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## Exploring the use of automated teller machine (ATM) services of Agricultural Development Bank (ADB), Kasoa Branch

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### Abstract

The Automated teller machine (ATM) is one of the technological advances that brought about changes in the way banks provide service to their customers. The ATM was introduced with the view to automate the operations of the banks and thus reduce the need for bank tellers and in long run reduce costs. One of the aims of banks in bringing the ATM was to reduce congestion in the banks and improve service delivery to the customer. Against this background, the study sought to determine the reasons underlining the low patronage of ATM services. The study adopted the descriptive approach whilst stratified sampling method to break the sample unit according to their level of education. The results of the study show that there is a high perception that the ATM is associated with technical problems such as frequent network failures and frequent breakdowns. Again, customers and the bank have benefitted in terms of improved service and increase in revenue. However, there are areas that need improvement like prompt resolution of ATM queries and faults as well as frequent network failures. Finally, the study recommends on how to alleviate the challenges such as the introduction of more ATMs and reduced ATM down time.

**Keywords:** Exploring, automated, teller, machine, services, agricultural, development, bank, branch

### 1. 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) [3]. Interestingly, debit cards are the most rapidly growing method of payments in several countries around the world (Pierce, 2001) [14]. Information and communication technology (ICT) has also provided new products and value added services to be delivered using the same electronic infrastructure (Abor, 2004) [1]. ICT has also change 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) [2, 19].

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) [1], 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. It is sometimes known as hole in the wall which is a computerized Telecommunication device that provides the client of financial institutions with access to financial transaction in a public space without the need of a cashier, human clerk or bank teller (Milligan 2007). To protect ATM users from fraud, some modern ATMs have been made biometric which acquires 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>). The use 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>). Another use of most modern ATM the customer is identify by inserting a plastic ATM card with a magnetic strip or a plastic smart card with a chip that contains a unique card number and some security information such as expiration date. Authentication is provided by the customer entering a personal identification number (PIN) (pacific stores 1966).

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Using an ATM, customers can assess their bank accounts in order to make cash withdrawal, credit cash advances and check their accounts balance as well as purchase pre-paid cell-phone credit. The first cash dispensing device was used in Tokyo in 1960. Although little is known of this first device, it seems to have been activated with a credit card rather than assessing account balances. In simultaneous and independent efforts, engineers in Sweden and in Britain developed their cash machines during the early 60's. The first of these was put into use was by Barclays Bank in Enfield Town North London (Enfield cash Gift to the world 2007).

ATM's are placed not only near or inside the premises of Banks but also in location such as shopping malls, airports, grocery shops, gas station, restaurants or anywhere frequented by large number of people (Darch & Caltabian0, 2004). Now most ATM are connected to inter-banks networks, enabling people to withdraw and deposit money from machines not belonging to the bank where they have their account and in the country their account are held. Many banks charge ATM usage fees, in some cases the fees are charged solely to users who are not customers of the bank where the ATM is installed: in other cases, they apply to all users.

### 1.2 Statement of the problem

Within the past two decades electronic payments have gain popularity in the banking sector because of the through breakthrough in ICT (Horvath, 2007). The use of ICT in electronic payments has a variety of platforms such as internet banking, telephone banking, P.C. banking where customers assess these services using an intelligent electronic device like the Personal Computer (PC), Personal Digital Assistance (P.D.A) and Automated Teller Machine (ATM) and Point of Sale (POS) (Horvath, 2007).

In Ghana, the use of ATM is aimed at bringing efficiency in the Banking services by offering prompt payments through an electronic medium. It is also hoped that the use of the ATM will help decongest crowded banking halls during peak hours. This is with the hope that hours spent at the bank will be reduced, customers will be satisfied with the services received and the image of the bank in terms of efficiency will be enhanced.

Despite the numerous advantages to be derived from the use of ATM, most customers are yet to subscribe to ATM services, the few who have subscribed prefer over the counter services rather than the use of ATM. This situation had led to a small number of subscribers using ATM services irrespective of the huge sum the bank had invested in the establishment of ATM points. It is therefore necessary to determine the factors contributing to the underutilization of A TM in the bank in order to find solutions to help decongest the banking hall.

### 1.3 Objectives of the study

The general objective of the study is to investigate the use of the ATM and to determine the reasons underlining the low patronage of ATM services at Agricultural Development Bank (ADB), Kasoa Branch.

The following specific would also be addressed:

- i. To analyze customers knowledge on ATM services.
- ii. To determine customers perception on the benefits and problems associated with ATM Services

- iii. To identify customers preferred strategies 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 Service?
- iii. What strategies would customers prefer management to adopt in order to improve ATM services patronage?

### 1.5 Significance of the study

The study of assessing ATM services is of great importance to the sudy because it will help improve on efficiency of services. The main idea of introducing the ATMs services is to help decongest the bank especially at peak periods. When the problems associated with underutilization of ATMs services are addressed, it will help improve access to ATM services and this problem will be solved.

The effective use of ATM service will help reduce waiting time of customers when assessing banking services using ATM. In addressing the problem associated with ATM services, the bank stands to gain because, its image will be enhanced and eventually lead to attracting more customers. Customers' satisfaction on the services of ATM will also be enhanced through this study since all bottlenecks militating against customers satisfaction will all be addressed to help improve access to ATM services. This will eventually lead to an increased profitability of the bank.

### 1.6 Scope of the study

The study will be restricted to the ATM services of Agricultural Development Bank (ADB), Kasoa Branch. The study is also limited to customers with ATM card compliant accounts namely current account, bank account and instant saving account holders too. It also focuses on only ATM even though there are other forms of electronic payments being offered by Agricultural Development Bank (ADB), Kasoa Branch.

### 1.7 Limitations of the study

One of the major problems with the study was the difficulty in identifying ATM subscribers in the study population. The problem arose due to the bank unwillingness to release the list of ATM subscribers to the researchers even though an introductory letter was sent to the bank before the researchers began the study.

Again, most of the ATM subscribers contacted were in hurry to leave which led lead to delay in collecting the data. Another problem encountered was the difficulty of getting secondary data on ATM users in the form of report. Most of the report were classified information for exclusive use for bank officials, as such made data collection difficult for the researcher.

## 2. Literature Review

### 2.1 Introduction

This chapter looks at the review of related literature on the ATM Technology evolution, usage, Benefit Associated with ATM usage, Problems Associated with ATM Usage, ATM Services delivery and customers Satisfaction.

## 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](http://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 in sKasoess and fame and the same was passed on to two other gentlemen, John Shepherd-Darron 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 sKasoessful 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 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 e-Zwich 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. Agricultural Development Bank (ADB), Kasoa Branch customer can withdraw cash from an ATM belonging to Merchant Bank, Ecobank, Ghana Commercial Bank, Stanbic Bank, Barclays Bank, etc by the use of the biometric smartcard or the e-zwich 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 Agricultural Development Bank (ADB), Kasoa Branch have configured their ATM for this service (<http://www.iflr1000.com/legislationguide/192/the-e-zwich-electronic-clearing-and-payment-system.htm>). 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) <sup>[10]</sup>. 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) <sup>[4]</sup> 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)<sup>[8]</sup>. Kelly (1989)<sup>[9]</sup> found that although the world has witnessed a SKasoessful 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.

### 2.3.1 Benefits Associated With The Use Of The ATM:

According to the website

<http://kalyan-city.blogspot.com/2011/02/automated-teller-machineatm-advantages.html>, most modern ATMs have the following benefits

- a. ATMs provide 24 hours service:
- b. ATMs gives convenience to bank's customers
- c. ATMs reduce the workload of bank staff
- d. ATMs provide service without any error:
- e. ATMs are very beneficial for travelers:
- f. ATMs may give customers new currency notes
- g. ATMs provide privacy in banking transactions.

### 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. 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.

### 2.4 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)<sup>[11]</sup> stated that the ATM technology customizes service offerings, reduces waiting time for customers, services as an alternative channel for service delivery and provision of 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)<sup>[6]</sup> 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. Generating of 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. Management plays an important role in service delivery; customer's

satisfaction 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 queue in bank halls, customers can invest such time spent 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) [13] defined customer satisfaction as the product of the accumulated experience of a customer's purchase and consumption. Porter and Miller, (1985) [15] defined customer satisfaction as a post consumption evaluation that meets or exceeds expectations

According to the website [http://en.wikipedia.org/wiki/Customer\\_satisfaction](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 and 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 organization to be profitable and over take 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. This provides the measurer with a satisfaction gap which is objective and quantitative. 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 terms of their perception and expectation of performance of the organization being measured.

## 3. Methodology

### Introduction

This chapter deals with the method used in collecting and analyzing the data used in this study. The chapter will discuss the following: research design, study population, sample and sampling technique, sources of data, data collection instruments as well as data processing and analysis.

### 3.1 Research Design

Research design has to do with the plan and structure of a research which guides in the collection and analysis of data. A well designed research ensures that any observed difference in performance between the control and experimental conditions can be attributed to the change in the value of the independent variable and not to any other factor (Sekaran, 2003) [17].

A research design encompasses the methodology and procedure employed to conduct scientific research. This study used descriptive and exploratory research design. The research design helped the researchers to assess the use of ATM at Agricultural Development Bank (ADB), Kasoa Branch.

### 3.2 Population under study

A population is the whole group that the research focuses on. A population consists of all elements whose characteristics are being studied (Saunders *et al.* 2012) For the purpose of this study, the population defined for the research is made up of branch customers of Zenith Bank whose accounts are entitled to ATM cards namely current account, bank account and instant savings account holders.

### Research Purpose

According to (Saunders *et al.* 2012) information can be classified in terms of their purpose as well as the research strategy which is used. Three approaches of the enquiries are identified, but often one of them is used. It can either be exploratory study, where the researcher is trying to seek what is going on so as to find new information, to ask question and access the phenomena in new light (Robson 1998). It is best when the researcher is uncertain of which theories are useful and when it is difficult to determine important characteristics and relations. Descriptive approach is used in descriptive studies to portray accurate profile of situation (Robson 1998). Explanatory approach on the other hand looks at the relationship between variables. A situation is studied in order to explain the relationship between the variables. In this particular research, Descriptive approach is used since we are not very sure of the answer given by respondent, and explanatory will also be used to know the respondent knowledge about ATM, the benefits and problem associated with the use of the ATM.

### 3.3 Sample and sampling technique

Stratified sampling method was used to categories 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 four stratum population an equal chance of being selected in order to avoid being partial in the selection process. The questionnaires were distributed to 58 participants, out of these 42 responded (Response rate 72.41%).

The Yanmane's simplified formula 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

### 3.4 Data Collection Procedure

In order to obtain the relevant data for the study, the researchers obtained information from both primary and secondary sources. With the help of the branch management, the researchers obtained the names and telephone numbers of two hundred (200) customers of the branch. These customers' contacts were distributed to eight staff at the branch. Each staff telephoned twenty five (25) customers to obtain their education level. They made the telephoned customers aware of the purpose of the research, 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 two hundred. After contacting the two hundred customers, stratified sampling was used to categories the population into four stratum namely customers with no formal education, customers with Primary/JHS education, customers with Senior High 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 four stratum. A total of 58 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 analyzed 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 researchers 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 two days to fill and return the completed questionnaires to the researchers. However, at the end of the period when all the questionnaires were to be submitted for analysis, only 42 customers from all the four 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 Data Analysis

The data collected were examined and presented using tables and percentages were necessary.

## 4. Analysis, Discussion and Presentation of Results

### Introduction

This chapter basically deals with the presentation of results based on the analysis of information gathered.

### 4.1 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	28	66.7
Females	14	33.3
Total	42	100

Source: Survey data, 2022

It can be seen from Table 4.1 that 66.7% of the respondents were males and the remaining 33.3% 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
Within KASOA	36	85.7
Outside KASOA	6	14.3
Total	42	100

Source: Survey data, 2022

From Table 4.2 it can be seen that majority of the respondents 85.7% live within KASOA while only 14.3% live outside KASOA. This finding may imply that majority of the customers who use the branch ATM services are resident within KASOA.

#### 4.2.3 Age of respondent

Table 4.3: Age Distribution of Respondents

Age of Respondents (years)	Frequency	Percentage
Below 20	3	7.14
0-29	5	11.90
30-39	16	38.90
40-49	12	28.57
50-59	3	7.14
Above 60	3	7.14
Total	42	100

Source: Survey data, 2022

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 7.14%, those with ages ranging from 20 years to 29 years were 11.90%. Most of the respondents 66.6 %, 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 (14.28%). 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	5	11.90
Primary/JHS	8	19.04
S.H.S	13	30.95
Tertiary	16	38.09
Total	42	100.00

Source: Survey data, 2022

It was found that the least were respondents with no formal education, 5 representing 11.90%, 8 representing 19.04 % of the Primary/JHS and 13 representing 30.95% of the

**Table 4.6:** Distribution of Respondents among Different Occupational Groups

Occupation	Frequency	Percentage
Unemployed	0	0
Employed	17	40.47
Students	10	23.80
Other(s)	15	35.71

Source: Survey data, 2022

From Table 4.6 It can be seen that majority of the respondents 40.47%% were employed of which some where business men, Lecturer and many more, this was followed by other(s) 35.71% off which some of these customers are fishermen, farmers and more and then the students 23.80%. The unemployed were the least respondents representing

Secondary level education. Respondents with tertiary education were larger in number; they were 16 in number which represented 38.09%. This finding suggest 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 level

Monthly income of respondents	Frequency	Percentages
Less than GHC 200.00	2	4.76
GHC200.00-GHC300.00	5	11.90
GHC301.00-GHC400.00	9	21.42
GHC401.00-GHC500.00	8	19.04
Above GHC500.00	18	42.85
Total	42	100.00

Source: Survey data, 2022

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 (42.85 monthly incomes were above the ATM daily limit of GHC 500.00 because most of the customers within KASOA were lecturers while only a few (19.04%) were earning salaries below the ATM daily withdrawal limit of GHC 500.00. The details are represented in table 4.5

**4.2.6 Occupation of respondents**

0%, the researcher found out that most of the unemployed customers were not active members of the bank

**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 to check and print account mini statement?	30(71.4%)	12(28.57%)	42(100%)
Can the ATM be Used to check account balance?	27(64.28%)	15(35.71%)	42(100%)
Is ATM withdrawals free of charge?	9(21.42%)	33(78.57%)	42(100%)
Can the ATM be used to order for cheque books?	6(14.28%)	36(85.71%)	42(100%)
Does the ATM have daily cash withdrawal limit?	35(83.33%)	7(16.67%)	42(100%)
Can the ATM accept Ezwich card?	10(23.80%)	32(76.19%)	42(100%)

Source: Survey data, 2022

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) [11]. 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 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 71.4% 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 64.28% 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 of 21.42 % 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 brand 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 78.57% 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 83.33% of the respondents were aware that the ATM had a daily cash withdrawal limit although only 64% 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 unfavorable to them because they sometimes had to withdraw monies which were bigger than the prevailing daily cash limit. Another category of respondents (23.80%) were also aware that the ATM does not accept e-zwich 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. Agricultural Development Bank (ADB), Kasoa Branch is yet to upgrade its ATM systems to accept the e-zwich 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. 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.

## **5. Summary of Findings, Conclusion and Recommendations**

### **Introduction**

This final chapter summarizes the entire study that came out in reference to the research questions presented. This is followed by recommendations by the researchers and directions for future research.

### **5.1 Summary of findings**

The study explores the use of the ATM services at Cape Coast, Agricultural Development Bank (ADB), Kasoa Branch 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 200 respondents using stratified sampling method to categories 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 Within KASOA, most of the customers ages ranges from 30 to 39 years, most of the respondents were other(s) such as business men and traders, the level of education was fairly high with majority of the respondents having up to tertiary level. It was also found that most of the respondents' monthly income ranges from above GHC 500. 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 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 the use of ATM 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 findings revealed that there is a general perception that ATM services are beneficial in terms of saving time and flexibility in usage. Again, ATM is associated with frequent technical failures and high service charges for savings account holders. 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. However, respondents complained of high charges, technical failures and unfavorable daily withdrawal limit.

## 5.3 Recommendations

It is recommended that management increases the daily withdrawal limit of GHC500.00 to minimize the use of the banking hall by customers. 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. Management should increase the ATM access points in Cape Coast Metropolis and its nearby districts. Also, management should incorporate mobile phone air time top up, utility payment etc. to the existing ATM services to encourage their everyday use. Finally, 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.

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