

**An assessment of the use of Automated Teller Machine (A.T.M)
of Barclays Bank Ghana Limited Akim Oda Branch**

By

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**COMMONWEALTH EXECUTIVE MASTERS OF BUSINESS
ADMINISTRATION**

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DECLARATION

I hereby declare that this submission is my own work towards the Executive Masters of Business Administration and that, to the best to 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.

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DEDICATION

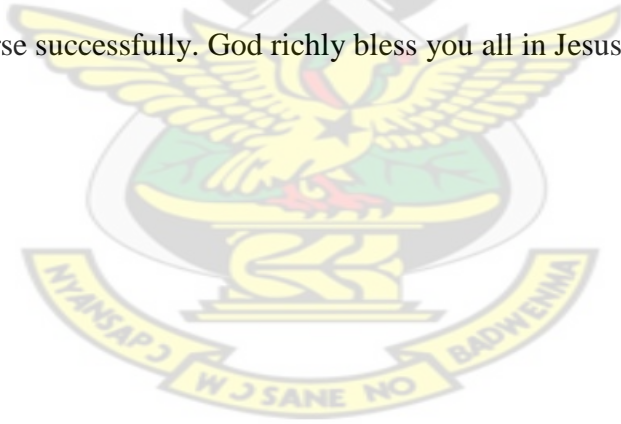
I dedicate this thesis to my wonderful wife Mrs. Beatrice Omari for being a pillar and source of encouragement to me. I also dedicate this piece of work to our lovely daughter Elianne Nhyira Omari. Finally, I dedicate this work to my parents, Mr. William Kojo Omari and Mrs. Mary Oppong Omari for their prayers in completing this thesis successfully.

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ABSTRACT

The study explores the use of the ATM services at Akim Oda branch of Barclays Bank Ghana Limited. The main objective of the study is to determine the reasons underlining the low patronage of ATM services at the branch. This was done by analyzing customer knowledge on ATM services, determining customer perception on the benefits and problems of the ATM services and also determining strategies the customers prefer the bank management adopts in order to improve upon ATM services at the branch. 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 was 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.

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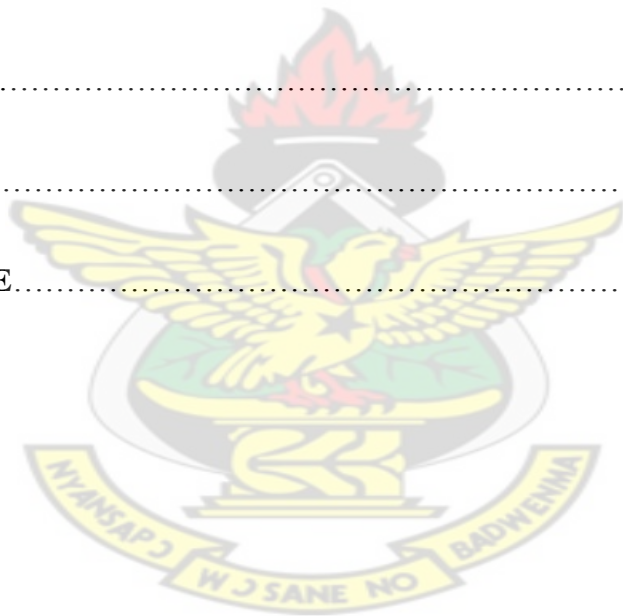
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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The evolution of payments in recent history has gone from cash to cheques, and then to payment cards such as credit cards and debit cards (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). In order to remain competitive, most companies invest a lot of money in modern ICT infrastructure. ICT has also changed drastically the way businesses are done in these modern times.

A number of studies have concluded that ICT has appreciable 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 exception to the numerous ICT products. The ATM services have gone through many stages. According to Abor (2004), the ATM was first introduced solely as a cash dispensing machine but it can now perform other banking services such as cash withdrawals, funds transfers from one account to the other and the payment of bills.

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 (<http://gizmodo.com/5901235/biometric-atm-reads-palms-not-debit-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. (<http://www.brighthub.com/computing/enterprisesecurity/articles/103266.aspx>).

1.2 STATEMENT OF THE PROBLEM

An automated teller machine or automatic teller machine (ATM), is a computerized telecommunications device that provides the clients of a financial institution with access to financial transactions in a public space without the need for a cashier, human clerk or bank teller. Customers can access their bank accounts in order to make cash withdrawals, check their account balances as well as purchase prepaid cell phone credit while using an ATM. (http://en.wikipedia.org/wiki/Automated_teller_machine).

In line with this, Barclays Bank Ghana Limited is of the view that the installation of an ATM at the Oda branch would make life much more easier for its cherish customers and staff in the Birim Central Municipality and its nearby districts thus enabling the bank to achieve its mission and vision.

To increase ATM patronage the bank management has introduced a number of innovations. Some of which include making all ATM cash withdrawals totally free for current account holders and increasing free ATM cash withdrawals for savings account holders from once a month to twice a month. Prior to this innovation every ATM cash withdrawal attracted a fixed charge of twenty five pesewas (0.25p) irrespective of the account type. The bank

management has also increased the daily ATM cash withdrawal limit from Ghana Cedis (GHC) 400.00 to GHC 500.00.

To further encourage ATM usage the management of the bank has also introduced a fine of GHC1.00 for cash withdrawals made in the banking hall which are below the daily ATM limit of GHC 500.00.

By these innovations the bank expects that only customers making withdrawals exceeding GHC 500.00, customers making cash deposits and customers needing other services which cannot be provided by the ATM to use the banking hall.

Nevertheless many customers still come into the banking hall for services such as cash withdrawals below GHC500.00, checking of account balances, printing of account mini statements et cetera (etc) which could be provided by using the ATM. Some customers complain that they do not use the ATM because its operation is cumbersome and that the cash denominations disbursed by the machine are not what they and their families prefer. Others also complain that the quality of the monies disbursed by the ATM is sometimes bad as compared to what they receive from the branch tellers.

All the above reasons call for the need to assess how the branch ATM service is being used and recommend to the bank management the best ways to improve upon its patronage by customers.

From the above observations, the problem can be stated as follows:

Why is it that despite the bank management making ATM cash withdrawals free of charge with terms and conditions applying depending on the account type, increasing the ATM daily cash withdrawal limit from GHC 400.00 to GHC 500.00 and charging a penalty of GHC 1.00

for every cash withdrawals made in the banking hall which are below the ATM daily cash withdrawal limit of GHC 500.00, some customers still queue in the banking hall to perform transactions that can be offered by the ATM? The average daily number of transactions by both the branch ATM and banking hall tellers are represented in Table 1.1

Table 1.1 Average daily numbers of transactions by both the branch ATM and tellers

Teller	Average number of daily cash withdrawals transactions below GHC 500	Average number of daily cash withdrawals transactions exceeding GHC 500	Average number of daily cash deposits transactions
Banking hall teller 1	73	63	80
Banking hall teller 2	77	61	78
Banking hall teller 3(bulk cash teller)	55	40	50
Branch ATM	150	Not applicable	Not applicable
Total number of daily cash withdrawals	355	164	208

Source: Secondary data from Barclays bank-Akim Oda branch, 2011

From Table 1.1 it can be seen that majority of banking hall teller cash withdrawal transactions are below the daily ATM cash withdrawal limit of GHC 500.00. This implies that the branch ATM cash withdrawal service is under utilized by the customers. Teller 3

cash withdrawal transactions are lower than that of teller 1 and teller 2 because this teller has been designated for receiving mostly bulk cash deposits. It can also be seen that on the average all the three banking hall tellers do a total daily transactions of 577 involving cash deposits and cash withdrawals. Out of this 577 about 205(35.52%) cash withdrawal transactions can be carried out by the ATM.

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 Barclays Bank Ghana Limited, Akim Oda branch.

The specific objectives are to:

- i. Analyse customers' knowledge on ATM services.
- ii. Determine customers perception on the benefits and problems associated with ATM services.
- iii. Determine the strategies customers 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. Do customers have adequate knowledge on ATM services?
- ii. What are customers perception on the benefits and problems associated with ATM services?
- iii. 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 Barclays Bank Akim Oda branch and it is aimed at:

- i) Improving general banking hall services at the branch.
- ii) Providing the necessary recommendations to the branch management regarding ways to improve ATM services patronage.
- iii) Increasing tellers' efficiency, this is because they would not be under too much pressure to serve the few customers that would be using the banking hall to transact banking hall services such as cash deposits, cash withdrawals exceeding GHC 500.00 etc.
- iv) 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, requesting of cheque books etc.

1.6 SCOPE OF THE STUDY

The study will be restricted to the ATM services of Barclays Bank of Ghana Limited Akim Oda branch. The study is also limited to customers with ATM card compliant accounts namely current account, bank account and instant saving account holders in the Birim Central Municipality and nearby districts. It also focuses on only ATM even though there are other forms of electronic payments being offered by Barclays Bank of Ghana Limited-Akim Oda branch.

1.7 LIMITATIONS OF THE STUDY

The major limitation of the study is that the branch ATM users are very difficult to locate in the Birim Central Municipality and its nearby districts. In addition to this, some of the

customers were not comfortable being asked to fill the questionnaires right after carrying out their banking hall transactions although they had earlier on being informed about the purpose of the research.

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 as well as 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. Finally Chapter Five deals with summary of findings, conclusions and recommendations.



CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Barclays Bank Ghana Limited has operated in Ghana for over ninety five (95) years. It is a wholly owned subsidiary of Barclays Bank Public Limited Company. Its vision is to become the best bank in Ghana by making lives much easier for its customers, employees and other stakeholders (http://www.barclays.com/africa/ghana/barclays_in.htm). Its mission statement is to be one of the most admired financial service organizations in the world, recognized as an innovative and customer-focused company that delivers superb product and services, ensures excellent career for their staff and also contribute positively to the communities in which they live and work. (http://wiki.answers.com/Q/What_is_the_mission_statement_of_Barclay's_of_bank_of_Ghana).

Barclays Bank of Ghana Limited has an extensive retail and corporate banking network in the country, comprising fifty nine (59) branches, seven (7) agencies, ten (10) Premier Life Centres, two (2) Premier suites and eight (8) Local Business Centres. Barclays has one hundred and thirty five (135) ATMs spread across ninety (90) locations nationwide. Barclays offers a wide range of Corporate, Retail and Treasury products and services targeted particularly at business and corporate clients, while extending personal products and services to retail customers. Barclays also offers local business banking products and services to Small and Medium scale enterprises and indigenous businesses. Barclays Bank Ghana Limited has also introduced many exciting products to their current product suite. One of

them is the Visa Automated Teller Machine (ATM) Debit card, a product which enables their customers to make withdrawals from over 1.4million Visa-branded ATMs worldwide, including Ghana (http://www.barclays.com/africa/ghana/barclays_in.htm).

2.2 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/atm-history, 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 Barclay's 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

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.

2.3 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. A Barclays 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 Barclays 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 patronise its services.

2.3.1 BENEFITS ASSOCIATED WITH THE USE OF THE ATM:

According to the website <http://kalyan-city.blogspot.com/2011/02/automated-teller-machine-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.

2.3.2 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.

e. 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.

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

2.4 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.

2.5 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.

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. Customer satisfaction ratings can have powerful effects in organizations. They focus employees on the importance of fulfilling customers' expectations. Furthermore, when these

ratings dip, they warn of problems that can affect sales and profitability. These metrics quantify an important dynamic. 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 organisation 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. Organisations can surprise customers by calling to congratulate them on their birthdays, wedding days etc. Organisations 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. This provides the measurer with a satisfaction 'gap' which is objective and quantitative in nature.

The usual measures of customer satisfaction involve a survey with a set of statements using a

Likert Technique or scale. The customer is asked to evaluate each statement and in term of their perception and expectation of performance of the organization being measured.

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CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter describes how the study problem was investigated and how the data gathered were analysed. It focuses on the study area, population and sampling technique, data collection procedure, research instrument, research design and data analysis.

3.2 THE STUDY AREA

According to the website http://en.wikipedia.org/wiki/Akim_Oda. Akim Oda (or Akyem Oda) is a town in the Eastern Region of Ghana; it is the thirty third most populous in Ghana in terms of population. Its population is about of 58,788 people. It is the capital of the Birim Central Municipal district. It lies in hilly country with rain forest vegetation in the Birim River basin. The climate is semi equatorial and wet with significant precipitation during the rainy season from April to June and again in September to November. A dry period is experienced between the months of December to February.

The same website shows that cocoa is an important cash crop in the township. The crop is dried and stored in warehouses for shipment. There are several small palm oil farms to the north of the Birim River, covering about 6,000 hectares. Byproducts from the palm-oil mills are used in soap-making. Bamboo is another useful and fast-growing crop in the Municipality. It is a strong and inexpensive material used for furniture and construction. The banks of the Birim River are rich in both gold and diamonds; these minerals are extracted locally through artisanal processes.

The forests contain valuable trees unfortunately illegal lumbering occurs sometimes inside it. Ghana's forest area dropped from 8.2 million hectares around 1900 to 1.6 million hectares by 2000, and continues to decline rapidly due to high demand both for exports and for construction by the growing population. In order to reverse the forest decline managed plantations are being introduced.

Akim Oda also has a lot of tourists' attractions. Some of its tourist's attractions include dug-out boat tours to view the mining operations, traditional ceremonies usually including impressive drumming performances, the biggest tree in West Africa which is 12 meters in circumference and 66.5 meters tall and a bustling outdoor market.

3.3 POPULATION AND SAMPLING TECHNIQUE

For the purpose of this study, the population defined for the research is made up of branch customers whose accounts are entitled to ATM cards namely current account, bank account and instant savings account holders. Respondents were made aware of the purpose of the research. They were assured from the beginning of the research that any information they provide will be kept confidential.

Stratified sampling method was used to categorise the sample units into their respective educational backgrounds after which a simple random sampling technique was used to draw proportionate sample from the stratum. This sampling technique was used because it provided every member of each of the five stratum population an equal chance of being selected in order to avoid being partial in the selection process. The questionnaires were distributed to 350 participants, out of these 295 responded (Response rate 84.29%). The questions were divided into four sections. The first section collected the demographic information of the respondents. The second section collected the respondents' knowledge on

ATM services, the third section collected information on the customers' perception on the benefits and problems associated with the branch ATM services and finally, the fourth section also collected information on the strategies customers prefer the bank management to adopt in order to improve upon ATM services patronage at the branch.

The Yamane's simplified formular for finite population was used to determine the sample size for the study.

This is defined as
$$n = \frac{N}{1 + N(e)^2}$$

Where n= sample size N=population e=precision

It is estimated that there are about 7000 active customers with ATM card enabled accounts at Barclays Bank Akim Oda branch but most of these customers residential addresses have changed. The updated branch records on customers residential addresses indicates that majority of the branch customers reside outside the Birim Central Municipality and its nearby districts. From the branch records customers with ATM card enabled accounts namely current account holders, bank account holders and instant savings account holders residing within the Birim Central Municipality and its nearby districts are estimated to be about 2800. These 2800 customers are those who normally do business with the branch.

$$n = \frac{2800}{1 + 2800 \times (0.05)^2}$$

$$= \frac{2800}{8}$$

$$= 350$$

Only 295 out of 350 ATM users responded. (Response rate 84.29%)

3.4 DATA COLLECTION PROCEDURE

To obtain the relevant data for the study, the researcher obtained information from both primary and secondary sources. With the help of the branch management, the researcher obtained the names and telephone numbers of seven hundred (700) customers of the branch. These customers' contacts were distributed to fourteen staff at the branch. Each staff telephoned fifty (50) customers to obtain their education level. They made the telephoned customers aware of the purpose of the research. The customers had to be contacted for their education levels because during account opening processes their education level was not demanded. Those customers who could not be contacted were replaced in order to make sure the population was seven hundred. After contacting the seven hundred customers, stratified sampling was used to categorise the population into five strata namely customers with no formal education, customers with Primary education, customers with Junior Secondary education, customers with Senior Secondary education and finally, customers with Tertiary education. After categorizing all the customers into their various education levels, a simple random sampling technique was used to select half the population from each of the five strata. A total of 350 customers were selected for the study. Those customers selected were telephoned again to come to the branch to collect and fill the questionnaires within a specified time frame. The questionnaires had earlier on been pretested and the results analysed in the light of the objectives of the study. The pretesting was done in order to enable the researcher determine whether the replies to the questionnaires provided the type of information needed or whether the respondents would misinterpret any of the questions. Most of the telephoned customers reported at the branch during the end of the month. Some of the customers filled their questionnaires immediately upon receipt and handed them over

to the researcher while others asked for some time to enable them fill and submit their questionnaires at a later date. Those customers who wanted to submit their filled questionnaires at a later date were each given a maximum of two weeks to fill and return the completed questionnaires to the researcher who was stationed at the branch. However, at the end of the period when all the questionnaires were to be submitted for analysis, only 295 customers from all the five education categories were ready.

The secondary data sources included the branch teller transactions reports, the branch customer complaint file, journals and the internet.

3.5 RESEARCH INSTRUMENT

The research instruments used for the study were structured questionnaire and unstructured questionnaires. The structured questionnaires were used in order to restrict the respondents to make choices from a fixed range of answers. The unstructured questionnaires were also used so that the respondents would feel free to share information about intimate matters on the topic under study.

3.6 RESEARCH DESIGN

The research was a descriptive study employing quantitative methods of data collection and analysis.

3.7 DATA ANALYSIS

The data collected were examined to make sure they were of good quality. The questionnaires were examined to see if they were properly filled in and completed. The data were laid in a manner that would make analysis easier. The data collected were presented using tables and analysed using percentages.

CHAPTER FOUR

ANALYSIS, DISCUSSION AND REPRESENTATION OF RESULTS

4.1 INTRODUCTION

The use of electronic banking is gaining prominence in Ghana; key among these are the use of ATMs. This research aims at assessing the use of ATM of Barclays Bank Ghana Limited, Akim Oda branch. The Socio-demographic characteristics of customers have been analysed to help understand customers' attitude to the use of A.T.M services.

4.2 SOCIO-DEMOGRAPHIC CHARACTERS

The socio-demographic characters considered for the study are respondents' sex, location, age, level of education, income distribution and occupation.

4.2.1 SEX OF RESPONDENTS

Table 4.1 Sex of Respondents

Sex of Respondent	Frequency	Percentage
Males	182	61.69
Females	113	38.31
Total	295	100.00

Source: Survey data, 2011

It can be seen from Table 4.1 that 61.69% of the respondents were males and the remaining 38.31% were females. This finding implies that more males possess ATM enabled accounts relative to their female counterparts at the branch.

4.2.2 LOCATION OF RESPONDENTS

Table 4.2 Location of Respondents

Location of respondents	Frequency	Percentages
Birim Central Municipality	235	79.66
Outside Birim Central Municipality	60	20.34
Total	295	100.00

Source: Survey data, 2011

From Table 4.2 it can be seen that majority of the respondents 79.66% live within the Birim Central Municipality while only 20.34% live outside the Birim Central Municipality. This finding may imply that majority of the customers who use the branch ATM services are resident within the Birim Central Municipality.

4.2.3 Age of respondent

Table 4.3 Age Distribution of Respondents

Age of Respondents (years)	Frequency	Percentage
Below 20	10	3.39
20-29	23	7.80
30-39	141	47.80
40-49	98	33.22
50-59	18	6.10
Above 60	5	1.69

Total	295	100.00
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Source: Survey data, 2011

The study found out that the least age of the respondents was 18 years; this is because banks in Ghana only opens accounts for customers whose ages are 18 years and above, these people are regarded as adults. ‘In trust accounts’ which are accounts solely operated by an adult on behalf of his/her child until the child turns 18 years, are allowed by banks to be opened by parents for their children below the age of 18 years. Respondents aged below 20 years were 3.39%, those with ages ranging from 20 years to 29 years were 7.80%. Most of the respondents 81.02%, ages were ranging from 30 years to 49 years. Respondents approaching their retirement ages (50 years to 59 years) and those already in their retirement age (60years and above) were low in number (7.79%). The full age distribution of respondents is represented in Table 4.3

4.2.4 Level of education of respondents

Table 4.4 Levels of Education

Level of Education	Frequency	Percentage
No Formal Education	7	2.37
Primary	20	6.78
Middle School/ J.H.S	68	23.05
Secondary/S.H.S	148	50.17
Tertiary	52	17.63
Total	295	100.00

Source: Survey data, 2011

It was found that majority of the respondents, 148 representing 50.17% have up to Secondary level of education. This was followed by those with up to Junior High School, 68 representing 23.05%. Respondents with tertiary education were small in number; they were 52 in number which represented 17.63%. The least were respondents with no formal education, 7 representing 2.37%. This finding suggests that most of the respondents are literate. The details are represented in Table 4.4

4.2.5 Income distribution

Table 4.5 Respondents income distribution

Monthly income of respondents	Frequency	Percentages
Less than GHC 200.00	10	3.39
GHC200.00-GHC300.00	96	32.54
GHC301.00-GHC400.00	89	30.17
GHC401.00-GHC500.00	30	10.17
Above GHC500.00	70	23.73
Total	295	100.00

Source: Survey data, 2011

The monthly income of respondents were determined by the researcher in order to ascertain whether customers monthly salaries were either greater or below the daily ATM withdrawal limit of GHC 500.00. The result indicated that majority of the branch customers (76.27%) monthly incomes were below the ATM daily limit of GHC 500.00 while only a few

(23.73%) were earning salaries above the ATM daily withdrawal limit of GHC 500.00. The details are represented in table 4.5

4.2.6 Occupation of respondents

Table 4.6 Distribution of Respondents among Different Occupational Groups

Occupation	Frequency	Percentage
Unemployed	14	4.75
Students/ Apprentice	23	7.80
Artisans	55	18.64
Farmers	51	17.29
Business men and traders	89	30.17
Public servants	63	21.36

Source: Survey data, 2011

From Table 4.6 It can be seen that majority of the respondents 30.17% were businessmen and traders, this was followed by public servants 21.36%, and then artisans 18.64%. Respondents who were farmers were also 17.29%. Students/apprentices and the unemployed were the least respondents representing 7.80% and 4.75% respectively.

4.3 KNOWLEDGE ON THE USE OF ATM SERVICES

Customers knowledge on ATM services were determined and indicated below in

Table 4.7

Table 4.7 Knowledge on the use of ATM

Knowledge on the use of ATM	Frequency/Percentages		Total
	Yes	No	
Can the ATM be used for cash withdrawal?	295(100%)	0(0%)	295(100%)
Can the ATM be used to check and print account mini statement?	210(71.19%)	85(28.81%)	295(100%)
Can the ATM be used to check account balance?	270(91.53%)	25(8.47%)	295(100%)
Is ATM withdrawals free of charge?	165(55.93%)	130(44.07%)	295(100%)
Can the ATM be used to order for cheque books?	49(16.61%)	246(83.39%)	295(100%)
Does the ATM have	255(86.44%)	40(13.56%)	295(100%)

a daily cash withdrawal limit?			
Is the ATM daily cash withdrawal limit GHC500?	210(71.19%)	85(28.81%)	295(100%)
Can the ATM accept Ezwich card?	107(36.27%)	188(63.73%)	295(100%)
Can the ATM operate for 24 hours/7 days a week without error?	270(91.53%)	25(8.47%)	295(100%)

Source: Survey data, 2011

The ATM is a product of Information and Computer Technology. The 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 (Lovelock, 1996). Knowledge on the services of the ATM was analyzed in order to find out whether the respondents were aware of the ATM services; this is shown in Table 4.7.

The study shows that all of the respondents were aware that the ATM could be used for cash withdrawals. This was because most of the respondents perceive the ATM as a machine whose main purpose was to dispense cash. Other respondents indicated that they were informed immediately upon the receipt of their ATM cards that they could use their cards to withdraw monies from the ATM.

The study further found out that 71.19% of the respondents were also aware that the ATM

could be used to check and print their account mini statement though some of them confessed that they could not use the ATM to carry out these types of transactions all by themselves.

Other respondents however indicated to the researcher that although they were able to carry out all these transactions by themselves, most at times the ATM does not print their account mini statement because it runs out of journal rolls. They therefore have to come inside the banking hall to print their mini statement.

As high as 91.53% of the respondents were also aware that the ATM could be used for other services such as checking of account balances. Some of the customers told the researcher that though they knew that the ATM could be used to check account balances they could not on their own carry out this transaction. Some of the respondents also indicated that after making cash withdrawal they relied on the receipt supplied by the ATM to check their account balances. This is possible because the printed receipt after each cash withdrawal displays both the amount withdrawn and the remaining account balance.

Another category of respondents (55.93%) were aware that ATM withdrawals were free of charge depending on the type of account they were operating. Some of the respondents indicated that they became aware that the ATM withdrawals were free of charge from leaflets in the branch and the branch television promotions. Most of the respondents however indicated that they do not believe that the ATM withdrawals were totally free from charge because, unlike current account holders who have unlimited free withdrawals in a month, savings account holders were restricted to only two free withdrawals in a month.

It was further found out that 83.39% of the respondents were unaware that the ATM could be used to order for cheque books. Most of them indicated that they were unaware of this because the bank management has failed to promote this service of the ATM. Those who

were aware also indicated that when they use the ATM to request their cheque books it takes a very long time before it is delivered to them relative to them requesting their cheque books directly from the branch.

The study also found that 86.44% of the respondents were aware that the ATM had a daily cash withdrawal limit although only 71.19% of them were aware that the daily withdrawal limit was GHC 500.00. Some of these respondents indicated that they became aware of this through friends and on the ATM screen display. They however stated that the daily cash withdrawal limit of GHC500.00 was unfavourable to them because they sometimes had to withdraw monies which were bigger than the prevailing daily cash limit.

Another category of respondents (63.73%) were also aware that the ATM does not accept ezwich card which is an interbank payment system which makes it possible for customers of one bank to use other banks ATM to make cash withdrawals. Barclays bank Ghana Limited is yet to upgrade its ATM systems to accept the ezwich cards. Most of them stated that they became aware of this through the branch personal bankers. A few of them however stated that they were notified by friends and relatives who had accounts with the bank.

Furthermore, as high as 91.53% of the respondents were aware that the ATM could operate for twenty four (24) hours and seven (7) days a week without error. They indicated that they became aware of this because it was boldly displayed around the ATM. Other respondents indicated that the branch ATM custodian had informed them that the ATM can provide service without any error although there can be human error which could occur when the ATM cassettes holding the various cash denominations are interchanged.

It can therefore be concluded that most of the customers are aware of the services of the ATM thus, they have adequate knowledge on ATM services since they know that the daily

cash withdrawal limit is GHC 500.00 and that the ATM can be used to make cash withdrawals, print mini statements and check account balances.

4.4 CUSTOMERS PERCEPTION ON ATM SERVICES

4.3.0 Customers perception on the benefits of ATM services at the branch was determined and it is indicated in Table 4.8.

Table 4.8 Customer perception on the benefits of ATM service

RESPONSES	FREQUENCY	PERCENTAGE
Time savings	109	36.95
Easy carrying out transactions	79	26.78
Quality of monies dispense	12	4.07
Privacy in banking	40	13.55
Twenty four (24) hour services operation	55	18.64
TOTAL	295	100

Source: Survey data, 2011

Majority of the respondents 36.95% perceive that the ATM saves time in carrying out banking transactions as compared to the banking hall. They indicated that the ATM reduces waiting time in carrying out transactions. For instance during ATM cash withdrawals customers do not fill in a withdrawal slip which waste so much time relative to the manual system which takes place in the banking halls whereby customers have to collect savings withdrawal slip from the counter, fill it and then join a queue before handing it over to the

teller. This manual process sometimes becomes very problematic when the customer does not fill the withdrawal slip well and have to re- fill a new one. This time saving element of the ATM is in agreement with the work carried out by Lovelock (1996) who 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.

Another category of respondent (26.78%) indicated that they perceive that the ATM was easy to use though one has to be able to read and understand the English language in order to operate it. They stated that it was easy for them to navigate through the ATM screen menus. Most of these respondent indicated that the easiest transaction they could use the ATM to do was cash withdrawal and checking of balances. Respondents who were new ATM users however indicated to the researcher that they initially found it difficult to insert the ATM card correctly but with time they became conversant with the correct insertion of the ATM card.

Minority of the respondents 4.07% also had the perception that the qualities of the monies dispensed by the ATM were in good quality. They indicated that sometimes the monies dispensed by the ATM are clean and not torn relative to what they receive from the banking hall tellers. This may be due to the fact that the branch ATM custodian tries to load only the best quality monies into the ATM cassette in order to prevent torn monies from jamming the machine. Sometimes the monies disbursed by the ATM are slightly dirty because the branch mainly evacuates monies rather than receiving new monies from the head office or the Central bank.

Furthermore 13.55% of the respondents indicated that the ATM provides privacy in carrying out their banking transactions. They indicated that the ATMs provides them the opportunity to withdraw from their accounts any amount of money no matter how small it is without feeling shy, as it was a bit uncomfortable to come into the banking hall to withdraw very small amount of money. Some of the respondents were very comfortable using the ATM to transact services such as checking of their account balances than using the banking hall because they did not want the bank staff to know how much they were earning from their places of work.

It was also found that 18.64% of the respondents perceive that the ATM could work for 24 hours when it is provided with uninterrupted power supply, reliable network and enough money. This 24 hourly service rendered by the ATM gave the customers the opportunity and the flexibility to carryout banking transactions such as cash withdrawals, checking of balance, printing of mini statement and ordering of cheque books at anytime of the day.

Aside the above benefits, 35 respondents (11.86%) out of the 295 indicated to the researcher that the ATM had the following additional benefits:

They were happy the ATM does not dispense coins to customers; they stated that they were uncomfortable when banking hall tellers' added coins to the monies they were withdrawing. Some of these respondents also indicated to the researcher that the monies dispensed by the ATM were free from counterfeit.

Besides determining customers' perception on the benefits derived from the ATM services, the researcher also wanted to determine the perception customers have on the problems associated with its use. The details are represented in table 4.9

Table 4.9 Customer perception on the problems of ATM service

RESPONSES	FREQUENCY	PENCENTAGE
High charges	59	20.00
Withdrawal limit	73	24.75
ATM complexities	22	7.46
Technical failures	121	41.02
Unsecured ATM location	20	6.78
TOTAL	295	100

Source: Survey data, 2011

From table 4.9 above it was found that 20.00% of the respondents perceive that the ATM services attracted high charges. They indicated that ATM services were only free for current account holders, because current account holders were able to make unlimited cash withdrawals without any charge but savings account holders were only limited to two free withdrawals in a month and are charged GHC1.00 for any other withdrawal they make. They indicated that they were not satisfied with the bank charging them for withdrawing their own monies from their savings accounts. Customer satisfaction has been defined by many authors. Porter and Miller, (1985) defined customer satisfaction as a post consumption evaluation that meets or exceeds expectations. Some of these respondents with savings accounts also indicated to the researcher that sometimes the ATM does not dispense the maximum daily cash withdrawal limit of GHC 500.00 at a go and thus they have to withdraw their monies in two terms, normally GHC 400.00 for the first term and then GHC100.00 for the second term. Unfortunately for them by doing these two terms cash withdrawal transactions they reach their savings account free ATM withdrawals limit for the month and thus any further ATM

cash withdrawal they make within that same month would attract a charge of GHC1.00. This they indicated discourages them from using the ATM to withdraw cash.

Another category of respondents 24.75% were also not happy with the ATM daily withdrawal limit of GHC 500.00. They indicated that they were not happy with the daily cash withdrawal limit because it was too small. The manager of the branch however informed the researcher that the daily cash withdrawal limit was pegged at GHC 500.00 in order to prevent customers from losing so much money on daily basis when their ATM cards are stolen and it is being used by people who happen to know their ATM card PIN without their knowledge.

Another group of respondents 7.46 % indicated that the ATM was complex and not user friendly. They associated the ATM complexity to the fact that they find it difficult to navigate through some of the ATM screen menus. They indicated to the researcher that the ATM sometimes captures their cards when they are navigating through the menus. The ATM custodian however informed the researcher that the ATM captures ATM cards for security reasons which include customers making multiple PIN tries, other times the cards are captured when they are expired, damaged or blocked by the account holder.

Majority of the respondents 41.02% indicated to the researcher that the major problem militating against the use of the branch ATM is frequent technical problems. They stated that they experience frequent out of service messages and frequent ATM breakdowns. This is in line with a study done by Khan (2010) who indicated in his work that technical problem was a major problem affecting ATM use. The likely reason for the branch frequent network failures is that unlike other Barclays Bank branches that relies on more than one telecommunication network, the branch depends on only one telecommunication company Vodafon to transmit its data thus when Vodafon network goes offline the branch systems

also goes offline.

A very small percentage of the respondents (6.78%) also indicated to the researcher that the ATM location deters them from using it. They indicated that the ATM was too close to the main road, thus making it possible for passersby to see what they were doing. They wanted the ATM to be relocated away from the main road so that users could have their complete privacy from passersby. Others also informed the researcher that during the afternoon they found it difficult to read the menus on the ATM screen because the sun shines directly on the ATM and this makes reading and navigating the screen menu difficult. Some of these respondents also wanted security personnel to be positioned near the ATM booth especially at night to safeguard their security.

Aside the above problems, 48 respondents (16.27%) out of the 295 indicated to the researcher that the ATM has the following additional problems:

False Debit: They stated that the ATM sometimes debited their account without dispensing cash when assessing it. They stated that at times the ATM reverses the false transaction but when it does not do so, it takes a very long time for it to be reversed when they complain to the branch authorities. One of the respondent stated that it took the branch management three weeks to credit back into his account a wrongful ATM debit transaction although majority of the respondents indicated that it took the branch management about a week to credit their accounts with the wrongful ATM debit transaction.

Some of these respondents also indicated that the ATM sometimes displayed on its screen that they do not have enough funds in their account even though they were aware they had money. Others were also not happy that the ATM had not been configured to be used by the physically challenged customers like the blind and those on wheel chairs. A few of the

respondents were also not happy the ATM had not been configured to give overdraft facility to customers with regular sources of income such as salary workers.

Some respondents were also not happy with the denominations dispensed by the ATM. They wanted the ATM to be configured in such a manner that it would be possible to select specific cash denominations.

It can therefore be concluded that most of the branch customers are not happy using the ATM because of the high charges, daily cash withdrawal limits and technical failures.

4.5 STRATEGIES CUSTOMERS WOULD PREFER MANAGEMENT TO ADOPT IN ORDER TO IMPROVE ATM SERVICES PATRONAGE AT THE BRANCH

In order to encourage ATM use at the branch the researcher solicited views from the customers on the strategies they would prefer management to adopt in order to improve ATM services patronage at the branch. The details are presented in table 4.10

Table 4.10 Strategies to improve the branch ATM patronage

STRATEGIES	FREQUENCY	PERCENTAGE
Reliable network	92	31.12
Education	65	22.03
Security	33	11.19
Reduction on ATM service charges for savings account	69	23.34
Increase ATM points	36	12.20
Total	295	100

Source: Survey data, 2011

From table 4.10 it can be seen that majority of the respondents 31.12% wanted the branch to adopt a very reliable network in its operations. The management of the branch can do this by adding another telecommunication network to it already existing Vodafon network. This will ensure that when one telecommunication network goes off, the other will be on standby for use. Rarely would both telecommunication networks go off at the same time. Stable and reliable network would encourage customers to use the ATM services at the branch resulting in the reduction of queues in the banking hall especially at the end of the month when most workers are paid in the country.

Another category of respondents (22.03%) wanted the branch to embark on vigorous campaign on all the services the ATM can offer aside cash withdrawals. They also wanted to be given brochures on the ATM services. Some of these respondents indicated to the researcher that they only received the ATM card without any manual on its operation. They wanted the branch to have personnel who would assist customers' especially new users on the ATM operations. Some of these respondents also wanted the bank to upgrade its ATM so that it would have a voice guard during its usage. Others also wanted the bank to use posters, the ATM screen and the branch digital versatile disc player to educate users on all the ATM services.

Furthermore 11.19% of the respondents wanted the branch to improve upon the security at the ATM booth. They indicated to the researcher that the ATM is poorly lit in the evenings and sometimes no security personnel was found near the ATM booth during certain times of the day. Some of them also felt unsecured when they use the branch ATM because of its location. They feared that passersby could easily notice all that they were doing, they therefore wanted the ATM to be relocated to a place that passersby would find it difficult to

see the transactions they were doing.

Another 23.34% of the respondent wanted the ATM services charges associated with savings account holders to be reduced or waived off. They indicated to the researcher that they were not motivated to use the ATM because the bank provided only two free cash withdrawals in a month and charged them GHC1.00 for any other cash withdrawals they made within that same month. Some of these respondents also wanted the daily withdrawal limit of GHC500.00 to be personalized to meet their need.

The final category of respondents (12.20%) wanted the number of ATM points at the branch and the nearby districts increased. Their main reason for this is to increase ATM access and this they believe would save them time from travelling long distances to access the ATM services. Another reason for increasing the ATM access will ensure that when one of the ATM goes off or breaks down the others could be used to prevent inconveniences associated with frequent breakdowns. Presently, the single ATM at the branch serves customers from the Birim Central Municipality (Akim Oda), Birim South District (Akim Swedru), Kwaebibirim District (Kade), Agona West District (Agona Swedru), Agona East District (Agona Nsaba), Akyemansa District (Ofoase) and West Akim District (Asamankese).

Aside the above strategies, 22 respondents (7.46%) out of the 295 respondents indicated to the researcher that management could adopt the following additional strategies in order to improve ATM services patronage:

Some of these respondents wanted the bank to make it possible for them to use their mobile phones to block their ATM card when it gets missing or stolen especially during periods when the bank is closed to the general public like on week days between 4:30pm to 8:30am, weekends and on public holidays.

Other respondents also wanted management to run promotions which will award the highest ATM services user in every month.

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CHAPTER 5

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter summarizes the entire study; the findings of the study, recommendations by the researcher, limitations encountered and directions for future research.

5.1 SUMMARY OF FINDINGS

The study explores the use of the ATM services at Akim Oda branch of Barclays Bank Ghana Limited. The main objective of the study is to determine the reasons underlining the low patronage of ATM services at the branch. This was done by analyzing customer knowledge on ATM services, determining customer perception on the benefits and problems of the ATM services and also determining strategies the customers prefer the bank management adopts in order to improve upon ATM services at the branch.

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 categorise the sample unit according to their level of education. Both primary and secondary data sources were used for the study. Both structured and unstructured 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; majority of the respondents were males, majority of the respondents were located in the Birim Central municipality, most of the customers ages ranges from 30 to 39 years, most of the respondents were business men and traders, the level of education was

fairly high with majority of the respondents having up to Secondary education. It was also found that most of the respondents' monthly income ranges from GHC 200.00 to GHC 300.00.

Furthermore it was found that most of the customers had a good knowledge on the services offered by the ATM.

Additionally majority of the respondents indicated to the researcher that the ATM was beneficial in terms of time savings and the ease in carrying out banking transactions such as cash withdrawals and checking of account balances.

Some major problems found through the study were that there was a high perception that the branch ATM was associated with technical problems such as frequent network failures and frequent breakdowns, the daily cash withdrawal limit of GHC 500.00 was also low, this is because most of the customers indicated to the researcher that they mostly receive remittances higher than the daily limit. Another problem found by the study was that the ATM withdrawal charges for savings account holders were high.

Finally the study found out that to encourage ATM use at the branch; majority of the respondents wanted the bank to address its network problems in order to reduce the frequent out of services messages, increase its ATM access points and also embark on vigorous education on all the services the branch ATM can offer to customers.

5.2 CONCLUSION

The following were drawn in line with the findings

- i. Majority of the branch ATM subscribers are males.
- ii. Majority of the ATM subscribers are located in the Birim Central Municipality.
- iii. Majority of the ATM subscribers ages range from 30 to 39 years.
- iv. The level of education of respondents is fairly high in the study area with majority having Secondary level of education.
- v. Income level of respondents are low with majority earning monthly income ranging from GHC 200.00 to GHC 300.00.
- vi. Majority of the customers are business men and traders.
- vii. Majority of the respondents are aware that the ATM has a daily cash withdrawal limit. They are also aware that the ATM can operate for 24 hours a day and it can be used to make cash withdrawals, check account balances and account statements.
- viii. There is a general perception that ATM services are beneficial in terms of saving time and flexibility in usage.
- ix. There is a general perception that the ATM is associated with frequent technical failures and high service charges for savings account holders.
- x. The main strategies for improving the patronage of ATM services at the branch are increasing the reliability of the branch network services, waiving off the high charges associated with saving account cash withdrawals and conducting educational promotions on all the services that can be offered by the ATM.

It can be concluded from the above that majority of ATM subscribers have a good knowledge on the services offered by the 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.

5.3 RECOMMENDATIONS

The following recommendations were made in line with the findings and the conclusions drawn.

- i. The study found that there are more males ATM subscribers than females in the study area. To reverse this situation management should draw an educational program that would target female customers in order to increase the patronage of women in the use of the branch ATM. Management should also conduct frequent education on all the services the ATM can offer to customers.
- ii. It was found that majority of the subscribers are within the age ranges 30 and 39 years. There is therefore the need for management to target customers in the other age categories. This can be done by carrying out promotions to attract the various age groups.
- iii. It was also found that majority of the customers are business men and traders. Management is being recommended to offer education and promotion for customers in the other occupations.
- iv. It was also found that the main problems associated with the ATM usage are frequent technical failures, high savings account ATM cash withdrawal charges and the daily withdrawal limit. It is being recommended that management needs to review the high charges associated with the savings account cash withdrawals in order to attract customers to use the ATM for their banking transactions. In addition to this management needs to increase the daily withdrawal limit from GHC500.00 to GHC1000.00 this is because most of the

respondents indicated to the researcher that they sometimes receive remittances from friends and relatives up to GHC1000.00 and because the ATM daily limit is GHC500.00 they are mandated to use the banking hall to withdraw their monies. Furthermore management should address the frequent technical failures in the form of 'ATM is out of service' frequent ATM breakdowns and network failures by replacing the existing ATM with a modern and a durable one. The bank management should also provide an additional telecommunication network to the branch so that it can rely on that network when the present network goes offline. The bank management should also upgrade their systems to enable customers to block their missing or stolen ATM card by the use of their mobile phones.

v. Management should increase the ATM access points in the Birim Central Municipality and its nearby districts. Additionally management should incorporate mobile phone air time top up, utility payment etc. to the existing ATM services to encourage their everyday use.

vi. Management should also ensure that the ATM is provided with adequate journal rolls to encourage customers to print their mini bank account statements and balances.

vii. Management should stock the ATM with new currency note by requesting for new notes from the Head Office on regular bases.

viii. Management should also relocate the ATM to a position where users can have their complete privacy from passersby.

ix. Management should also adopt a holistic strategy to promote ATM usage at the branch instead of over relying on educational promotions as a way of promoting ATM use by coming out with attractive packages.

5.4 FURTHER STUDIES

This study focused on the assessment of the use of ATM of Barclays Bank Ghana Limited, Akim Oda branch. A further study should be carried out to find out how the long queues seen in the banking hall especially during the end of the months affects man hours for customers and the overall effect on the development of Birim Central Municipality and its surrounding districts.

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APPENDIX

RESEARCH QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

INSTITUTE OF DISTANCE LEARNING

TOPIC: AN ASSESSMENT OF THE USE OF AUTOMATED TELLER MACHINE

(A.T.M) OF BARCLAYS BANK GHANA LIMITED

AKIM ODA BRANCH

This questionnaire is designed mainly for the purpose of academic exercise. As a result, every information provided would be treated with the confidentiality it deserves as much as possible and also identity of all respondents would be highly protected.

Appendix 1

Please tick√..... where applicable to you.

1. What is your sex?

Male.....

Female.....

2. Where are you located?

Birim Central Municipality.....

Outside Birim Central Municipality.....

3. What age group do you belong?

Age group (years)	Please tick against your age group
Below 20	
20-29	
30-39	
40-49	
50-59	
Above 60	

4. What is your highest level of education? Please tick against your highest level of education.

No Formal Education	
Primary	
Middle School/ J.H.S	
Secondary/S.H.S	
Tertiary	

5. What monthly income group do you belong? Please tick against your income level.

Less than GHC 200.00	
GHC200.00-GHC300.00	
GHC301.00-GHC400.00	
GHC401.00-GHC500.00	
Above GHC500.00	

6. What is your occupation? Please tick against your occupation.

Unemployed	
Students/ apprentice	
Artisans	
Farmers	
Business men and traders	
Public servants	

Appendix 2

Please select either yes or no and provide you reason(s) in the space provided.

7. Customer knowledge on ATM services.

Research Question			What is/are your reason(s) for the selection?
	Yes	No	
Can the ATM be used for cash withdrawal?			
Can the ATM be used to check and print account mini statement?			
Can the ATM be used to check account balance?			
Is ATM withdrawals free of charge?			

Can the ATM be used to order for cheque books?			
Does the ATM have a daily cash withdrawal limit?			
Is the ATM daily cash withdrawal limit GHC500?			
Can the ATM accept Ezwich card?			
Can the ATM operate for 24 hours/7 days a week without error?			

Appendix 3

Please select only one major benefit and give your reason(s) in the spaces provided.

8. Which of the following do you perceive is the major benefit associated with using this branch ATM services?

Time savings	
Easy carrying out transactions	
Quality of monies dispense	
Privacy in banking	
Twenty four (24) hour services operation	

9. Please explain your reason(s) for the benefit selected?

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10. Are there any other benefits you perceive is associated with the branch ATM not captured above?

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Please select only one major problem and give your reason(s) in the spaces provided.

11. Which of the following do you perceive is the major problem associated with using this branch ATM services?

High charges	
Withdrawal limit	
ATM complexities	
Technical failures	
Unsecured ATM location	

12. Please explain your reason(s) for the problem selected?

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13. Are there any other problems you perceive is associated with the branch ATM not captured above?

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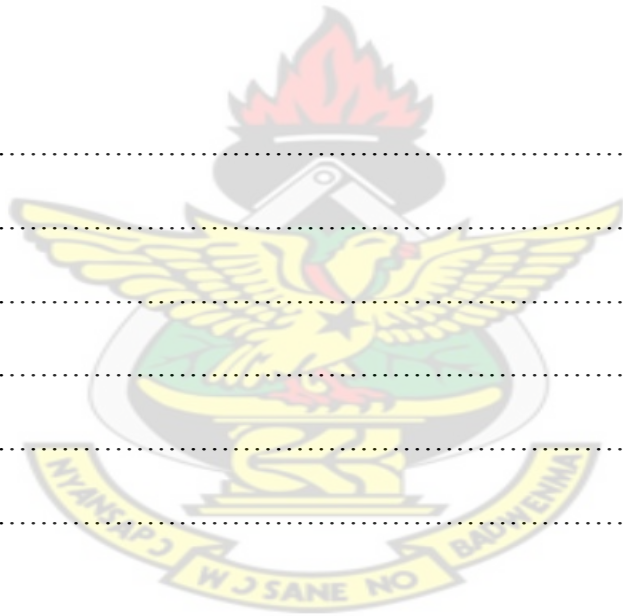
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Appendix 4

Please select only one major strategy and give your reason(s) in the spaces provided.

14. Which one of the following strategies would you prefer management to adopt in order to improve this branch ATM services?

Reliable network	
Education	
Security	
Reduction on ATM service charges for savings account	
Increase ATM points	

15. Please explain your reason(s) for the selected?

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16. Are there any other strategy not stated above that you would prefer management adopts in order to improve this branch ATM services?

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