliable	6	16	4	48	25	367	0.741	7 th
Cost of doing business with and through the banks is reduced	2	12	32	23	30	364	0.735	8 th
Improvement in the quality of monies dispense	2	28	16	31	22	340	0.687	9 th
ATM is risk free	0	46	27	11	15	292	0.590	10 th
ATM is relatively free	22	41	4	26	6	250	0.505	11 th

Rank: [1-Strongly Disagree, 2-Disagree, 3-No Idea, 4-Agree, 5-Strongly Agree]

Source: Field Survey, 2015

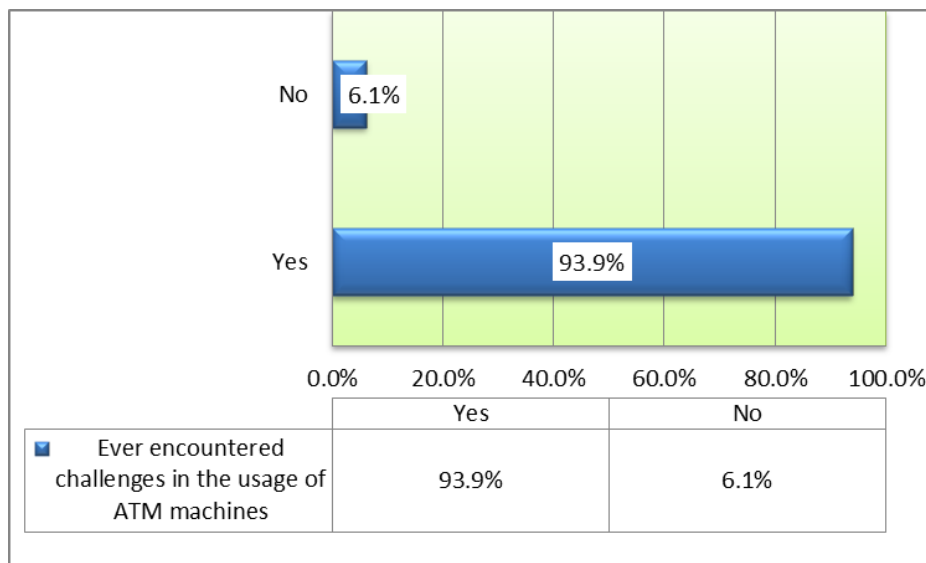
The result of the table (4.6) shows that the key perceived benefits of the usage of ATM machines based on the relative importance values include: (1) ATMs speed up rate of service delivery (RII = 0.851); (2) ATM is easily accessible (RII = 0.838); (3) Enhanced Privacy in banking (RII = 0.834); (4) ATM is suitable (RII = 0.808); (5) ATM is user friendly (RII = 0.802); (6) ATM is 24hr available (RII = 0.774); (7) ATM is reliable (RII = 0.741); (8) Cost of doing business with and through the banks is reduced (RII = 0.735); and (8) Improvement in the quality of monies dispense (RII = 0.687), in that order of ranking. These findings of this study is consistent with the study of Joseph and Stone (2003) examined the United States customers' perception of ATM quality and found that user-friendly, convenient locations, secure positions, and the numbers of ATM's provided by the banks are essential dimensions of ATM service quality.

However, ATM services been free or relatively free is not perceived as a benefit of the usage of ATM machines as these factors produced RII values less 0.599, the threshold value of importance as given in the study of Muhwezi et al. (2014).

4.6 Challenges of the usage of ATMs

This section of the study examines the challenges of customers in the usage of the ATM services of Access Bank Ghana Limited. The result of the section is descriptively presented in Figures 4.2 and 4.3 and the Table 4.7.

Figure 4.2: Ever encountered challenges in the usage of ATM machines

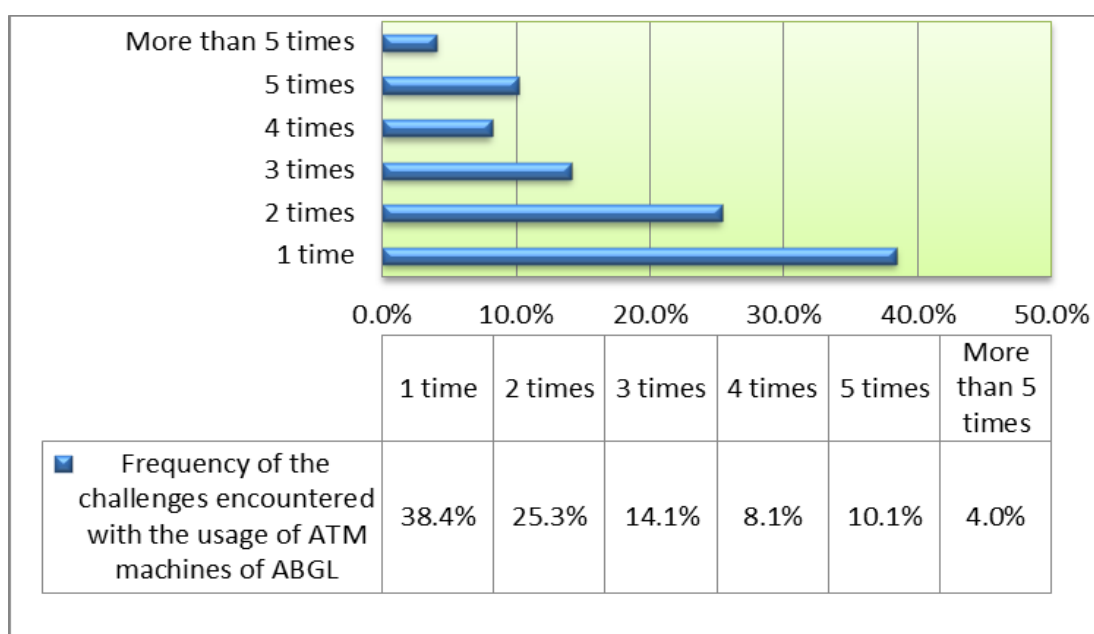


Source: Field Survey, 2015

The result of Figure (4.2) shows that the majority (93.9%) of the surveyed customers of the bank have ever encountered challenges in the usage of the ATM services of the bank whereas 6.1% are yet to encounter any form of challenge. Hone et al. (1998) found that although the world has witnessed a successful and widespread use of the ATM, a significant proportion of bank customers experience difficulties when interacting with it. The result of the Figure (4.3) shows that the majority (38.4%) of the surveyed

customers have encountered challenges with the usage of ATMs of the bank once. However, 25.3% and 14.1% of the surveyed customer have also encountered challenges with the usage of ATM machines 2 times and 3 times respectively.

Figure 4.3: Frequency of encountered challenges with the usage of ATM machines



Source: Field Survey, 2015

4.6.1 Ranking of the challenges of customers in the usage of ATM machines

This section of the study identifies and ranks the various challenges of customers in the usage of the ATM machines of Access Bank Ghana Limited. To achieve this result, the respondent or customers were presented with a list of 15 constraints usually reported in the literature as hindering the efficient and effective usage of ATM machines by customers. The task of each respondent was to indicate their level of agreement to the listed factors as challenges of customers in accessing the ATM services of ABGL. The

table 4.7 displays the mean ranks and by extension, the ranks of the challenges as adjudged by the 99 surveyed customers of ABGL.

Table 4.7: Challenges of Customers in the usage of ATM machines

Challenges	Mean Rank	Rank
Inability to withdraw bigger amount with the ATM	10.74	1 st
ATM cards sometimes stuck in the ATM	10.51	2 nd
ATM malfunction due to internet connectivity problems	9.80	3 rd
It avoids personal interaction	9.71	4 th
Fear to do business with ATM due to internet fraud	9.63	5 th
Regular break down	9.31	6 th
Frequent power outages	8.80	7 th
Low Knowledge in using technology facilities	7.11	8 th
PIN Change	6.89	9 th
Shortage of cash in ATM machine	6.88	10 th
Card locking	6.86	11 th
Lack of privacy to their information	6.76	12 th
Unsecured ATM location	6.03	13 th
Long queues	5.49	14 th
Long Time in Cash Dispensing	5.48	15 th

Source: Field Survey, 2015

The result of the table (4.7) was obtained following the non-parametric test for krelated samples in SPSS 17. The level of agreement between the 99 surveyed customers was tested using the Kendall's coefficient of concordance since there are three or more judges or customers surveyed.

The result of table (4.7) shows that the 13 critical challenges of customers in the usage of ATM machines in their order of ranking include: (1) Inability to withdraw bigger amount with the ATM (Mean Rank = 10.74); (2) ATM cards sometimes stuck in the ATM (Mean Rank = 10.51); (3) ATM malfunction due to internet connectivity problems (Mean Rank = 9.80); (4) It avoids personal interaction (Mean Rank = 9.71);

(5) Fear to do business with ATM due to internet fraud (Mean Rank = 9.63); (6) Regular break down (Mean Rank = 9.31); (7) Frequent power outages (Mean Rank = 8.80); (8) Low Knowledge in using technology facilities (Mean Rank = 7.11); (9) PIN Change (Mean Rank = 6.89); (10) Shortage of cash in ATM machine (Mean Rank = 6.88); (11) Card locking (Mean Rank = 6.86); (12) Lack of privacy to their information (Mean Rank = 6.76); and (13) Unsecured ATM location (Mean Rank = 6.03). However, the least ranked perceived challenges of the customers of ABGL in accessing ATM services included long queues and long time in cash dispensing as these factors are ranked 14th and 15th respectively.

Table 4.8: Kendall's Coefficient of Concordance

Test Statistics	
N	99
Kendall's W	0.732
Chi-Square (χ^2)	780.59
Degree Of Freedom	14
P-Value	0.000
a. Kendall's Coefficient of Concordance	

Source: Field Survey, 2015

The result of the table (4.8) shows that the Kendall's coefficient of concordance (W), testing the null hypothesis that there is no agreement among the 99 surveyed customers of ABGL with respect to how constraining the inventory of problems affect their usage of ATM machines was rejected at a 1% significance level. The degree of unanimity as measured by the W-statistics is about 73% since the score is zero for random ranking and 1 for perfectly unanimous ranking. the surveyed customers of Access Bank Ghana Limited can be said to unanimously agree that the most constraining factors to efficient usage of ATM machines are more related first to the inability to withdraw bigger

amount at a time with ATM machines and secondly to the ATM cards sometimes getting stuck in the machine and then to ATM malfunction due to internet connectivity problems.

4.7 Strategies to improve ATM services patronage

The potential strategies that can be employed by the Access Bank Ghana Limited (ABGL) to improve the ATM services patronage are discussed in this section of the study. to achieve this result, the study employs descriptive methods. The result of the section is presented in Table 4.9.

Table 4.9: Strategies to improve ATM service patronage

Strategies	N	Min.	Max.	Mean	SD	Rank
Provide reliable network	99	2.00	5.00	4.70	.68	1 st
Educate customers on ATM usage	99	2.00	5.00	4.60	.73	2 nd
Improve security of ATM usage	99	1.00	5.00	4.60	.78	2 nd
Increase ATM points	99	1.00	5.00	4.57	.82	4 th
Reduction on ATM service charges for savings account	99	3.00	5.00	4.56	.70	5 th
Increase the maximum cash that can be withdrawn per day	99	1.00	5.00	4.39	.90	6 th
Improve privacy in ATM usage	99	2.00	5.00	4.36	.89	7 th

Rank: [1-Strongly Disagree, 2-Disagree, 3-No Idea, 4-Agree, 5-Strongly Agree]

Source: Field Survey, 2015

The result of the table (4.9) shows that the majority of the surveyed customers of ABGL strongly agreed that the bank needs provides reliable network for the provision of ATM services so as reduce the level of connectivity problems in order to improve the patronage of ATM services by customers as shown by the mean response value of 4.70. The mean response value of 4.60 also indicates that the majority of the surveyed customers of the bank believe that the bank needs to provide some level of education to

customers on the usage of ATM machines to enhance their patronage of the machine for many other services other than withdrawal of cash and checking of balance. The surveyed customers also strongly agreed that the bank needs to increase the number of ATM points to make the service more accessible in order to improve patronage among customers as shown by the mean response value of 4.57. The mean response value of 4.60 also indicates that the majority of the surveyed customers of ABGL require the security system of ATM usage to be improved to reduce the level of fraud associated with its usage.

The result of table (4.9) further shows that the majority of the surveyed customers of the bank strongly agreed to reduction on ATM service charges for savings account to be a potential strategy to improve the usage of the service among customers of the bank as shown by the mean response value of 4.56. This strategy is imperative because some customers are reluctant to use the ATM because they are not aware of the charges and this also is in agreement with a study done by Bhatta (2011) whose findings in Nepal showed that over 50% of his study respondents were unaware of the cost and service charges of the ATM use.

The mean response value of 4.39 shows that the majority of the surveyed customers agreed that increase in the maximum amount of cash that be withdrawn at a time per day is potential strategy to improve the patronage of the usage of ATM machines among customers of ABGL. The mean response value of 4.36 also indicates that the majority of the surveyed customers agreed that improvement in the privacy of the usage of ATM machines can be adopted as a key strategy to enhance the patronage of ATM machine usage among customers.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This chapter presents a summary of the findings of the study, draws conclusions based on the key findings and also makes recommendations and suggests areas for further research.

5.1 Summary of findings

The study sought to determine the reasons underlining the low patronage of ATM services at Access Bank Ghana Ltd through the achievement of several objectives including: (1) determine the performance of both onsite and offsite ATMs; (2) examine the customers' knowledge on ATM services; (3) determine customers perception on the benefits and problems associated with ATM services; and (4) determine the strategies customers and custodians prefer management adopts in order to improve ATM services patronage.

5.1.1 Performance of both onsite and offsite ATMs

The Access Bank Ghana Limited (ABGL) has 38 on-site ATM machines and 15 offsite ATM machines. On the average, 430 customers visit these ATM machines for varying banking services per week. The ATM machines provide varying banking services to customers including cash withdrawals, pin change, mini statement, checking of balance and cardless withdrawals. Generally, the ATM services of the bank are perceived as quality and reliable with few challenges of breakdowns. The on-site ATMs are perceived to perform relatively better than the off-site ATM machines. The ATM

machines are used by customers 2 to 3 times per week and it takes customers on average 3 to 4 minutes per transaction.

5.1.2 Customers' knowledge on ATM services

The customers of ABGL have limited knowledge on the usage of ATM machines to access services such as recharging mobile prepaid cards, request for a cheque book, deposit money, deposit cheque and accept E-Zwich cards. The inadequacy of the knowledge of the customers on the usage of ATM machines for these services could be attributed to the fact that the ABGLs ATM machines are bereft of such features.

However, the customers are aware of the usage of ATM machines to transact services such as withdraw cash, request for mini-statement and inquire about available balance. The awareness of the customers about these services is attributed to the fact that the bank's ATM machines predominantly possess these features. The customers were also aware that the daily cash withdrawals using ATMs have limit.

5.1.3 Customer's perception on the benefits associated with ATM services

Customer's perceived benefits of the usage of ATM services include speeding up rate of service delivery, easily accessible, enhanced privacy in banking, suitable, user friendly, 24hrs available, reliable, reduced cost of doing business and improved quality of monies dispense.

5.1.4 Customer's perception of the challenge of associated with ATM services

The major challenge of customers in the usage of ATM services include inability to withdraw bigger amount, ATM cards sometimes stuck in the machine, ATM malfunction due to internet connectivity problems, it avoids personal interaction, fear to do business with ATM due to internet fraud, regular break down, frequent power outages, low Knowledge in using technology facilities, PIN Change, Shortage of cash in ATM machine, card locking, lack of privacy to their information and unsecured ATM location.

5.1.5 Strategies preferred to be adopted to improve ATM services patronage

The suggested strategies by the custodians and customers of the bank to be adopted by the management of the bank to improve the patronage of ATM services include the provision of reliable network, education of customers on ATM usage, improvement of security of ATM usage, increase ATM points, reduce ATM service charges for savings account, increase the maximum cash that can be withdrawn per day, improve privacy in ATM usage, provision of more reliable network and invertors to reduce power outage problems, the need to have independent custodians for off-site ATMs and provide deposit taking ATMs and other features.

5.2 Conclusion

Generally, the ATM machines of the Access Bank Ghana Limited provide quality and reliable banking services to its numerous customers in the Kumasi metropolis. Banking services such as cash withdrawals, pin change, mini statement, checking of balance and cardless withdrawals are provide to customers through the bank's 38 onsite ATM machines and 15 off-site ATM machines. On the average, 430 customers visit these

ATM machines for varying banking services per week. The customers of the bank visit the ATM machines of the bank 3 to 4 times per week and it takes them 2 to 4 minutes on average to complete a transaction. For these services, the customers are often charged 30 pesewas to GH¢1 per transaction. The on-site ATMs are the predominantly used and perform relatively better than the off-site ATM machines.

These ATM machines provide several benefits to the customers of the bank including 24 hours availability of services, avoidance of long queues, convenience and privacy in banking. However, in the phase of all these benefits of the usage of ATMs to the customers, several challenges are also met by the customers including inability to withdraw bigger amount, ATM cards sometimes stuck in the machine, ATM malfunction due to internet connectivity problems, it avoids personal interaction, fear to do business with ATM due to internet fraud, regular break down, frequent power outages, low Knowledge in using technology facilities, PIN Change, Shortage of cash in ATM machine, card locking, lack of privacy to their information and unsecured ATM location

The customers of ABGL are neither aware nor use the ATM machines of the bank for services such as recharge mobile prepaid cards, request for a cheque book, transfer of money from one account to another, deposit money and Cheque and accept Ezwich cards due to the fact that the ATM machines of the ABGL do not possess such features. Based on these challenges, the level of customer's patronage of the ATM machines or services of the bank can be improved through several strategies including the education of customers on ATM usage, improvement of security of ATM usage, increase ATM points, reduce ATM service charges for savings account, increase the maximum cash that can be withdrawn per day, improve privacy in ATM usage, provision of more

reliable network and invertors to reduce power outage problems, the need to have independent custodians for off-site ATMs and provide deposit taking ATMs and other features.

5.3 Recommendations

Based on the findings and conclusions of the study, the study recommends several significant strategies can be adopted by commercial banks to customer's patronage of their ATM services.

5.3.1 Education of customers on ATM usage

Based on the finding that many of the customers of Access Bank Ghana Limited are not aware of the capability of some ATM machines to aid customers transfer money from one account to another, recharge mobile prepaid cards, request for a cheque book, deposit cheque or money and accept E-Zwich cards; there is the need for the bank to provide education on the potential usages of the ATM machines of the bank to encourage usage for expanse of banking services.

5.3.2 Improvement of security of ATM

Based on the finding that customers are sometimes confronted with the challenge of fraud through ATM usage, the patronage among customers could improve significantly if the level of security is improved through the installation of more sophisticated software that allow minimal level of fraud.

5.3.3 Increase ATM points

The off-site ATMs of Access Bank Ghana Limited of 15 in the Kumasi metropolis are too limited and that potentially hampers customer's patronage of ATM services. Therefore, the bank could further improve the ATM patronage of customers by providing more ATM points, both off-site and on-site.

5.3.4 Reduce ATM service charges for savings account

The customers and the custodians perceive as a major strategy that can be employed to improve customer's patronage for ATM services reduction in the ATM charges for savings account. This implies that the customers operating savings account perceive the cost per transaction as high and so would prefer a potential reduction in the charges.

5.3.5 Increase the maximum cash that can be withdrawn per day

The customers demand for the bank to increase the maximum cash that can be withdrawn per day implies that they regard the current allowed withdrawal per day as small. Therefore any measure that increases the maximum cash that can be withdrawn per day could improve customer's patronage for ATM services.

5.3.6 Provision of reliable network

The study revealed that the customers perceive as a major challenge to accessing ATM services the available internet connectivity. Therefore, the provision of more reliable network and invertors to reduce power outage problems could enhance customer patronage for ATM services.

5.3.7 The need for independent custodians and ATMs with more features

To improve customer's patronage of ATM services of the bank, there is the need to have independent custodians for off-site ATMs and provide deposit taking ATMs and other features such as allowing transfer of money from one account to another, allowing recharge of mobile prepaid cards and allow deposit and cheque.

5.4 Limitations and suggested areas for further studies

Irrespective of the significance of the current study, it is not without numerous limitations. To begin with, the current study is limited in scope since was limited to only the Access Bank Ghana Limited branches in the Kumasi metropolis. The limited scope therefore limits the generalizability of the findings of the study. Therefore, it is suggested potential studies in this area could enhance the generalizability of the study by including customers from other banks in other parts of the country.

Furthermore, the current study is principally descriptive and this limits the significance of the findings. Therefore, further studies in this area could identify the factors influencing consumers or customer's usage of ATM machines using multiple regression analysis.

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