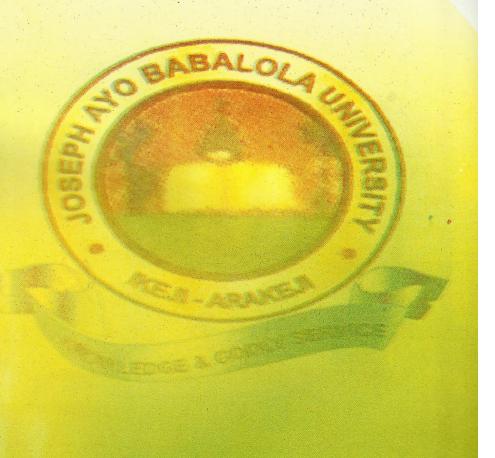
# JABUINTERNATIONAL JOURNAL OF SOCIAL AND MANAGEMENT SCIENCES



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### The Impact of E-Banking on Customers Satisfaction: An Empirical Study of ATM

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#### Abstract

The first giant step in the revolution of electronic banking was the computerization of financial institutions which made marketing of banking services a unique one. With this development, there is a gap of acceptability of electronic banking between potential adopters and early adopters' belief for adopting and continued usage of e-banking. This study investigated the adoption and continued usage of ATM banking in Nigeria. The general objective of the study was to examine customers' satisfaction of electronic banking. The specific objectives were the determination of the acceptability of ATMs as a delivery channel of bank services and customer satisfaction of ATM services provided by Nigerian banks. The study employed a case study method. The primary data that were used for the research were generated through questionnaires administered to respondents by the researchers. Convenience sampling was used to select the respondents. The research variables were measured by a Likert scale. Data were analysed by use of tables, chi-square and coefficient of contingency. There is a significant relationship between ATMs as a form of service and customer satisfaction. ATMs are more acceptable than Tellers in the delivery of banking services in Nigerian banking industry. The percentage of respondents who are users of ATMs is high, therefore, the study recommends the following: even distribution of ATMs for ease of accessibility; language barrier should worked on to ensure that customers are able to interact in at least one of the major three Nigerian languages, and advertisement of other products on the screen of ATMs.

E-Banking, Customers Satisfaction, Banking Services, Automated Key Words: Teller Machines (ATM)

#### Introduction

Electronic commerce popularly known as E-commerce is about doing business online using the power of digital information to understand customers and deliver what each customer needs, as at when the customer needs it. E-commerce is the automation of the business. mechanism involving the deployment of the totality of the applications of modern

technology and communication systems to advertising, marketing and selling anything on the internet.

In recent times, traditional terms have been modified by a few modern adjectives; cheque has become "electronic commerce", banking today is "online banking", business has become "electronic business" and cash is referred to as "electronic cash". Advancement in information technology and communication has recolutionized the methods and manners in which business transactions are carried out.

However, the world is undergoing a revolution in Information and Communication Technology (ICT), which is referred to as the digital revolution. The revolution is already transforming social and economic life close to the speed of light. According to the Okinawa charter on global information society, ICT is one of the most potent forces shaping the 21st century. It is fast becoming a vital engine of growth for the world's economy, creating opportunities for many enterprising individuals, banks, firms and communities globally.

Research has shown that it took 38 years of radio to reach 50 million people and 13 years for television to achieve the same result. Empirical evidence has shown that the same numbers of people adopted the Internet in just 4 years. There were 50 pages on the World Wide Web have increased to 1.8 billion, with a loost two million pages being adopted each day. About 143 million persons worldwide were users of Internet in 1998. In March 2000, an estimated 276 million persons worldwide were users of the internet with a growth rate of roughly 150.000 persons per day. The market for electronic commerce was \$2.6 billion in 1996, \$45 billion in 1998 and it is expected to grow to \$300 commerce was \$20.5 billion in 2002. This could well explode to over \$7 trillion as early as 2004 (UN report).

The foregoing statistics have been given as an introduction because the user of the Internet for e-commerce and for the variety of other purposes is a good indicator of the overall status of a nation's level of information infrastructure development.

The first giant step in the revolution of electronic banking was the computerization of financial institutions, which made marketing of bank services such a unique one (Cronin, 1997). Electronic banking (e-banking) is the newest delivery channel for banking products and activities. E-banking is, "the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels". It can also be defined as a means whereby banking business is transacted using automated processes and electronic devices such as personal computers, telephones, fax machines, internet, card payment and other electronic devices has been used to strengthen customer service levels, increase customer switching costs and expand geographic reach (Cronin, 1997).

It has also improve customer service level by providing new forms of service delivery and customer interface using the internet to improve customer intimacy, rapid responses to customers needs and affording customers the opportunity to help themselves i.e. e-banking saves consumers time(Joseph and Stone, 2003). The most visible form of electronic funds transfer in relation to Nigerian banking sector is the introduction of Automated Teller Machines (ATM). The ATM released banks from constraints of time and geographical location i.e. ATMs offer distinct advantages over traditional teller operations in terms of their location and hours of operation. The introduction of ATM and electronic funds transfer relief the bank staff of some routine functional like processing withdrawals and funds transfer relief the bank staff of some routine functional like processing withdrawals and funds transfer relief the bank staff of some routine functional like processing withdrawals and funds transfer relief the bank staff of some routine functions like processing withdrawals and funds transfer relief the

The motivation of banks to deploy ATMs and share their ATMs with the customers of other banks is area that economists have investigated. Humphrey (1993), examines the motive of deploying ATMs based on costs as influenced by the deployment of ATMs. He finds substantial scale of economics in the production of ATMs services, and that ATM transactions cost about half the amount that the same transaction would cost if it were conducted in a branch of a bank. The other forms of e-banking are internet banking and telephone banking.

With various developments in the banking industry in which technology has the highest input, there is gap of acceptability of electronic banking between potential adopters' and the early adopters and the early adopters beliefs for adopting and continued usage of e-banking. This study attempts to provide a better theoretical understanding of the antecedents of user acceptance and user resistance to adoption and continued usage of ATM Banking in Nigeria.

A major problem area of Electronic Banking lies in the degree of substitutability between ATM and the Teller. The introduction of ATMs was meant to reduce the long queue that has been the tradition in the banking halls, compounded by inefficient and frustrating services. The banks have not been able to put an end to the long queues.

The general objective of this study is to analyse the effect of electronic banking on customers' satisfaction in the banking industry with specific reference to U.B.A and Intercontinental Bank Plc.

The specific objectives are to:

- Determine the acceptability of ATMs as a delivery channel of bank services in Nigeria.
- · Establish the effects of ATMs on customers' satisfaction in the banking industry.
- · Analyse the benefits of ATMs as a substitute of the manual teller system.

#### Literature Review

Electronic Banking is the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash. Simply put, electronic banking has been described as the use of magnetically encoded plastics cards as terminals outside a regular bank location for cheque cashing, deposits and other money transfer functions. Banking has gone digital and a cashless society is slowly being evolved. In the age of electronic banking the use of money in tangible form becomes less important. Electronic banking embraces payment cards (including Credit cards, Cheque cards, Charge cards (Electronic purses), Electronic funds transfer, Automated teller machines, Home banking services through personal computer and telephone facilities and Internet banking. Electronics have provided a new and economical channel for banks to reach out to their customers. It allows customers to access banks amenities round the clock.

Maintaining operational efficiency as well as achieving competitive advantages is one of the main incentives that encourage banks to adopt new technologies of operations. Banks that exploit new technologies can gain competitive advantages through market share, customer satisfaction, and overall business performance. Peffers (1991) in his own opinion argues that banks, which were early adopters of Automated Teller Machine (ATM), gained significantly more than later adoptees. He claims that the use of even single information technology can affect a wide range of performance variables. Information technology also impacts

organizations in other ways, such as changing the decision structure of banks to deal with competition (Clarke, 1989).

Some researchers in the field of e-banking have been engaged in quantifying the existing provision of electronic services by the banks. From an innovation and marketing point of view Daniel, (1999); Scruggs and Nam (2002) Liao and Cheung (2002), Sathye, (1999) and Tan and Paradi (1998) have explored the perception of customers about e-banking or the adoption of the internet as a services delivery channel.

Chase (1978) sought to differentiate services on the basis of the height of customer contact during services delivery and drew attention to high contact versus low-contact services. Although Chase (1978) concentrated on services and products, the financial services market now has a range of delivery channels which also vary in their "contact" potential from "high contact" channels such as the telephone and the internet. Research has also recommended that perceptions of risk are determined by consumer uncertainty and that this is determined by the characteristics of the product or service (Shostack, 1987; Ennew and Wright, 1990). These characteristics of the product are perception of the complexity of the product being purchased, the certainty of outcome associated with that product, and consumers' understanding and knowledge of the product.

It was suggested in a study carried out by Daniel (1999), that convenience, increase choice of delivery channels and enhanced personal control over banking were the driving factors quickening the embracing of electronic banking in the developed world using the United Kingdom and Ireland as point of reference.

The need for a broad range of financial distribution channels to deliver varying service needs of consumer segment has been answered with the far-reaching technology innovation and communications. This development has made the financial distribution channels increasing rapidly both in numbers and forms from ATMs, telephone banking, personal computer banking to internet banking (Easingwood and Storey 1996). Despite this progress, analysis of electronic-banking quality issues becomes an area of interest of researchers and managers (Hughes, 2003; Jayawadhena, 2004).

#### The Need for Electronic Banking

Bank officials identified three primary reasons for their banks offering online banking; keeping existing customers, remaining competitive, and attracting new customers. It could be concluded that electronic banking has been the major weapon which banks are using in the competition for supremacy in the banking industry.

Sciglimpagila and Ely (2002) conducted an empirical study of the internet banking in USA. They reported that the financial institution were at high risk of losing customer relationships and deposits to banks providing online services and virtual banks. Consumer acceptance of online banking is growing thus smaller and less innovative enterprise may be at risk. General customer account relationship is found to be a forecaster of e-banking.

Stamoulis el at (2002) proposed a model for assessing the business value of e-banking distribution channels which applies five perspectives: customer, marketing, finance, technology and strategy perspective. These perspectives can be used to evaluate business values along two view points; internal and external. The internal view means that e-banking distribution channel is considered as a source providing efficiency, effectiveness, market expansion, and

competitive advantage to the financial service provider. Business value from the external view derives from the customer viewpoint, and it is measured by the extent to which the e-banking channels support the relationship between the bank and its customer.

In order to achieve a total service excellence in the banking industry, lots of research works on how to improve on the qualities of electronic banking so as to meet up with the demand of the consumers and to meet with the daily improvement on the existing ICT instruments which are used in the banking industry to improve service being rendered by the banks and also looking for ways of merging the digital that separates the developed, developing and underdeveloped countries. Also, with the wide increased use and acceptance of the internet, the possibility for financial institutions to make available their products and services over the internet have become authentic.

Locket and Littlers (1990) analysis of consumer attitudes to direct banking revealed that the main consumer advantage of direct banking was its 24hour availability. Reducing cost and eliminating doubts has been for a decade now the primary motivation for increasing the role technology plays in the service organization (Kelley, 1989), it has also resulted in the decrease of heterogeneity. This is ubiquitous in the typical employee/client encounter through the consistency of the services (Quinn, 1996).

User acceptance is the biggest obstruction to the success of new Information Technology. Gould, el at., (1991) suggested that adopting an application happens primarily because of the functions it performs and secondarily for how easy or hard it is to make the system perform these functions. Banking is a highly information intensive activity that relies heavily on Information Technology (IT) to acquire, process, and deliver the information to all relevant customers. Banks use the internet technology as a strategic weapon to revolutionize the way they operate, deliver and compete against each other (Seitz and Srickel, 1998). As a result online banking was introduced as a changel where bank customers could perform their financial transaction electronically via their banks websites. An online banking user is expected to perform at least one of the following transactions online.

- Checking account balance and transaction history
- Paying bills
- Transferring funds between accounts
- Requesting credit cards advances
- Ordering cheques
- Managing investments and stock trading.

From a banks' perspective, using the internet is more efficient than using other distribution mediums because banks are looking for an increased customer base. Using multiple distribution channels increases effective market coverage by enabling different products to be targeted at different demographic segments (Wang, et al 2003).

The active use of internet bank service shows that it is via the e-channels that payment of transactions is concluded. The growth of self-service has been exponential and access to internet payments (Karm et al (2003). It has been discovered that part of the reason why some people accepted or adopt the use of electronic banking instead of being present in the banking hall was because they need to pay bills recurrently and would rather do it with least

amount of effort to keep eye on their account, view account balance, and check receiving payments from other parties. It is also an opportunity for some companies to have more than just an account monitoring tool. Several banks for instance provide corporate online banking and allow their clients to invest overnight funds. This can generate substantial profits for a company that has significant, but temporarily, idle cash funds (Marlin, 1998). Companies will also be able to do some sophisticated bargaining and comparison shopping for banking services, since the size and location of the clients become less important. Other banks have developed online banking products specifically tailored to their smaller business clients.

Idowu (2007), argues that ATM services provided by banks and non-financial institutions have emerged the most popular e-business platform in Nigeria. Nigeria e-banking customer survey cards, ATM shows that awareness for banking services rendered by banks is mostly limited to the traditional banking services. Among the more modern banking services such as electronic banking; internet-banking, tele-banking, POS transactions and money transfer, ATM emerged the most popular with 96 percent awareness. The awareness of ATM is also ranked higher than that of current account and slightly below savings account. Although services such as local money transfer, international money transfer, loan facilities and telephone banking have been around before the advent of ATM, they recorded relatively low level of awareness. Every members of the population is given equal and independent chance of being selected.

#### Research Methodology

This research is a case study; two (2) banks were used for the study. Sixty five (65) respondents were selected from each bank, using non probability sampling methods. Primary data were used. The primary data were generated through the use of questionnaires, one hundred and thirty (130) questionnaires were distributed to customers of Intercontinental and UBA Bank i.e. 65 customers from each bank. A total of 73 out of 130 questionnaires were returned, i.e. 37 questionnaires from UBA were returned and 36 questionnaires from Intercontinental Bank Plc were also returned. The response rate was 56 percent which was adequate for analysis.

The variables are measured using Likert scale. The scale measures the intensity or degree of agreement of respondents to the research statements. The Likert scale used in this research had a 5 points rating as follows:

Strongly Agree	(SA)	= 5
Agree	(A)	= 4
Neutral	(N)	= 3
Disagree	(D)	= 2
Strongly Disagree	(SD)	= 1

Data were analysed by the use of tables, chi-square (X<sup>2</sup>) and coefficient of contingency (C).

#### Research Hypotheses

 $H_0$ : There is no relationship between ATMs as a form of bank services and customers satisfaction.

#### **Data Presentation**

TABLE 4.0.1: Analysis of responses to the effect of services to customer satisfaction

Variable	SA	%	A	%	N	%	D	%	SD	%	TOTAL	%
I am satisfied with the customer support provided by the bank on ATM	21	28.8	36	49.3	5	6.8	10	13.7		1.4	73	100
The information given by the customer care on the ATM as first timer is explanatory enough	15	20.5	43	58.8	2	2.73	11	15.06		1.4	73	100
You feel safe in your trans action with the ATM	11	15.1	39	53.42	5	6.9	14	19.2	4	5.5	73	100
ATMs are evenly distribu- ted by the Bank management for easy accessibility	5	6.85	27	36.98	1	1.36	26	35.61	4	19.2	73	100
I am satisfied with the products or services provided by ATM	12	16.44	42	57.53	1	1.36	15	20.53	3	4.11	73	100
I am satisfied with the paymen system provided by ATM	12	16.44	14	56.2	1	1.36	14	19.2	5	6.85	73	100
I am satisfied with the transac- tion procedure	14	19.2	47	64.4	2	2.73	8	10.95	2	2.73	73	100

Source: Field survey, 2008

Table 4.0.1 shows the percentage of the respondents' opinion on the effect of services to customer satisfactions based on the use of ATMs. In the first statement, the percentage of the respondents that were satisfied with the customer support provided by the bank is 78.1% which is more than 50% (Strongly Agree and Agree); 6.8% of the remaining percentage were neutral with the statement and 15.1% do not agree or strongly disagree with the

statement. This shows that respondents that strongly agree are satisfied with the customer support provided by the banks. Following on the same trend is the second statement in which the percentage of the respondents who are in support is above 50% which is more than those that are neither in support or that of those who out-rightly disagree with the statement. The percentage of those that are in support is 79.4%.

68.52% in table 4.0.1 shows the percentage of those respondents who agree that they feel safe in their transaction with the ATM, which like the first two statements is above 50%. 6.9%, the remaining percentage are neutral about the statement while 24.7% disagrees or are not in agreement with the statement on their transaction safely with the use of ATM, which is one of the delivery channels of Electronic banking.

Unlike the last variable, the fourth variable seeks the opinion of respondents that ATM are evenly distributed by Bank management for easy accessibility. 43.83% are in agreement with the ATMs being evenly distributed which is below 50%; less than 2% of the total respondents are neutral while 54% of the total respondents which is a little above 50% disagree that the bank management evenly distribute ATMs for easy accessibility.

Looking at the product satisfaction of the use of ATMs, the percentage of the total respondents that quite agree with the statement is 73.97% which is far above 50%; 24.66% do not agree with the statement while less that 2% of the total respondent were neutral. This shows that the introduction of ATMs as one of the delivery channels has improved the services provided by the banking industry.

Satisfaction based on the payment system and transaction procedure of the ATMs variable had the following responses; out of the total respondents, the percentage of the respondents shows that they both scored above 50% which is on the high side. The percentages are 72.6% and 83.6% respectively of those that are satisfied with the statement. 1.36% and 2.73% of the respondents are neutral on the statement respectively while 26.5% and 13.68% are not in favour of the statement respectively.

#### Acceptability of ATM as a Delivery Channel of Bank Services in Nigeria

This section provides answers to the research objective that is, the acceptability of ATMs as a delivery channel of bank services.

TABLE 4.0.2: Analysis of responses of respondents' acceptance of services

Variable	SA	%	A	%	N	%	D	%	SD	%	TOTAL	%
The information given by the customer care to first time users on the use of the ATM is explanatory enough	15	20.5	43	58.9	2	2.73	11	15.06	1	1.4	73	100
The ATM respond to your request as fast as possible	14	19.2	35	47.94	4	5.5	19	26.02	1 2154 280	1.4	73	100

The ATM provi- les enough of	6	8.21	44	60.3	3	4.10	15	20.5	3	6.84	73	100
your transaction lata and privacy				BA		2011		Ballen Heresald		. 136		100
You feel safe in your transaction with the ATM	11	15.1	39	53.42	5	6.9	14	19.2	4	5.5	73	100
The ATM is user friendly	20	27.4	43	58.9	1	1.4	8	10.95	1	1.4	73	100
Do you agree that the introduc- tion of ATM has solved the	1	35.6	21	28.8	2	2.74	15	20.5	9	12.32	73	100
problem of queuing in the banking hall	1.01							10000	113	a dsive		100
The digital product or services provided by the ATM meets my need	11	15.0	36	49.31	4	5.5	20	27.4	2	2.74	73	100

Source: Filed survey, 2008.

Considering the response given by the respondents on the acceptance of services of the ATMs as analysed and shown in table 4.0.2, the percentage of those that are satisfied with the information given by the customer care to first timers on the use of ATM is explanatory enough is 79.4%, less than 3% of the total respondents are neutral while 16.4% are not in agreement with the statement.

The percentage of the respondents that agree that the ATM respond to their request as fast as possible is 67.14%, 5.5% are neutral while 27.42% of the total respondents disagree with the statement. 68.23% of the respondents agree that they are satisfied with the security of their transaction data and privacy, 4.10% are neutral while 27.34% did not agree with the statement.

In the analysis tabulated in table 4.0.2, the percentage of those that are in agreement with their safety in their transaction with ATMs is 68.52%, 6.9% are neutral about their safety with the use of the ATMs as one of the electronic banking delivery channel while 24.7% are not in agreement with the statement.

One of the factors that bring about acceptance of a product is how user friendly is the product. In the analysis tabulated above in table 4.0.2, 85.82% of the respondents agree that the ATM is user friendly, 1.4% which is less than 2% are neutral while 12.35% of the total respondents believes that the ATMs are not user friendly.

One of the major problem faced by the banking industry before the introduction of ATMs was the long queue in the banking halls but with the introduction of electronic banking in which the ATMs was one of the delivery channels. An evidence of this is seen in the tabulated analyses in table 4.0.2. 64.4% agree that the introduction of ATM as a medium of payment

has reduced the long queue that persisted for so many years in our banking halls. 2.74% of the respondents are neutral while 32.82% disagreed that the introduction of ATM has not solved the problem of queuing in the banking hall.

Finally, on the acceptance of services provided by the bank through ATMs, 64.37% agreed that the digital product or services provided by the ATM meets their need. And of the total number of the respondents, 5.5% are neutral about the statement while 30.14% disagreed with the statement.

I sisohtogyH to isoT

Table 4.0.3: Hypothesis testing 1, there is significant relationship between electronic banking (ATMs) and customers' satisfaction in the banking industry.

Control of the same of the same	N	I	4.2	4.1-	96'I	28.0
Conjection of applications to the conference of	SD	3	3	0	0	0
A beliefe the mandaction of All	D	SI	14	I	I	170.0
MTA shr ythe ATM	VS	15	12.9	6.0-	:8.0	£90.0
I am satisfied with the products or services	A	77	5.95	<i>L</i> .2	6Z.7	61.0
	N	I	2.4	4.I-	96.1	28.0
deliners channel white and year	2D	7	3	I	I	££.0
the same personal about the leaves	D	97	ÞΙ	12	144	10.3
easy accessibility	VS	S	6.21	6.7 <b>-</b>	14.29	5.12
The Bank management evenly distribute ATMs for	A	LT	£.9£	5.21-	62.621	3.85
consider a shelling te genore, at	N	7	4.2	4.0-	41.0	70.0
Markon to server and for	SD	I	3	7-	7	£E.1
	D	II	ÞΙ	£-	6	49.0
of the ATM to the first timer is explanatory enough	٧S	SI	9.21	1.2	17'7	46.0
The information given by the use	A	Et	5.95	7.5	69.51	25.0
	N	ς	7.2	9.2	92.9	28.2
	SD	I	3	7-	t	1.13
	D	10	14	t-	91	1.14
	٧S	17	15.9	1.8	19.29	1.2
I am satisfied with the customer	Y	98	5.95	-· £-	98.01	٤.0
VARIABLE	В	0	Е	O-E	(O-E) <sub>5</sub>	(O-E) <sub>5</sub> \E

I am satisfied with the payment system provided	A	41	39.3	1.7	2.89	0.074
by ATM	SA	12	12.9	-0.9	0.81	0.63
	D	14	14	0	0	0
	SD	5	3	2	4	1.3
	N	1	2.4	-1.4	1.96	0.83
I am satisfied with the transaction procedure	A	47	39.3	7.7	59.29	1.51
	SA	14	12.9	1.1	1.21	0.094
	D	8	14	-6	36	2.57
	SD	2	3	-1	1	0.33
	N	2	2.4	-0.4	1.16	0.067
TOTAL						45.24

Source: Field Survey, 2008

Degree of freedom (F) = (C-1)(R-1)

$$=(5-1)(7-1)$$

$$= 4 \times 6$$

$$= 24$$

Level of significance = 0.05

Chi-square calculated  $(X^2) = 45.24$ 

Chi-square tabulated ( $X^2$ ) value is 36.45 which is higher than the tabulated at 0.05 level of significance, degree of freedom is 24; we therefore reject the null hypothesis ( $H_0$ ) and accept the Alternative hypothesis  $H_1$  which states that there is a significant relationship between ATMs as a form of services and customer satisfaction.

Test of Hypothesis II

Table 4.0.4: ATMs are more acceptable in the delivery of bank services in the Industry.

VARIABLE	R	0	Е	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
The information given by the customer care on the use of the	A	43	37.2	5-8	33.64	0.90
ATM to the first timer is explanatory enough	SA	15	14.7	0.3	0.09	0.006
	D	11	14.5	-3.5	12.25	0.844
	SD	1	3	-2	4	1.333
	N	2	3	-1	1	0.333

TATO						696.22
	·N	7	3	I	I	£££.0
SHEET TO HELD THE SHEET	SD	7	3	3	I-	1
Carlo Carlo Salara Carlo Carlo	D	07	5.41	2.2	30.25	5.09
ny need	VS	II	7.41	7.8-	69.51	186.0
rovided by the ATM meets						
The digital product or services	A	98	2.7.2	2.1-	1.44	8£0.0
	N	7	3	I-	I	£££.0
	U2	0	2	7	16	UI.
	D	SI	2.41	€.0	22.0	710.0
he problem of quening in the	AR	97	7.41	E.11	69.721	*69.8
ntroduction of ATM has solved			seine R	Bellin p		Agmillion (
Oo you agree that the	A	17	2.75	2.91-	44.292	₽\$0.7
Islanda Marian on processing	N	I	3	7-	7	EEE.1
	SD	I	3	7-	7	EEE.1
An ise if to manager of	D	8	2.41	2.9-	42.25	2.913
	ΥS	07	7.41	5.3	28.09	16.1
The ATM is user friendly	¥	EÞ	2.75	8.2	49.88	406.0
	N	ς	3	7	Þ	EEE.I
	SD	7	3	I	I	EEE.0
MTA and thiw	ΨŜ	ii	Σ:‡I	Z:&=	69.51	£6:9
feel safe in my transaction	¥	68	2.7.5	8.1	3.24	60.0
	NI	ε	3	0	0	0
	N SD	ξ .	5	0	0	0
data and privacy		SI	2.41	2.0	22.0	710.0
	AS	9	7.41	7.8-	69.2T	21.2
The ATM provides enough security of your transaction	A	tt	2.7.5	8.9	42.84	1.243
	N	t	3 -	I	I	6.333
	QS	ī	18	7-	t	EEE.1
	D	61	2.41	2.4	20.25	04.1
request as fast as possible	VS	14	7.41	7.0-	64.0	££0.0
The ATM responds to your	A	32	2.7.5	2.2-	48.4	0.130

Source: Field Survey, 2008

Degree of freedom 
$$F = (C-1)(R-1)$$
  
=  $(5-1)(7-1)$   
=  $4 \times 6$   
=  $24$ 

Level of significance = 0.05

Chi-square calculated  $(X^2) = 55.969$ 

Chi-square tabulated  $(X^2) = 36.45$ 

Since the calculated chi-square ( $X^2$ ) value is 55.97 and it's higher than the tabulated at 0.05 level of significance, degree of freedom is 24. We therefore reject the Null hypothesis ( $H_0$ ) and accept the alternative hypothesis ( $H_1$ ) ATM is more acceptable in the delivery of banking

#### Summary

Panks offer technology-based services just to compete and retain profitable customers.

Apart from the traditional type of banking services, customers today require more personalized products and services, and access to such services at anytime, and at any place. Although there is no panacea for banks to stay competitive, ATM Banking is one of the advanced information technologies they can employ to achieve a high level of customer service delivery.

The availability of the ATMs has reduced drastically the long queues in the banking halls which have been a major problem in the past.

Automated Teller machines (ATM) are the most popular channel for banking transactions for both users and potential adopters of electronic Banking. This may be due to the user-friendliness, accessibility and capability of ATMs. In addition to the convenience and accessibility, one can perform a wide range of banking transactions on an ATM. Thus, ATM been widely accepted.

Automated Teller Machines as one of the best banking software at the moment enables 24 hours access to cash with interface with any individual. Banking by ATM, one check his/her account balance, transfer money from one account to another and even withdraw money from any where in the world. Also, customer integrated system (CIS) which is an extension of a transaction processing system that places technology in the hands of bank customers which allows them to process their transaction is responsible for communicating information, decentralizing computing powers in a banking industry by placing that power in the hands of the customers.

So far, the study tried to examine the level of acceptability of ATMs as one of the delivery channels of electronic banking which is a determining factor responsible for customer satisfaction and a structured questionnaire is used for data collection, that asked respondents questions aimed to help the researchers to know the percentage of respondents that accepts the delivery channel i.e. the ATMs.Six factors were presented to respondents. All the respondents included in the data analysis were people who heard about Electronic Banking and are users of the ATMs which are one of the delivery channels of electronic banking before the survey was conducted. The variables are measured using a 5 point rating Likert

Scale. The analytical technique used in analyzing the information obtained from administered questionnaires is the Quantitative approach. This took the form of running percentages, formulation of tables, the use of chi-square  $(X^2)$ , which is a non parametric test of validity of the hypotheses at 5% level of significance, and co-efficient of contingency (c).

#### Conclusions

The concern of this study is the customer satisfaction and acceptability of services based on their use of ATMs. The results showed that there is a high satisfaction with ATM banking in all factors as it was found that there is agreement based on Likert Scale. Through the use of 5 point rating, it was found that all factors have an impact on the customer satisfaction which means that there is a wide acceptability of the ATM as one of the Electronic Banking delivery channels and it was found that the relationship was positive.

The percentage of the respondents who are the users of ATMs is on the high side, there is the need for the bank management to improve more on the following:

- i. To evenly distribute the ATMs for easy accessibility.
- ii. To make the ATMs more user friendly, the bank management should work on the language barrier and see to it that the customers are able to interact in their own language or at least be able to interact in one of the three major languages in Nigeria as this will bring about increase in their customer data base.
- iii. To look for a means of advertising other products on the screen of the ATMs as this will assist the bank to make known other services available to their customer on time.

#### References

- Chase, B.P. (1978) "Money in Electronic Banking: Digital cash, electronic fund Transfer" *ACM*, Vol. 3 No 8, pp. 70 72.
- Clarke, A. T. and Spencer, U. (1989) Special model of ATM pricing by Banks, London: Prentice Hall pp. 205.
- Cronin, M. (1997) Banking and finance on internet (Edited), London: Wiley, John & Sons Incorporated
- Daniel, O. (1999) Delivery channels in banking, London: Practice Hall
- Easingwood and Storey (1996) *Electronic banking portal*, New Delhi: Prentice Hall of India private limited
- Ennew and Wright, (1990), playing with plastic: the Digital Revolution in buying and borrowing, Cambridge: MIT press.
- Gould, et al (1991), Charges on ATM, New York: McGraw Hill.
- Hughes, M. (2003) Computer information system, London: Virgin publishing Ltd, 5th Edition.

- Humphrey, M. (1993) Introduction to electronic Banking. www.cybersource.com
- Idowu ,G. (2007). *Understanding Attitudes and predicting social behaviour*, Englewood cliffs: Prentice-Hall,
- Jayawadhena, D. (2004) Factors that lead a bank share of ATM with other banks (online) www.smscolony.com
- Joseph, M. and Stone, G. (2003), 'An empirical Evaluation of US Bank customer Perceptions of the impact of Technology on Service Delivery in the Banking sector', *International Journal of Retail and Distribution Management* Vol. 31(4), pp. 190 202.
- Karm, T.M. et al (2003) *Cross-Border electronic Banking: Challenges and Opportunities* (Edited). London: Lloyd's of London press, Ltd.
- Liao and Cheung (2002) Foundation of Education and Behavioural Research, Englewood cliff, New Jersey: prentice Hall Incorporated.
- Locket, A. and Littler, O. (1990) *Advantages of Banking 24 hours*, California: Holden Day, Incorporation
- Marlin, W. (1998) corporate online banking, 2nd Edition UK: CRC press LLC.
- Ogbuotogbo, C. (2007) UBA, Intercontinental Bank Plc to lunch deposit taking At Nigerian Stock Market, http://www.stockmarketnigeria.com/2007/06/13.
- Peffers, W. (1991) *E-banking, Management and Control,* McGraw Hill Irwin International edition, New York
- Quinn, C.T (1996), *New bank cards*, Expanded Edition USA: Macmillan publishing company, pp. 12-14.
- Sathye, C. (1999), "Adoption of Internet "ACM Press (Net worker) Vol. 1 issue
- Seitz and Srickel (1998). An instrument for measuring customer satisfaction towards websites that market digital products and services.
- Shotack, C. (1987) *Object Database management system* (online), www.odbms.com.
- Stamoulis, P.A. (2002) *Business value of electronic banking*, Englewood Cliff, New York: Prentice Hall Incorporated
- Tan and Paradi (1998) Deployments of ATMs, Sweden: prentice Hall
- United Nation Report 2004
- Wang et al (2003), Technology Enable services delivery; An investigation of reasons affecting customer adoption and rejection.