

Research article

# Assessment of Automated Teller Machines (ATM) At United bank For Africa (UBA) Osun State, Nigeria

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## ABSTRACT

The study explores the use of automated teller machines (ATM), service at United Bank for Africa Osogbo branch. To carry out the research, survey (ex – post - facto) research design was adopted. The target population for the study comprises all commercial banks in Osun state Nigeria but because of time and cost implications, two hundred (200) customers were randomly selected to constitute the sample population for this study. An instrument tagged "Assessment of Automated Teller Machines" was used to collect the data for the study. The instrument is self – constructed by the Researchers. The data collected were subjected to statistical scrutiny such as Mean, Mode, median, Frequency count, percentage spread and standard deviation. The main statistical method used to analyze the data and answer research question is Chi – square statistics. The finding reveals that majority of the subscribers of the ATM prefer it to counter services. On the basis of this finding it was concluded that frequent breakdown, irregular network service, problem of accessibility and limited withdrawal for a day are the main factors contributing to underutilization of ATM services at the bank. It is therefore recommended an improvement in service connected to the use of the facility. Management of the bank was advised to make all ATM transaction and subscription free; fine – tuned master cards are to be in online shopping and all sales outlet across the country at all branches in Nigeria.

**Key words:** ATM, Commercial Bank, Master card, UBA, Internet Banking, Phone Banking.

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## 1.0 Introduction

A bank is a financial institution and a financial intermediary that accepts deposits and channels those deposit into lending activities either directly by loaning or indirectly through the capital market. A bank links together

customers that have capital deficit and customers with capital surpluses. In recent times, Nigerian banks made their services increasingly convenient through electronic banking, using computer to carry out transfer of money. Owing to their influential status within the financial system and upon national economies. Banks are highly regulated in most countries of the world including Nigeria.

Most nations have institutionalized a system known as “Fractional reserve banking” in which banks hold only a small reserve of the funds deposited and lend out the rest for profit. They are generally subjected to minimum capital requirement based on an international set of capital standard known as the “based Accords”. Banking in its modern sense evolved in the 14<sup>th</sup> century in the rich cities of Renaissance Italy, but in many ways in the ancient world.

In the history of banking, a number of banking dynasty have played a central vote over many countries. The oldest existing bank, **Monte deipas chi Siena** was founded in 1472 in Siena Italy. Banks offer many different channels to access their banking and other services [27].

### 1.1 AUTOMATED TELLER MACHINE (ATM)

Although every banking operation requires some technology applications, researchers vary on the subject of the relationship between the level of employed Automated Teller Machines and the value of the banking efficiency increase. All the researchers agree on the importance of ATMs for further development of the banking industry, but some of them have found lack of proportionality between the increased in the scale of technology utilization and the increase in banks profitability [1].

Automated Teller Machine enables banks customers to withdraw money from their current or saving account by inserting the ATM card and a private electronic code into the ATM. The ATM enables bank – customers to access their money 24 hours a day and seven days in a week. Whatever ATMS are located including the foreign counties (Encarta 2009). An Automated Teller Machine (ATM) (America, Australian, and Indian English) also known as an automated banking machine (ABM) in Canada English and a cash machine, cash – point, cashine or sometimes a hole in the wall in British English and Hibernation device that enable the client of a financial institution to perform financial transaction without the need of cashier, human Clark or bank teller (Wikipedia). On most modern ATM the customer is identified by inserting plastic ATM card with a magnet strip or a plastic smart card with a chip that contain a unique card number and some security information such as expiring date.

Authentication is provided by customer entering a personal identification number (pin), using an ATM, customer can assess the bank account in order to make cash withdrawer, debit card account balance as well as purchase pre-paid mobile phone credit. If the currency been withdrawn from the ATM is different from that with the bank account is denominated in e.g. withdrawing US – dollar from the bank account contain Nigeria naira, the money will convert at an official wholesale exchange rate. This ATM provides one of the best possible official exchange rates for foreign travelers.

[16] postulated that ATM allows a bank customer to conduct his/her banking transaction from almost every other ATM machines in the world. However, the spread of the machines has been generating a lot of heat as customer’s face is splurge of frustration in using it, either the machine will not dispense cash or debit transaction when the cash is not dispensed or card get stuck in them. [3] Indicate that the proliferation of the machines is given some concern. As with every other technological breakthrough, the ATMs have generated astronomical challenges and problems for the beneficiaries of financial services in Nigeria.

[5], [8] “ATM played a key role in any retail banks’ efforts to use technology as a quality weapon to defeat competition”. Automated Teller Machine provides a major role in offering convenient, speedy and round the clock services.

Among other schools that highlighted the usefulness of ATM are [17], [18]. They identified the advantages of ATM to the bank as follows: Investment opportunities, reduction in costs (i.e cost saving), effective service delivery, branding of shared network, satisfaction of customers and competitiveness. [9] listed added services as : college fee payment, online collection of application fee, mobile top-up, religious trust donation bill settlement, insurance premium payment fund transfer card to account among others.

[15], stressed that, on the other hand, misuse and abuse of ATM fraud tend to have over shadowed the improvement which it has brought into the services delivery system of Nigerian Financial institutions . Similarly, [19] posit that despite the reality that the introduction of ATM terminals as a banking instrument was lauded by several customer as a alternative to the frustrating queues that characterize the country’s banking hall, the situation today has changed drastically , It has become a source of worry to users and providers (Banks), because the fuction it was meant to provide has been eroded.

## 1.2 UBA's Achievements

UBA stands for United Bank for Africa. It has achieved the underlisted since its registration since 1961.

- i. UBA was the first among international Bank to be registered under Nigerian Law 1961.
- ii. UBA is the first Nigerian Bank to offer an IPO following its listing on the Nigerian stock-exchange in 1970.
- iii. UBA is the first Nigerian Bank to introduce a cheque guarantee scheme the first guarantee card in the history of innovative banking services by any bank in Nigeria known as UBACARD in 1986
- iv. UBA is the first and only Nigeria bank to obtain a banking license in Cayman island, (Banks Licensing Authority) in 1988
- v. First ever and only Nigerian Bank to hit the (NGN)one trillion balance sheet size including contingents
- vi. UBA is the first Nigerian Bank to institute a foundation – UBA foundation the corporate social responsibility arm of the UBA group
- vii. UBA is the first bank in Nigeria embark on a Gross Domestic Reserve GDR programme in 1990.
- viii. UBA introduced first Visa Dual Currency Debit Card in Nigeria
- ix. United Bank for Africa (UBA) attained a landmark achievement when it interconnected its 428 branches making it the bank with largest online real time branch network in Nigeria and Africa. An integration process that was completed months before the normal industry average of 36 months etc.

## 1.3 UBA Awards..

- i. UBA GIS wins money markets' innovation award for West Africa.
- ii. Ranked one of Top 10 banks in sub-Sahara Africa by the Banker Magazine published by the times of London.
- iii. UBA is the first Nigerian bank according to “executive network strength” as measured by “Hiefopexecutives”
- iv. UBA came 9th topmost in Africa and 356th in the world etc.

## 1.4 STATEMENT OF PROBLEM

Within the last two decades, electronic payment has gained popularity in the banking sector especially making use of online networking. Reasons for this are not far-fetched, Millions of naira have gone to the fraudsters' account through the bank-fraud. Many innocent bank-customers have been dispossessed of their hard currencies through the various bank crimes. The importance of electronic banking cannot be over-emphasized such as bringing efficiency and absolute control in the banking service by offering prompt payment. Other problem associated with the former system like being cash-crunched especially during the weekend or while embarking on international travelling transaction have been eradicated. In spite of multifarious advantages of e-banking many customers still do not patronize the use of ATM. Therefore, this study sought to investigate and proffer solution to the underutilization of ATMs by the Bank-customers in Osun state, Nigeria.

## 1.5 Research Questions

The study addressed the following research questions:

1. What are the factors contributing to underutilization of ATM service in the UBA?
2. What are the Management strategies adopted to promote the ATM usage?
3. Does security and privacy have positive and significant relationship with ATM service quality?

## 1.6 Significance of the study

The outcome of this study will have tremendous effects on many stakeholders.

- United Bank for Africa UBA will benefit immensely from the outcome of this study by improving the efficiency of the service to the customer especially through e-banking.
- UBA customers and other banks customers will gain monumentally by increasing their awareness on the importance of using ATM and thus be encouraged to patronize it.

- Financial institution especially Central Bank of Nigeria will increase the institution's income in relation to the number of the tellers employed. This is because fewer staff would be required to carry out customer transaction such as cash withdrawal, printing of bank statements and requesting for cheque book.

## 1.7 Justification of this study

Commercial banking is undergoing rapid expansion as the international economy is becoming heavier as a result of increased patronage. Major force behind this development and rapid expansion is the advent of technology which is breaching geographical, industrial and regulatory barriers, creating new product service and management process. One of the products of global technological change is the advent of electronic banking (e-banking) part of which is automated teller machine (ATM). No amount should be considered heavy in unravelling the problem associated with the use of (ATM) hence the need for this study.

## Review of the Related Literature

### 2.0 Introduction

As described by [5], e-banking is the provision of banking products and services to banks and customers through utilization of various electronic delivery channels. He also stated that the e-banking concept has been in existence for some time although in form of Automated Teller Machines (ATMs) and telephone banking and that in most recent times due to advancement in Information technology (IT), it has been carried out through the use of the internet – a new delivery channel that has helped banks and their customers to carry out transactions conveniently and faster. [5] also holds that the internet offers around the close services irrespective of the customer's location, which gives customers the opportunity with ease and convenience to perform banking transactions such as cash withdrawals, money transfer, payments for goods and services, payment of utility bills, and so on, at any hour of the day.

[8] also posits that e-banking is the automated delivery of banking services and products to customers through the use of electronic interactive communication channels. By this definitions, [8] implies that e-banking platforms or channels enable bank customers to perform banking transactions such as funds transfer, cash withdrawals, payment for goods and services, through the use of interactive electronic media that allow the customers to carry out transactions by themselves without relying on bank tellers.

### 2.1 Concept of Electronic banking

Some authors and researchers have described and defined e-banking in different ways:

2.1.1 Electronic banking is the means by which the services and products of banks are made available to their customers through the use of internet and electronic digital devices irrespective of the location of customer and time of carrying out the transaction [20]. This implies that electronic banking channels enable customers to carry out transactions on their own with ease and convenience.

2.1.2 Electronic banking is the use of electronic channels such as telephone, mobile phones, computer systems, internet etc. for the delivery of banking services and product [23] Etc.

2.2 Electronic Banking Channels in Nigeria.

According to [9], this include Telephone Banking, Mobile Banking, Online Banking, Point of Sale (POS) e-banking, Automated Teller Machine, Smart Card ,etc.

## 3.0 Research Methodology

### 3.1 Research Design

Research design adopted for this study is Ex-post-facto type under survey. According to [12] ex-post-facto is the research condition where the independent variable is inherently not manipulatable because they are already in existence. Inferences and observations are made to deduce reasoning into the available independent variable.

### 3.2 Population and Sample

The target population comprises of all commercial banks in Osun state, Nigeria however because of time limit and cost implications, only united bank for Africa Olonkoro branch in Osogbo, its management staff and two hundred randomly selected ATM users constitute the sample for the study.

### 3.3 Instrumentation

An instrument tagged automated teller machine questionnaire was used to collect the data for this study. The instrument is self-constructed by the Researchers. It contains sections A, B, and C with various items aimed at eliciting information from the respondents on the mode of operation of ATM by the users

### 3.4 Data Collection Procedure

The researcher went personally to administer the instrument constructed personally among the bank's customers at the UBA Osogbo Branch. The instrument administered was collected back immediately to ensure 100% return.

### 3.5 Statistical Analysis Procedure

The data collected were subjected to statistical rigours such as frequency count, percentage spread, mean, mode and median. The mean statistical method used to answer the research question is chi-square ( $X^2$ ) statistics.

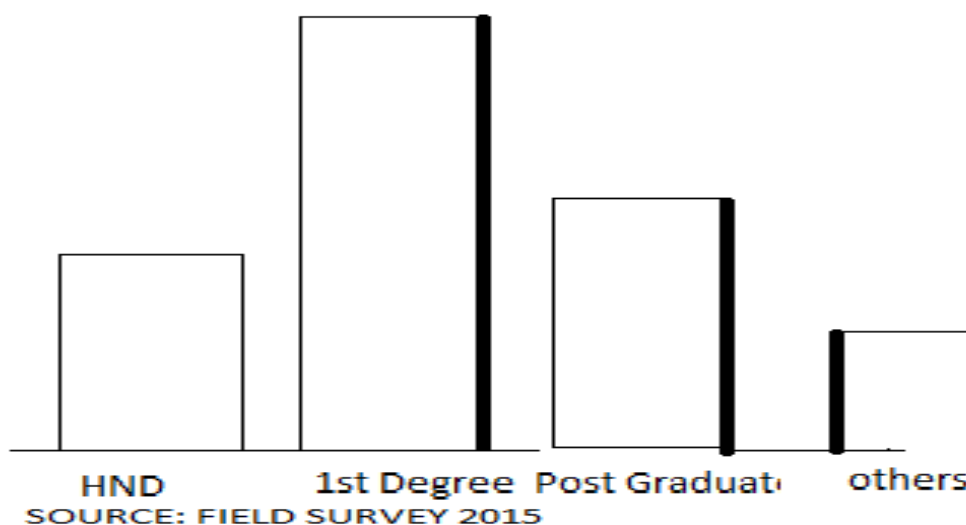
## 4.0 Data Analysis and Discussion

**Table 1.** Levels of Education of respondents.

Levels Of Edu	freq	Percentage	Valid %	Cumulative
Hnd	33	16.5	16.5	16.5
1st Degree	101	50.2	50.5	67.0
Post Graduate	38	18.9	19.0	86.0
Others	28	13.9	14.0	100
Total	200	99.5	100	

The level of education was found to be generally high in the study with many (50.2%) of the respondent having first degree. This was followed by post graduate constituting 18.9% and HND constituting 18.9% and others 13.9%. It implies that the respondent sampled in this study are highly literate. Since they are educated, they can transact with their banks an ATM without specifically going to the bank (withdrawal of money, checking the balance etc.)

**FIG .1**



From the chart above, first degree holders recorded the highest followed by post-graduates, the least of bars are the others which comprises illiterates, diplomas, pensioners and retirees. It implies that most of the respondent understand the technical instrument being used. Since the sample chosen is literate they can use the service of the bank such as ATM and also internet banking. Internet banking refers to system that enables bank customers to get access to their account and general information on the bank product service through the use of the bank website without the intervention or inconvenience.

#### 4.1 Results and Discussions

##### 4.2 Research question 1.

Factors contributing to underutilization ATM services.

**Table 2.**

	freq	Percent	Valid	Cum %
High Atm charge	46	22.9	23.0	23.0
Problem of Accessibility	51	25.4	25.5	48.5
Irregular network service	22	10.9	11.0	59.5
Illiteracy	10	5.0	5.0	64.5
Phobia in elec payment	8	4.0	4.0	68.5
Long queue at peak hour	7	3.5	3.5	72.0
Frequent breakdown of ATM	56	27.9	28	100.0
Total	200	100.0	100.0	

**Source: Field Survey 2015**

From the table 2 above it was found that major problem affecting the use of ATM machines service is frequent breakdown of machine which constitute 28% of the respondents. The category of the respondents indicated that most often the ATM breakdown and the likely reason for frequent breakdown has to do with irregular power supply and durability strength of the machine. It was found that, most often when the customer do not follow the instruction for accessing the service or mix up the step in accessing the service cause the machine to slow down the whole system calling for restarting.

It was also found that when the different electronic payment cards which are not compatible is used with the UBA, ATM causes the machine to freeze. Lack of knowledge in the use of electronic payment card has increased the electronic bank fraud causing some customers to decline the use of ATM service.

Most elderly people are afraid of electronic payment hence, the underutilization of ATM service in the study area. It was also found that another problem facing the use of ATM service is the problem of access to ATM dispensing points, this constitute 51 (25.5%), the respondents found that the UBA Osogbo branch has only two dispensing point apart from those established in other public institution like Osun state university central administration.

Less adequate number of dispensing points compared with large number of customers patronizing the bank has been revealed and ameliorated.

Some respondents 22 (10.9%) also indicated that, irregular network service which is attributable to irregular power supply is another factor contributing to the underutilization of ATM service in the study area. It was found that in most of the time, the internet network service on which the dispensing point rely become unreliable because the network is either slow or unavailable. This condition makes it difficult for customers to access the ATM service. This finding is in line with the study done by Khan 2010, who indicated in his work that technical problem was a major problem affecting the ATM use. It was found that most illiterate customers also do not want to use the ATM facility because they cannot prompt on the dash board of the machine. As indicated in the table, 5% of the respondents expressed their fear of forgetting their personal identification number (PIN), memorizing code and following strict guideline accessing ATM service is difficult for such people.

##### 4.3 Research Question 2

Strategies adopted by the Management to introduce ATM product to the customers from the interview conducted among the staff include the following:

- i. Sensitization of the customers through stakeholders meeting.
- ii. Bank officials and bank customers rapport during and after bank's working hours.

- iii. Extensive use of agents of communication e.g. Radio, Television, Hand bills and Text messaging the customers through their mobile phone numbers.
- iv. The last and the strongest strategy adopted by the bank management is to make the use of ATM a precondition to the withdrawing of cash and payment of electricity bill, water rate and Personal income taxes to the accredited authorities.

### 4.4 Research Question 3

Does Security and Privacy have positive and significant relationship with the ATM service product?

**Table 3** Chi-square table

	Value	Df	Assumpt Sig.
Pearson chi-square	39.880	18	.002
Likelihood rate	37.580	18	.004
Linear by linear association	4.037	1	0.45
N of valid cases	200		0.57

The value of chi-square calculated is 40 approximately which is the same as the manual calculation  
 The value of critical value is 18 at 5% level of significance as 95% confidence level 9.39

Decision

We reject the null hypothesis and do not reject the alternative hypothesis that states there is significant relationship between educational level and factor contributing to underutilization of ATM.

### 4.5 Interpretation of calculation

It can be concluded from the calculation of table 3 that there is significant relationship between educational level and factors contributing to underutilization of ATM. This is not far-fetched on the ground that literate minds always understand and comprehend electronic manipulation of gadget like ATM while the Illiterate minds do otherwise. Among the devices employed by the banks to ensure adequate security and privacy is the issuance of PIN number which belong to the holders of the card alone throughout the hosting community of that bank. Another devices being employed by the bank is installation of circuit camera at the point of dispensing cash to discourage impersonation and other related fraud.

### 4.6 SUMMARY OF THE MAJOR FINDING

Summary of Major Findings

- More males than female are involve in banking activities in the study area.
- Majority of the respondent fall between the age of 30-40 years, this is the age of consolidation of achievement.
- Majority of the respondent are 1st degree holder. It implies that understanding ATM operation will not be a problem to them.
- There is significant relationship between educational level and utilization of ATM among the respondent.
- Banks make use of various information dissemination channels to sell their ATM product to customers.

### 5.0 Conclusion

It is hereby concluded that:

- i. ATM as electronic device in banking transaction is convenient, fast, and makes banking transaction easy.
- ii. It is one of technological innovation that aid across country business devoid of avoidable problems like bank or road robbery.

- iii. ATM makes commercial transaction between individual and corporate bodies less painful, convenient and fast.
- iv. Underutilization of ATM to a larger extent is due to illiteracy and unstable power especially in a developing countries

## 5.1 RECOMMENDATIONS

Based on the finding and the data analysis it is hereby recommended that;

- Banks all over the country should improve their ATM services so as to enhance customer satisfaction.
- Adequate number of ATM machines at dispensing points should be erected by the banks so as to be commensurate with upsurge in customers numbers
- Government at all levels should endeavor to increase the electricity supply so as to boost network capacity of the ATM.
- Constant maintenance of ATM machine should be evolved so as to guarantee uninterrupted breakdown and network failure.
- Banks should intensify their dissemination mission so as to educate their customer on the use of ATM

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