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**EVALUATION OF CUSTOMERS' PERCEPTION ON  
ELECTRONIC BANKING USAGE OF UNIVERSITIES IN  
EKITI STATE, NIGERIA**

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**ABSTRACT**

*The study evaluates customers' perception on electronic banking usage in Universities in Ekiti State. The specific objectives of the study were to examine customers' perception on the usage of Automated Teller Machine in universities in Ekiti State; evaluate the effect of customers' perception on the usage of Internet banking in universities in Ekiti State; investigate the impact of customers' perception on the usage of mobile banking in universities in Ekiti State. The population of academic staff, non-academic staff and students of universities in Ekiti State for this study is twenty-five thousand nine hundred and four (25,904). The total sample size was 1099 and it was further divided among the academic staff, non-academic staff and undergraduate students of the three universities in Ekiti State namely Federal University of Oye, OyeEkiti, Ekiti State University, Ado Ekiti and AfeBabalola University, Ado Ekiti using stratified sampling techniques. From 1099 questionnaire administered, 989 were duly filled and returned and used for this research work. Three hypotheses were formulated and tested using Logit regression analysis. The findings showed that the*

*Automated Teller Machine, Internet banking and Mobile Banking unrestricted likelihood of 220.75, 1235.723 and 1162.252 shows that the four variables in the model are important for predicting the overall significance of Null hypothesis at 5% level of significance. The study concluded that most of the customers used Electronic Banking (Automated Teller Machine, Internet Banking and Mobile Banking) as a result of its provision of quick access to money, transfer of money and ease of operation but not mainly on its optimum security. Therefore, it is imperative for banks stakeholders not to restrict their service quality only to the ease of use, reliability, and efficiency but also to improve their service quality on security.*

**Keywords:** Customers' perception, internet banking, mobile banking, Automated teller machine

## **INTRODUCTION**

The rapid growth in electronic distribution channels has produced tremendous changes in the financial industry in recent years globally, with an increasing rate of technology, competition among players and consumers' needs. The banking industry no doubt has witnessed advancement in technology just like every other sector; the adoption of various e-banking channels has affected banking operations entirely. With the adoption of self-service technology by banks, e-banking system has continued to service the populace in which mobile banking is one of them (Adewoye, 2013).

The consolidation exercise in Nigeria's banking sector has drawn the attention of many banks to application of various technological devices in promoting/achieving better bank service delivery that guarantee customer satisfaction (Oyesola, 2007). However, the revolution in the banking industry in Nigeria started with the advent of electronic devices to assist in the discharge of quality services to bank customers. The introduction of these electronic devices has increased competition in the industry which has gone a long way to reduce customers' waiting time for banking transactions. This innovation was brought in by the use of computers and other networking gadgets (Abaenewe, Ogbulu, & Ndugbu, 2013).

Electronic banking is a system which enables financial institutions, customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through various electronic channels (Rajesh, 2007). Today, it would be difficult to see any bank in the country that does not render one form of electronic banking service or the other; even banks in the most remote parts of the world are not left out (Ogunlowore&Oladele, 2014). As Nigeria is taking giant leaps towards globalization, electronic banking is the sector to be studied with great interest. Electronic banking services have afforded banks the opportunities to impress customers which encourage them to keep coming back.

One of the major significance of e-banking services is to improve effectiveness and efficiency in banking operations so that transactions can be processed faster and most conveniently. The advent of the e-banking has brought about a dramatic growth in the volume of online transactions all over the world (Ayo, 2008). Despite the widely acknowledged significance of electronic banking for bank growth, economic development and customers' satisfaction, few developing countries have succeeded in exploiting this developmental potential (Adedara, Sobowale&Folorunsho, 2014).

Despite the effort of banks to ensure that customers reap the benefits of e-banking, banks are still met with long queues in the banking halls, complaints from customers as regards unexpected system failure and cyber security, poor state of electricity, malfunctioning ATMs and payment of hidden cost of electronic banking like Short Message Services (SMS). This study therefore focuses on Evaluation of Customers' perception of Electronic Banking Usage limiting it to universities in Ekiti State using logit regression analysis.

### **Objective of the Study**

The main objective of this study is to evaluate customers' perception on electronic banking usage in Universities in Ekiti State. The study pursues the following specific objectives:

- i. examine customers' (students, academic and non-academic staff) perception of the usage of Automated Teller Machine in universities in Ekiti State;
- ii. evaluate the effect of customers' perception of the usage of Internet banking in universities in Ekiti State;

- iii. investigate the impact of customers' perception of the usage of mobile banking in universities in Ekiti State.

## **REVIEW OF RELATED LITERATURE**

### **Concept of E-banking**

Electronic banking is a high-order construct, which consists of several distribution channels. It should be noted that electronic banking is a bigger platform than just banking via the Internet. However, the most general type of electronic banking in our times is banking via the Internet, in other words Internet banking. The term electronic banking can be described in many ways. In a very simple form, it can mean the provision of information or services by a bank to its customers, via a computer, television, telephone, or mobile phone (Daniel, 1999).

According to Simon, Nana and Abdil (2013) electronic banking is the delivery of banks information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as personal computer and mobile phone with browser or desktop software, telephone or digital television. Electronic banking, therefore, could be categorized into Personal Computer banking, Internet banking, TV-based banking, and Telephone-based banking.

In the past few years, banking activities in Nigeria have increasingly depended on the deployment of information and communications technology. Customers' insatiable appetite for efficient services has compelled financial institutions to fast track to a more radical transformation of their business systems and models for embracing e-banking (Ovia, 2001).

In recent times, e-banking has spread rapidly all over the globe. According to Abaenewe, et al., (2013) the increased adoption and penetration of the Internet has recently redefined the playground for retail banks. In Nigeria, all banks are making greater use of e-banking facilities to provide better services in order to excel in the competitive Nigerian banking industry. The spread of e-banking has also greatly benefited the ordinary customer in general and corporate world in particular. Consequently, e-banking has been the greatest challenge to the banking

industry going by the sophistication and volume of fraudulent practices associated with this form of banking.

Consequently, e-banking has become popular because of its convenience and flexibility, and also transaction related benefits like speed, efficiency, accessibility (Elisha, 2010 cited in Shehu, Aliyu& Musa, 2013). Elisha (2010) described e-banking as the term used for new age banking system, it could also be called online banking and it is an outgrowth of PC banking. That is banking which includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet or mobile phone.

Further, electronic banking is referred to as the process of using the Internet as delivery mode for the provision of services like opening deposit account, electronic bill payments, and online transfers. These services can either be provided by the banks having physical offices or by creating a website and providing services through that or services can be provisioned through a virtual bank as well. The Internet is used as a strategic and differentiating channel to offer high valued financial services and complex products at the same time or improved quality at lower costs without physical boundaries and to cross sell products like credit cards and loans. Table 2.1 below contrasts the various features and functions offered by electronic banking.

**Table 2.1 Features of Electronic Banking Channels**

Features	Mobile Banking	ATMs	Internet Banking
Withdrawals	Not-applicable	Applicable	Not- applicable
Deposits	Not- applicable	Applicable	Not- applicable
Balance Enquiry	Applicable	Applicable	Applicable
Interim Statement	Applicable	Not- applicable	Applicable
Change ATM Card Pin	Not- applicable	Applicable	Applicable
Transfer Fund	Applicable	Applicable	Applicable
Rates	Applicable	Not- applicable	Applicable
Stop Order	Applicable	Not- applicable	Applicable
Stop Payment of	Applicable	Not- applicable	Applicable

Cheque				
Cheque Book Order	Applicable	Not- applicable	Applicable	

Source: FNB Brochure, (2001)

### E-Banking Devices

Olanipekun, Brimah and Ajagbe (2013) outlined E-Banking devices used by banks to include the following:

- i. **Electronic Fund Transfer:** This mode of e-banking handles cheque verification, credit authorization, cash deposit and withdrawal and cash payment. It enhances electronic fund transfer at the point of sales. Thus, customers account would be debited immediately with the cost of purchase in an outlet such as a petrol station or supermarket. The implication of this is that customers can make payment for goods and services without necessarily coming in contact with physical cash as the purchase price would be debited on the buyer's card and credited on the seller's account.
- ii. **PC Banking:** The technology of e-banking has a universe of possible applications. Online banking for example provides the opportunity of paying bills and performing transactions of any kind. The availability of online information has provided with a powerful vehicle for research.
- iii. **Mobile Banking:** This mode of e-banking primarily uses mobile phones as the electronic devices. Mobile phone gives customers the opportunity to operate their account with banks as long as their phones and network services provider support the SMS (short messaging service) which would enable the customer check account balance.
- iv. **ATM:** Automated Teller Machine is a computer controlled device that dispenses and provides other services to customers who identify themselves with a Personal Identification Number (PIN). The physical carriage of cash as well as frequent visit to the banks is being reduced. The principal advantage of ATM is that it dispenses cash at any time of the day even as it needs not to be located within the banking premises but in stores, shopping malls, fuel stations etc. Unlike the traditional method where customers have to queue for a very long period of time to withdraw cash or transfer funds.
- v. **Bankers Automated Clearing Services:** The automation focus of the instrument is to reduce the number of clearing days and improve on security

arrangement in the course of settlement and collection of cheques. It involves the use of Magnetic Ink Character Reader (MICR) for cheque processing which makes it capable to encode, read and sort out cheque, even as request for cheque books can be made via electronic devices.

- vi. **Card System:** it is a unique electronic payment type which involves the use of smart cards. Smart cards are devices with embedded integrated circuit being used for settlement of financial obligations. It can be used as credit card, debit card and even ATM cards. The power of these cards lies in its sophistication and acceptability to store and manipulate data as well as handle multiple applications on one card securely.

## METHODOLOGY

### Research Design

This study used descriptive survey research design. Primary data was used for this study. Data were collected through questionnaire that was administered to selected respondents. The questionnaire was made up of five (5) sections with each of the respective sections containing questions on demographic information, Automated Teller Machine adapted from Idris (2014), Internet banking adapted from Gupta and Bansal (2012), Mobile banking adapted from Sagib and Zapan (2014), and Customers' perception adapted from Avkiran (1994) and Gambo (2013). In collecting the data for this study, questionnaire was distributed to selected academic staff of universities in Ekiti State.

### Population of the Study

The population of the study was made up of the entire academic staff, non-academics staff and students' of universities in Ekiti State as at 31st August, 2015 as shown below.

**Table 3.1: Population of the Study**

<b>Institution</b>	<b>Non-Academic</b>	<b>Academics</b>	<b>Students</b>	<b>Total</b>
Ekiti State University, Ado Ekiti (EKSU)	1,565	625	13,783	15,973
Federal University of Oye (FUOYE)	1,101	302	2,306	3,709

AfeBabalola University (ABUAD)	1,007	388	4,827	6,222
<b>Total</b>	<b>3,673</b>	<b>1,315</b>	<b>20,916</b>	<b>25,904</b>

Source: Author's Computation 2015

## Sample and Sampling Techniques

### Sample Size

The statistical formula applied to determine the sample size from the population of the study as formulated by Muo (2000) cited in Isreal (2009) is stated as follows:

$$\frac{N}{1 + Ne^2}$$

Where n = Sample size to be tested

N = Total population size

e = acceptable error term (0.05)

Therefore, the total sample size is calculated thus:

The sample size for academic staff is:

$$n_{as} = \frac{1315}{1 + 1315e^2}$$

The sample size for undergraduate students is:

$$n_{sp} = \frac{20916}{1 + 20916e^2}$$

The sample size for non-academic staff is:

$$n_{na} = \frac{3673}{1 + 3673e^2}$$

The total sample size was 1099 and it was further divided among the academic staff, non-academic staff and undergraduate students of the three universities in Ekiti State.

### Sampling Technique

For effective coverage, stratified sampling technique was used to select the participating academic staff because not all members of the population have an equal chance of selection. The population shall be grouped into three strata based on the population of an academic staff in each institution. Taro formula by Muo

(2000) cited in Israel (2009) model was used to calculate the sample size of each stratum as below:

$$n = \frac{N_i n_i}{N}$$

Where:

n = Number of respondents from each academic staff of universities in Ekiti State

n<sub>i</sub> = total sample size

N<sub>i</sub> = number in each group

N = population size of the study

Therefore,

**Table 3.2: Academic Staff Sample Size**

S/N	Academic Staff	Sample size
1	EKSU	$\frac{(625)(307)}{1315} = 146$
2	FUOYE	$\frac{(302)(307)}{1315} = 71$
3	ABUAD	$\frac{(388)(307)}{1315} = 90$
	Total	307

Source: Author's Computation 2015

**Table 3.3: Undergraduate Students Sample Size**

S/N	Students	Sample size
1	EKSU	$\frac{(13783)(392)}{20916} = 258$
2	FUOYE	$\frac{(2306)(392)}{20916} = 43$
3	ABUAD	$\frac{4827(392)}{20916} = 91$
	Total	392

Source: Author's Computation 2015

**Table 3.4: Non-academic Staff Sample Size**

S/N	Non-academic Staff	Sample size
1	EKSU	$\frac{(400)(1565)}{3673} = 170$

2	FUOYE	$\frac{(400)(1101)}{3673} = 120$
3	ABUAD	$\frac{(400)(1007)}{3673} = 110$
	Total	400

Source: Author's Computation 2015

From table 3.2, 3.3, and 3.4: 1099 respondents was the sample size of this research study.

### Data Collection Procedures

A self-administered, structured questionnaire was used to gather data from respondents for the study. The researcher first seeks permission from the authority of the universities in Ekiti State to be used for the study. The permission was to allow their premises to be used for this particular study. Each respondent to the study was made to fill a questionnaire after a brief introduction and objective of the study must have been explained.

### Method of Data Analysis

Data to be gathered would be based on sorting, coded and analyzed using descriptive and inferential statistics. The descriptive statistics was mainly percentage and frequency table. Inferential statistics used was logistic regression analysis. Logistic regression analysis was used to examine customers' perception of the usage of Automated Teller Machine in universities in Ekiti State, evaluate the effect of customers' perception of the usage of Internet banking in universities in Ekiti State and investigate the impact of customers' perception on the usage of mobile banking in universities in Ekiti State.

### Model Specification and Estimation

Considering the fact that three different objectives are involved in this study and the fact that each of the three objectives requires different models, variables to be examined were categorized under each of the objectives. The following models are hereby specified:

Objective I: examine customers' (Students, Academic and Non-Academic staff) perception of the usage of Automated Teller Machine in universities in Ekiti State  
ATMU= Automated Teller Machine Usage (Dependent Variable)

CP= Customers' Perception (Independent Variables)

$$ATM = f(CP) \dots \dots \dots (3.1)$$

$$ATM = \beta_0 + \beta_1 PU + \beta_2 PS + \beta_3 PR + \beta_4 PE + \mu \dots \dots \dots (3.2)$$

(Where:  $\beta_0$ = constant;  $\beta_1, \beta_2, \beta_3, \beta_4$  = Coefficient; PU = Perceived Ease of Use, Perceived Security, Perceived Reliability, and Perceived Efficiency,  $\mu$  = error term)

The explanation logistics function will be in form of

$$f(Z) = \frac{e^{a+bx}}{1+e^{a+bx}}$$

Where the input Z and out is f(Z)

e stands for exponential function

a is the parameter

x is ATM

For a multiple independent variable as the case in Objective I, the given logistic model is given as:

$$f(Z) = \frac{e^{a+b_1PU+b_2PS+b_3PR+b_4PE}}{1+e^{a+b_1PU+b_2PS+b_3PR+b_4PE}}$$

The predicted logit (ATM=1) =

$$\beta_0 + \beta_1 PU + \beta_2 PS + \beta_3 PR + \beta_4 PE$$

Objective II: evaluate the effect of customers' perception of the usage of Internet banking in universities in Ekiti State;

IBU= Internet Bank Usage (Dependent Variable)

CP= Customers' Perception (Independent Variables)

$$IB = f(CP) \dots \dots \dots (3.3)$$

$$IB = \beta_0 + \beta_1 PU + \beta_2 PS + \beta_3 PR + \beta_4 PE + \mu \dots \dots \dots (3.4)$$

(Where:  $\beta_0$ = constant;  $\beta_1, \beta_2, \beta_3, \beta_4$ = Coefficient; PU = Perceived Ease of Use, Perceived Security, Perceived Reliability, and Perceived Efficiency,  $\mu$  = error term)

The explanation logistics function will be in form of

$$f(Z) = \frac{e^{a+bx}}{1+e^{a+bx}}$$

Where the input Z and out is f(Z)

e stands for exponential function

a is the parameter

x is IB

For a multiple independent variable as the case in Objective II, the given logistic model is given as:

$$f(Z) = \frac{e^{a+b_1PU+b_2PS+b_3PR+b_4PE}}{1+e^{a+b_1PU+b_2PS+b_3PR+b_4PE}}$$

$$\text{The predicted logit (IB=1)} = \beta_0 + \beta_1PU + \beta_2PS + \beta_3PR + \beta_4PE$$

Objective III: investigate the impact of customers' perception of the usage of mobile banking in universities in Ekiti State.

MBU= Mobile Banking Usage (Dependent Variable)

CP= Customers' Perception (Independent Variables)

$$MB = f(CP) \dots \dots \dots (3.5)$$

$$MB = \beta_0 + \beta_1PU + \beta_2PS + \beta_3PR + \beta_4PE + \mu \dots \dots \dots (3.6)$$

(Where:  $\beta_0$ = constant;  $\beta_1, \beta_2, \beta_3, \beta_4$ = Coefficient; PU = Perceived Ease of Use, Perceived Security, Perceived Reliability, and Perceived Efficiency,  $\mu$  = error term)

The explanation logistics function will be in form of

$$f(Z) = \frac{e^{a+bx}}{1+e^{a+bx}}$$

Where the input Z and out is f(Z)

e stands for exponential function

a is the parameter

x is MB

For a multiple independent variable as the case in Objective III, the given logistic model is given as:

$$f(Z) = \frac{e^{a+b_1PU+b_2PS+b_3PR+b_4PE}}{1+e^{a+b_1PU+b_2PS+b_3PR+b_4PE}}$$

$$\text{The predicted logit (MB=1)} = \beta_0 + \beta_1PU + \beta_2PS + \beta_3PR + \beta_4PE$$

## RESULTS AND DISCUSSION OF FINDINGS

The descriptive statistics was mainly percentage and frequency table used for the Demographic Characteristics of the Respondents.

**Table 4.1: Demographic Characteristics of the Respondents**

	Frequency	Percentage
<b>Gender</b>		
Male	420	42.5
Female	569	57.5
<b>Total</b>	<b>989</b>	<b>100.0</b>
<b>Age</b>		
< 20	272	27.5
21-30	541	54.7
31-51	141	14.3
50 and above	35	3.5
<b>Total</b>	<b>989</b>	<b>100.0</b>
<b>Educational Status</b>		
Undergraduate	633	64.0
First degree	226	22.9
Master's degree	86	8.7
Ph.D.	44	4.4
<b>Total</b>	<b>989</b>	<b>100.0</b>
<b>Income</b>		
50,000	671	67.8
50,000-100,000	199	20.1
100,000-200,000	82	8.3
210,000-400,000	36	3.6
400,000 and above	1	.1
<b>Total</b>	<b>989</b>	<b>100.0</b>
<b>Work Status</b>		
Students	794	80.3
Academic	93	9.4
Non-academic	101	10.2
<b>Total</b>	<b>989</b>	<b>100.0</b>

Source: Field Survey, 2016

Demographic characteristics of the respondents considered in this study include age, gender, educational status, income and work status. Table 4.1 above, shows the gender distribution as four hundred and twenty (42.5%) males out of nine

hundred and eighty-nine of the respondents and five hundred and sixty-nine (57.5%) females. This showed that the females are more conversant with the use of electronic banking than their male counterparts in universities in Ekiti State.

Age Distribution of the Respondents as observed in the study indicates that the respondents within the age bracket of 20 years and below were two hundred and seventy two which signifies a percentage of 27.5 while those within the age bracket of 21- 30 years were five hundred and forty-one with a percentage of 54.7. The age bracket between 31 and 51 years recorded one hundred and forty-one which signifies a percentage of 14.3 and while the age bracket of respondents of 50 and above were thirty-five with a 3.5 percentage. This result shows that majority of the respondents are within the productive ages. In furtherance to complement the result it shows that the modal class of the respondent falls within the ages 21-30.

Educational qualification of the respondents showed that the minimum qualification of the respondents is post-secondary certificate but still pursuing higher certificate (undergraduate) and stand the chance of forty four represents (64.0%), first degree are two hundred and twenty four and Master's degree were eighty six representing 22.6% and 8.7 % respectively, respondents of Ph.D. were forty four (representing 4.4% of the respondents). The implication of this is that all the categories of the academic level are well represented. To this end, the needs of all categories of target audience were adjudged to have been captured in the study.

Work Status analysis revealed that seven hundred and ninety four respondents (80.3%) are students of higher institutions who are not gainfully employed. While ninety three respondents are academic staff in the universities (9.4%) and one hundred and one respondents representing 10.2% of the total population size was non-academic staff. The implication of this is that the larger percentages of the respondents are undergraduates who received transferred payment. This allows them to be more conversant with electronic banking usage.

## **Hypotheses Testing**

### **Hypothesis one**

*Customers' perception (Students, Academic and Non-Academic staff) does not have any significant impact on the usage of Automated Teller Machine in Universities in Ekiti State*

**Table 4.2: Relationship between customers' (Students, Academic and Non-Academic staff) perception of the usage of Automated Teller Machine in universities in Ekiti State**

		<b>Chi<sup>2</sup></b>	<b>-2 Log likelihood</b>	<b>β</b>	<b>SE</b>	<b>Probability</b>
Constant		<b>.875</b>	<b>220.751</b>	<b>4.339</b>	<b>.442</b>	<b>.000</b>
Perceived Efficiency				<b>-.406</b>	<b>.516</b>	<b>.432</b>
Perceived Ease of Use				<b>-.914</b>	<b>.477</b>	<b>.055</b>
Perceived Reliability				<b>-.206</b>	<b>.572</b>	<b>.719</b>
Perceived Security				<b>.392</b>	<b>.647</b>	<b>.545</b>

PU = Perceived Ease of Use, Perceived Security, Perceived Reliability, and Perceived Efficiency,

*Source: Computed output, 2016*

In the model such as 2log likelihood and Likelihood ratio are high and significant, indicating the fit of the model. The parameter estimate of perceived efficiency is negative with a significant ( $P < 0.432$ ) influence on ATM usage in the Universities in Ekiti State. The negative sign associated with perceived efficiency variable implies that the log of the odds of ATM by customers in Ekitiuniversities students reduces by 0.406. The parameter estimate of perceived ease of use is negatively related to ATM usage in the universities in Ekiti State and significant ( $p < 0.055$ ). This result reveals that a unit increase in the number of customers intending to use an Automated Teller Machine will increase the hardship by 0.914. It implies that a unit increase in the number of customer place on ATM usage is vulnerable to increase the rate of inconveniencies in the university environment.

Also, the perceived reliability variable is negative and significant ( $p < 0.719$ ). The negative sign associated with perceived reliability variable in the model implies that using ATM on campuses does not guarantee hundred percent safety on customers account in the university surroundings. For a unit increase in time usage of the customer's automated card, it shows the probability of the account of individual customer to open Internet fraud (Cyber-crime) is at 0.206. In the case of Perceived Security, the estimated result indicates a positive relationship with log of the odds on ATM usage by the customers in the universities in Ekiti State and significant ( $p < 0.545$ ). The positive sign attached to perceived security implies that using Automated Teller Machine in the universities in Ekiti State will lead to 0.392 (39%) security than other means of bank operation.

The high p-value ( $p < .875$ ) for the Hosmer and Lemeshow test chi-squared statistic implies that 4 variables in the model are important for predicting the probability of Automated Teller Machine usage in the universities in Ekiti State. The tests for parameters suggest that each of the effects in the model is significant at the .432, .055, .719 and .545 level respectively (p-values  $< .000$ ). The unrestricted likelihood of 220.75 shows the overall significance of Null hypothesis of the variable at 5% level of significance.

### Hypothesis two

*Customers' perception does not have any significant effect on the usage of Internet banking in universities in Ekiti State*

**Table 4.3: Evaluate the effect of customers' perception of the usage of Internet banking in universities in Ekiti State**

	Chi <sup>2</sup>	-2 Log likelihood	$\beta$	SE	Probability
<b>Constant</b>	<b>3.410</b>	<b>1235.723</b>	<b>.803</b>	<b>.115</b>	<b>.000</b>
<b>Perceived Efficiency</b>			<b>.731</b>	<b>.221</b>	<b>.001</b>
<b>Perceived Ease of Use</b>			<b>-.179</b>	<b>.138</b>	<b>.193</b>
<b>Perceived Reliability</b>			<b>-.246</b>	<b>.187</b>	<b>.189</b>
<b>Perceived Security</b>			<b>-1.002</b>	<b>.178</b>	<b>.000</b>

Source: Computed output, 2016

In the model such as 2log likelihood and Likelihood ratio are high and significant, indicating the fit of the model. The parameter estimate of perceived efficiency is negative with a significant ( $P < 0.001$ ) influence on the use of Internet banking in universities in Ekiti State. The negative sign associated with perceived efficiency variable implies that the log of the odds of Internet banking by customers in universities students in Ekiti reduces by 0.803. The parameter estimate of perceived ease of use exhibits inverse relationship with Internet banking usage in universities in Ekiti State and significant ( $p < 0.193$ ). This result reveals that a unit increase in the number of customers' intention to make payment via the Internet will increase the hardship by 0.179 (0.18%). It implies that a unit increase in the number of customer place on Internet banking usage is vulnerable to increase the rate of inconveniencies in the university environment.

Also in the table the perceived reliability variable is negative and significant ( $p < 0.189$ ). The negative sign associated with perceived reliability variable in the model implies that Internet banking usage on campuses is not at all time dependable for customers in the universities environment. For a unit increase in Internet banking usage by the customers shows the probability of the account of individual customer to be open to Internet fraud (Cyber-crime), and all other social unrest at 0.246. For Perceived Security the estimated result also indicates a negative relationship with log of odds Internet banking usage by the customers in universities in Ekiti State at 1.002 and significant ( $p < 0.000$ ). The negative sign attached to perceived security implies that using Internet banking in universities in Ekiti State will lead to 1.002 (102%) insecurity on the customer's account than any other means of banking operations.

The high p-value ( $p < 3.410$ ) Hosmer and Lemeshow test chi-squared statistic implies that 4 variables in the model are important for predicting the probability of Internet banking activities between bank and its customers in universities in Ekiti State. The tests for parameters suggest that each of the effects in the model is significant at the .001, .193, .189 and .000 p-values respectively. The unrestricted likelihood of 1235.723 shows the overall significance of Null hypothesis of the variables at 5% level of significance.

### Hypothesis three

*Customers' perception does not have any significant impact on the usage of mobile banking in universities in Ekiti State*

**Table 4.4: The impact of customers' perception of the usage of mobile banking in universities in Ekiti State**

	Chi <sup>2</sup>	-2 Log likelihood	β	SE	Probability
<b>Constant</b>	<b>5.295</b>	<b>1162.252</b>	<b>1.296</b>	<b>.125</b>	<b>.000</b>
<b>Perceived Efficiency</b>			<b>-.146</b>	<b>.203</b>	<b>.472</b>
<b>Perceived Ease of Use</b>			<b>-.365</b>	<b>.145</b>	<b>.012</b>
<b>Perceived Reliability</b>			<b>-.051</b>	<b>.197</b>	<b>.795</b>
<b>Perceived Security</b>			<b>-.926</b>	<b>.181</b>	<b>.000</b>

*Source: Computed output, 2016*

In the model such as 2log likelihood ratio is high and significant, indicating the fit of the model. The parameter estimate of perceived efficiency is negative with a significant ( $P < 0.472$ ) influence on the use of mobile banking in universities in Ekiti State. The negative sign associated with perceived efficiency variable implies that the log of the odds of mobile banking by customers in universities students in Ekiti reduces by 0.146. The parameter estimate of perceived ease of use also exhibit inverse relationship with mobile banking usage in universities in Ekiti State and significant ( $p < 0.012$ ). This result reveals that a unit increase in the number of customers' intention to make payment mobile gadgets will increase the hardship by 0.365 (37%). It implies that a unit increase in the number of customer place on mobile banking usage is vulnerable to increase the rate of inconveniencies in the university environment.

The table also enunciates on the relationship between perceived reliability variable and mobile banking to be negative and not significant ( $p < 0.795$ ). The negative sign associated with perceived reliability variable in the model implies that mobile banking usage on campuses is not at all time dependable for customers in the universities' environment. For a unit increase in mobile banking usage by the customers shows the probability of the account of individual customer to be open to Internet fraud (Cyber-crime), and all other social vices at 0.051. Perceived Security estimated result also indicates a negative relationship with log of odds mobile banking usage by the customers in universities in Ekiti State at 0.926 and significant ( $p < 0.000$ ). The negative sign attached to perceived security indicates that using Internet banking in universities in Ekiti State will lead to 0.926 (93%) insecurity on the customer's account than any other means of banking operations.

The high p-value ( $< 5.295$ ) Hosmer and Lemeshow test chi-squared statistic implies that 4 variables in the model are important for predicting the probability of Internet banking activities between bank and its customers in universities in Ekiti State. The tests for parameters suggest that each of the two (2) effects in the model is significant at the .472, 0.012 and .000 p-values and the remaining one is not significant at p-value 795. The unrestricted likelihood of 1162.252 shows the overall significant of Null hypothesis of the variables at 5% level of significance.

### **Recommendations**

The responses obtained from the surveyed respondents were all customers from different universities in Ekiti State (Academic staff, non-academic staff and students). Based on the result obtained from the analyzed data, the following recommendations are hereby stated:

1. That banks should ensure the use of various electronic banking channels (ATMs, Internet banking, Mobile banking) should be made user friendly, meaning they should be made easier to use for customers.
2. That banks should not only assign security, reliability and efficiency measure to electronic banking usage (ATMs, Internet banking, and Mobile banking) but a constant monitoring of the security operations at all channels of electronic banking.

3. They should also create more awareness on how to ensure self-security to customers, so as to stop responding to unnecessary emails and text messages except otherwise, sharing pin with others and so on.
4. That Internet banking service provider should look out for indicators of innovative ways of creating awareness about the service through participation in trade organizations, exhibitions as well as adoption of new technologies of Internet banking.
5. The study likewise reveals that the perception of consumers of electronic banking can likewise be changed by awareness program, friendly usage, less charges, proper security, and the best customer's feedback to services offered.

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