

**The Analysis of Consumer Attitudes towards Online and
Mobile Banking in Nigeria**

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ABSTRACT

Online and mobile banking, not just in Nigeria has experienced tremendous growth. The banking sector in Nigeria has come to experience reasonable amount of changes as a result of the rapid change and contribution of information technology in the society we live in. And it has been widely implemented by banks in Nigeria.

The quest for global significance, have got majority of the banks jumping in on the opportunity the information technology era brings with it.

The development of online and mobile banking system have in one way or the other affected the way in which customers/consumers carry out cash transactions in day to day life.

The purpose of the thesis seeks to examine the meaning of electronic banking and its origin in Nigeria and analyze the degree of consumers' attitudes towards this system of banking, and the challenges they seem to be faced with, with possible suggestion on how the policy can be improved.

Keywords: Online Banking, Mobile Banking, Consumer Attitudes, Behaviour

ÖZ

Online ve mobil bankacılık sadece Nijeryada değil, diğer ülkelerde de hızlı bir gelişim gösterdi. Nijerya'daki bankacılık sektörü de bilgi teknolojilerindeki gelişmeden olumlu yönde etkilendi. Bu etkileşimden dolayı da Nijerya'daki bir çok banka, bilgi teknolojilerindeki gelişmeyi uygulamak zorunda kaldı.

Online ve mobil bankacılık sisteminde oluşan gelişmeler, müşterilerin nakit işlemlerini etkilemiştir.

Bu çalışmanın amacı Nijeryadaki elektronik bankacılık sistemini incelemek ve banka müşterilerinin bu banka sistemine karşı tutumlarını, karşılaştıkları sorunları, zorlukları incelemek ve olası çözüm önerileri sunmaktır.

Anahtar Kelimeler: İnternet Bankacılığı, Mobil Bankacılık, Tüketici Tutum, Davranış

Dedicated to my father, mother, and entire family.

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LIST OF ABBREVIATIONS

TAM: Technology Adoption Model

PU: Perceived Usefulness

BI: Behavioural Intention

PC: Perceived Usefulness

PS: Perceived Security

PT: Perceived Trust

SN: Social Norms

PEOU: Perceived Ease of Use

Chapter 1

INTRODUCTION

In the Business world especially in the banking industry of the 21st century, business are carried out in a more complex and competitive manner that are characterized by ever evolving factors or features with a highly unpredictable climate, thus, information and communication technology play a very important role. Also, Laudon D. and Laudon J. (1991) are of the opinion that banks cannot overlook information system as a result of its important role in their competitive edge both locally and globally, they are of the opinion that majority of the banks survival both financially competitively is highly dependable on information technology it cares to employ.

The adoption of Information and Communication Technology in banking sector is widely referred to as electronic banking (E-banking). And with the adoption of information technology; the mode of its application of concepts, methods, guidelines, and policies to the banking services is now seen as highly important to banks. It affects the management's decision, plan, products and services that are to be offered by the banks. It has completely affected the bank's corporate management and their relationship with their consumers in relationship to services offered. E-banking is can be practiced in various ways. Arunachalam and Sivasubramanian (2007), postulate that E-

banking entails the ability for a customer to carry out banking activities through the Internet using mobile phones or web-browser and computers.

Different authors have sought to define internet banking; various definitions have been giving depending on the researcher, such as; Mobarek (2007) defines E-Banking as a modern way of offering normal banking experiences straight to customers automatically. He is of the opinion that definition for electronic banking differ from one researcher to another, somewhat because it because it has to do with different form of services (Mols, 1998). Kolodinsky et al (2004) tends to agree with this, and goes to say that electronic banking can be defined according to various forms such as; Internet, Telephone, PC, Television and GSM banking. And that the most rapid growing forms of banking are the online and mobile banking.

One of the major functions of internet banking are the payment of bills, transferring of money within and outside of a country, making online payments and account balances enquiries which are done at a significant level of reduced stress as at what used to be obtainable before its implementation into the banking sector, where people had to be physical present at a bank and wait in queues.

The commencement and increasing practice of the use of Internet together with the usage of mobile phones and the acquaintance of personal computers, had paved the way for this kind of internet services offered by banks. Consumers of nowadays are not only interested in online transactions; they feel more comfortable to have SMS option and email options to access their account whenever the need arises. And to a great extent

this has been practiced in Nigeria, which is the focal point for the thesis, thus far, what are the consumer's perceptions towards this global form of banking being practiced? The thesis seeks to analyze consumer's perception towards these services.

So many studies have been carried out as to what internet banking; online and mobile banking technology hold in this global era and its impact in the banking system, it is still imperative that a research be carried out as to determine its progress and if it is sustainable and ways in which to further enhance the services, especially in Nigeria given its current level as one of the fastest growing economy. The cardinal aim of research is to determine the customer's attitudes of online and mobile banking.

The work will examine a relative amount of bank customers that operate the e-banking system to ascertain their satisfactory levels and what they expect.

Chapters 2

LITERATURE REVIEW

2.1 Internet Banking and its' Origin in Nigeria

In 1986 the Structural Adjustment Programme (SAP) which was initiated by the Ibrahim B. Babangida Administration gave way to a new kind of banking that wasn't practiced by the first generation banks. With the immersive increase of banks from 40 in 1985 to 125 in 1991, the SAP gave licenses to emerging banks, which increased the competitive level of the banks. As a result of the increase competition banks sought ways to outdo their rivals and this led to the adoption of the Internet banking as a means for competitive advantage, whereas, e-banking had been practiced by the British since the late sixties. Nigeria commenced the journey of internet banking in November, 1990 when Societe Generate bank launched their first Automated Teller Machine. The Areas of information and communication technology deployment by banks Agboola (2002) discusses the ways these services are offered by banks in Nigeria.

Automated Payment Systems: it uses Automated teller machine -According to Idowu (2005); the introduction of this machine serves as genesis and bedrock of electronic banking. Nigeria had its first experience when the SocieteGenerale Bank first set the pace in November 1990 and it was widely referred to as "cash point 24". He is of the opinion that ATM is principally a cash dispenser, notwithstanding; it has a unique

function of providing service 24/7, which the machine gives you the opportunity to transact limited business without the help of any bank staff unless there is a problem.

Electronic cards: These are:

- a) **Credit cards:** These are plastic cards encoded with electromagnetic identification -The card is integrated with a circuit on which value is loaded. The customers are able to use these cards on ATMs that installed by the banks at various locations with the designated signs of the producer of such card. Quite a number of companies' offer this services to banks amongst the very popular ones are Visa International, the Master Card Inc. which happens to be the second largest credit card company offering these services to banks.
- b) **Debit card:** it is an electronic card with a very advanced feature which includes the use of microchip, whereby transaction is carried out against the chip rather than a magnetic stripe. The companies offering this service to banks also include Visa international, Master card incorporated and a domestic company in Nigeria called smart switch Nigeria Ltd.

Majority of the commercial banks in Nigeria if not all are involved in the provision of this service.

Automated Delivery Channels: These include:

- a) **Home link banking/interactive television banking** -This allows bank customers to transact business right inside their rooms via a television.

- b) **On-line banking** –This involves customers transacting business in any branch; notwithstanding the branch the customer account is domiciled.
- c) **Internet banking** - This refers to the worldwide connection of networks that allows communication with other entities and individual from around the world. It is the connection of computers around the world via cables, telephone lines and satellite. The World Wide Web (www) is the access point for collecting and receiving information across a wide range of computers. Every website has an address which is called Uniform Resources Location (URL). To access any website, the internet address must be inputted in the space for URL (http://...) entry found in the web browser, after entering the address, one is able to "search engine" to locate the required information
- d) **Telephone banking (tel-banking):** This service was introduced by the old standard trust bank limited. Customers could do their banking activities with their telephones. Account balance can be obtained, inter-branch money transfer, withdrawals and deposits alerts can be obtained and enquiry can be made through telephone.

2.2 Guidelines on E-Banking in Nigeria (CBN)

With the regulatory role of Central Bank of Nigeria an Official Committee on e-banking was setup in 2003 and it led to the creation of a policy on e-banking based on the report submitted by the committee the following guidelines were put in place.

The guidelines put in place include the following:

1. Control of the release of e-money products to licensed banks. With the supervision of the CBN.
2. Banks or company with the desire to issue e-money would first have to get clearance and approval of the CBN.
3. Banks or companies are to present a clear report showing the structure, products, security, business plan and disaster recovery plan.
4. Those providing the service are to have a contract agreement with the Nigerian Inter Bank Settlement System (NIBSS).
5. Naira is to be used as the main currency. And if there be a need for the use of foreign currency arises, it is to be provided to those with domiciliary accounts.
6. And it is to conform to the Money Laundering Act 1995 as amended and "Know Your Customer Rules" (KYC).
7. The Banking Supervision Department would evaluate the product as and those who wish to practice it, the overall financial condition of the bank and if it adheres to the CBN rules and regulations.
8. And the banks wishing to enhance or practice this form of service would have to submit an application to the CBN
9. Any amount in excess of N500, 000 and N2million or their equivalent for individuals and corporate bodies is to be made known to the CBN or NDLEA according to the provisions of Money Laundering Decree 1995.

2.3 Challenges Faced by the Regulatory/ Supervisory Authorities on E-Banking in Nigeria

From previous studies carried out by Adewuyi, I. D (2011). The following are the problems faced by the Regulatory/Supervisory authorities in Nigeria. And the major issues are as follows;

1. **Money Laundering:** Money laundering which can be defined as derivation of washy money from illicit activities especially drugs trafficking, advance fee fraud and other forms of illegal activities.
2. **Fraud:** This is the high exposure of the system to phonies, criminally minded individuals who can access, and illegal take money when the system lacks security fitness.
3. **Electronically Generated Evidence:** this is generated documents, from either the hard disk or the floppy disk. This evidence is classified as secondary evidence according to the constitution.
4. **Consumer Protection:** Another major challenge of adoption of ICT it is the inadequacy of statutory to guide consumers of the service.
5. **Job Cut:** Evidence in all IT deployments in developing economies point out the fact that it always comes with massive job cut. In fact, there is no good record that all those who lost their job were gainfully retrained and resettled in their new jobs.
6. **Possibility of Core Business Being Swallowed:** There is the risk of IT taking precedent over core business of banking. In the long-run, it may permanently impair the future competitiveness of Nigerian banks.

2.4 Mobile Banking

Mobile Banking according to Emmanuel Okoegwale (2012) is providing of banking and financial services via a mobile device. It has to do with the ability to carry out banking and stock market dealings and also the ability to carry out some specific account functions. And it is popularly referred to in Nigeria as M-Banking or SMS banking. It entails checking of balance, transactions, payment. This is made possible by a mobile application. M-Banking in Nigeria began, when customers began getting notification or SMS alert via their mobile devices whenever there was an activity carried out. It was more or less a single sided or not a full interactive activity, a situation where customers only received information. According to research GTBank was said to have pioneered this form of banking. Now almost all the Nigerian Banks practice this form of service which were mostly only accessible in the banking hall. Mobile banking has a significant role to play in the financial activity in Nigeria according Enhancing Financial Innovation & Access (2010), which is an organization, a promoter of financial inclusion in Nigeria. The mobile seems to be the most feasible means of providing another form of Branch Banking in Nigeria to a wider population with its ability to deliver services at any point in time and any place, (Arumugamet *al.*, 2008) agrees with this.

Irrespective of how good it might seem, interoperability seems to be the basic shortcomings that seem to still befall it, that is; the capacity for a service, piece of equipment etc., to be operated by different forces or groups. This is as a result of the rapid increase in mobile phone applications. Another pitfall is in the Application distribution for Mobile Banking, some banks are faced with Challenges in this aspect,

while some futuristic Banks are revamping and reducing their over reliance on the settings of mobile phone operators. Given that customers' mobile devices are fixed to a particular setting, mostly which favours entertainment, it is not aligned to that which supports the mobile banking application. The Nigerian banks hoping to gain head way must have their eyes set above the operator's settings which might not be exact or slow in its arrival, or may not necessarily be available.

It would be advisable for banks seeking competitive advantage to make available a scenario where customers can download or have this mobile application on their devices over-the-air or through some designated places without necessarily having to come to the bank, this would go a long way to boost the availability and wide spread of this form of banking.

2.5 Behavioural Intention Theories

Over time there have been efforts, and researches done attempting to understand the correlation of attitudes and behaviour. Such as in LaPiere (1934) study, *attitude vs. actions, social forces*, Also Azjen and Fishbein (1977) argues in favour of the ability of attitudes to foretell behaviour, based on the grounds that they be viewed form the same level. *Principle of compatibility*, states that attitude and behaviour are harmonious to a level where target, action, context and time element are all viewed on the same level as well (Ajzen, 1988). New findings proclaim that attitudes are encapsulated in memory; also that attitude's has a significant role on behaviour (Fazio, 1986: see Chapter 17). Fazio is of the opinion that predominant attitudes are most likely to take charge over behaviour, given their ability to be activated at will. For the sake of this study we would

be taking a look at behaviour, shading more light on behavioural intention theories. In studying behavioural intentions theory two perspectives usually associated with this theory are the diffusion of innovations point of view and the determinants of intention.

2.5.1 The Diffusion of Innovations (DOI) Perspective:

Rogers (1995) was the one who introduced this perspective and he examined a range of things which he labeled to be bases of information system acceptance and level of use, he offered three main insights into the process of social change in the adoption of new innovations, First, Innovation characteristics(IC); seeking to understand what qualities make an innovation spread successfully (Les Robinson 2009). Second, Individual adopter characteristics (IAC), understanding the importance of peer-peer conversations and peer networks and its influence (Les Robinson2009). Lastly, Information sources and communication (ISC); (Les Robinson 2009) puts it as understanding the needs of different user segments. Owing to Diffusion of Innovation Theory (DOI), it assesses the theory based on innovation attributes such as, trialability, ease of use, compatibility, observability and relative advantage.

Relative Advantage Rogers (2003, p. 229). It is seen as the level at were innovation is greater than the idea. The motivation aspects of innovation which can be seen as the cost and social status are said to be basics of relative advantage.

Compatibility Research on this theory of DOI tends to view Relative advantage and compatibility as having some like features; notwithstanding their differences based on Rogers own perspective. Rogers (2003) believes compatibility to be the level at which

innovation is seen as being more prevailing and consistent with what the adopters tend to have more in mind such as values, past experiences, and needs. McKenzie and Sherry (2001, 1997) also believe that the absence of compatibility in Information Technology with the adopters needs, the effect is likely to be negative.

Complexity Rogers (2003) is the level at where an innovation is said to be quite hard to comprehend. He believes it to be opposite to the other features that complexity relationship would be a negative one with the rate of adoption. Stating that the more complex a system of IT is, the more difficult it is going to be adopted.

Trialability. Rogers (2003) he also sees this as the level at which an innovation has the capability to be tried over time, not necessarily causing damage to the consumer, and believes this, to have a more positive relationship with the level of adoption.

Observability Rogers (2003) he views this to be the level at which at which the result from the innovation is popularly made known to people. And just like the others he believes this to have a positive relationship on the rate of adoption by the adopters.

In a nutshell he believes with these features present the more likely is it for an innovation to be adopted easily.

2.5.2 The Determinants of Intention (DOI) Perspective

This view is interested in Attitudes, and Perceived behavior control, Social Norms. This second perspective integrated the theory of planned behavior with decomposed theory

of planned behavior, theory reasoned action, together with technology acceptance model.

The theory of reasoned action (TRA): Fishbein and Ajzen (1975) the connection linking beliefs, norms, attitudes, behaviors of individuals and intentions. Based on their findings, they believe a person's behavior is as a result of the behavioral intention to perform it. They believe two factors come into play, one being, an individual's personal nature and one's social attribute be it social or subjective norms. And there have been research to favour this theory (e.g., Sheppard, Hartwick, and Warshaw, 1988, Bagozzi, Baumgartner and Yi, 1989).

The theory of planned behaviour (TPB): planned behavior theory is an expansion of TRA, gotten from the short comings original model towards behaviors in which individuals do not have complete power. Thus, behavioural intention is usually said to be shaped by a person's attitude together with subjective norm as well as their perceived behavioural control (PBC), showing the limitations on behavior, though its exact nature is still debatable.

The decomposed theory of planned behaviour (DTPB) by Taylor and Todd (1995) sort to solve the limitations faced by the TPB this led to the recommending of a more consistent decomposed beliefs model, the TPB model ushered in the DTPB. The DTPB is alternate side of the TPB model with different features. It is made up of normative and control beliefs as well as attitudinal feature, that are divided into various belief structures. The DTPB was gotten from social psychology and was applied in

information systems usage study to aid in understanding the model for internet service existence. The model divides subjective norm module into interpersonal influence and social influences and perceived behavioural control module of TPB into perceived controllability and Internet efficiency, and the attitude component into perceived risk, perceived playfulness and perceived usefulness. The DTPB is a combination of TPB and innovation of diffusion theory.

The Technology acceptance model (TAM): Davis (1986) established the TAM centered on the TRA, it is most based on the ability to forecast the acceptability level of an information system. The reason for the model was to be able forecast the acceptability of an innovation and to be able to identify the adjustments if necessary, which needed to be done to the product in order to make it acceptable to the prospective users. Davis, Mathieson (1989, 1991) that TAM tends to view perceived usefulness (PU) as a level by which a person relies on in the possibility of the use of a system will add to his or her activity, and perceived ease of use (PEOU) refers to the effortlessness in using the product, and would influence's a person's attitude to use. These two beliefs indicate one's intention. A social norm (SN) which tends to be perceived as a behavioural intention is exempted. According to Taylor and Todd (1995) the TAM can be likened to a certain degree to that of TRA and TPB. Notwithstanding its wide spread favouritism the TAM had faced some criticism by other researchers. One of the criticisms levied against it by Al-Sukkar and Hasan (2005) was its inability in applying it to a larger spectrum of users where it was dimmed of high importance. It overlooked the factors that were seen as external and situational especially at a given condition. Nonetheless Mathieson (1991) believe TAM has been useful in other research in being able to help

understand consumer attitude. Other researchers that favour the TAM are (Muniruddeen, 2007; Davis et al., 1989; Davis, 1993) Wang et al. (2003)

2.6 Consumer Attitudes

It is said that consumer attitudes can be a hindrance or an advantage. From the perspective of marketing Attitude can defined as a broad assessment of a product or service fashioned over a period (Solomon, 2008). Dr. Lars Perner (2010) is of the opinion that consumer attitude is as a result of consumer's feelings, beliefs, and behavioral intentions, that a consumer can have a negative or positive beliefs or feelings about a product. The purpose of the thesis seeks to understand online and mobile banking attitudes in Nigeria. Just as any other product being offered, the attitudes of the customers is imperative to understanding the level of success of the product wishes to attain of have attained. Attitudes are formed out of negative or personal experience either by the individual experiencing it or some other individual or other factors. Oskamp and Schultz (2005) believe that attitudes are somewhat long-term

2.7 Consumer Attitudes; Behavior, Cultural Influence and Adoption of E-Banking.

Previous research carried out on attitude of consumers and the adoption of electronic banking opened quite a few aspects that determine a consumer's attitude, these aspects include motivation, demographic and general behaviour to diverse the technologies and a person's recognition of fresh technology. Nonetheless, studies have shown that the attitudes to these services and some definite behaviour were as a result of subsequent

familiarity of computers and ever growing technology and other additional factors as enumerated below. With a look at demographics feature, Howcroft et al. (2002) displayed younger aged ones, which are the consumers; tend to attach importance to the ease, convenience banking service as compared to the older aged consumers.

Machauer and Morgner (2001) went further to focus their study on dividing the market into benefits and attitudes. With the aid of the cluster analysis they divided the market into four different segment the “*transaction oriented*” set, comprises of those with a solid technology but with feeble attitude of information; “*generally interested*”, comprising of those with a positive technology and a good information attitude; and the “*service oriented*” comprising of those with both a feeble information and feeble technological attitude; and the “*technology opposed*” set, that comprises of those with a solid information but have a feeble technology attitudes.

However their studies was opposed by a recent study which was carried out by Sarel and Marmorstein (2003), which brought to light that the household income and level of education is highly important when it came to the adoption of electronic banking.

Technological acceptance as shown by the literature goes to reveal that unless the personal desires or needs of a consumer is met, it might not necessarily foster the increased adoption of innovation and they may not be willing to change, they would rather stick to that which they are already familiar with (Sathye, 1999).

Past studies shows that previous banking service encounters have an influence on the adoption on new technology. Just as in the research of Lewis (1991) where the reasons

for transition from a different platform of service to the other was as a result off the previous problems encountered, especially from the traditional form of banking like the branch banking to the automated form of banking services. This could be as a result of some many factors such as the stagnant being services rendered in branches, ill-timed branch closing hours, the service scape, and the limited number of personnel's at hand to serve the customers, etc.

(Karjaluoto et al., 2002) in their research they revealed the importance of reference group and their tendencies to influence the adoption of these banking services.

Lastly, Bhattacharjee, Mukherjee and Nath, (2002, 2003) tend to be believed and establish trust and perceived risks to be of substantial positive significance to commitment. (Bhattacharjee. 2002) he ideologically hypothesized and empirically authenticated a scale that would measure individual trust when it came to online firms. He revealed that a person's inclination to handle business with an online company or bank might be anticipated by other factors other than trust, like for instance perceived *PEOU and PU*. Similarly, a person's conviction in an online firm most likely is not as a result of past knowledge of the bank, but other factors come into play such as the institutional, identification calculative and bank belief. In paripassu with Howcroft et al.'s (2002) own research, which claims the imperative aspect in boosting the use of banking online is to decrease the amount or fee charged and a provision of a strong and reliable service. Other issues inhibit the adoption of these services such as insecurity, unawareness.

Mukherjee and Nath (2003) in their research of trust, the issues of common value, opportunistic behaviour and communication seemed to make up the bedrock of trust. These as well led to the highlighting of these roles in trust and adoption of an innovation.

2.8 Attitudes and Aims for Online and Mobile Banking in Nigeria

According to Idowu (2005), the following were what led to the application and implementing of e-banking in Nigeria; he broke it down into three basic platforms, it can be viewed from the part of its importance to the bank, to the customer and to the economy as a whole.

A. To the bank

- I. Facilitation of decision making
- II. Availability of essential information at finger tips
- III. Improved service delivery
- IV. New product development
- V. Savings in space and running costs
- VI. Relevance among league of global financial institution

B. To the customer

- I. Quality services enjoyed
- II. Great reduction in time being spent in banking halls
- III. Confidentiality

- IV. Bank statement, balance etc. obtained at ease
- V. 24/7 service delivery.
- VI. Account could be accessed almost anywhere in the world

C. To the economy

- I. Creation of jobs and specialization
- II. Improvement in commerce
- III. Technological development
- IV. Data bank for National planning

2.9 Cultural Effect on the Attitudes towards Online and Mobile Banking in Nigeria

It is obvious that culture has an effect in the way individuals behave and in some ways rubs off on our attitude. Geert Hofstede's, (1991) cultural dimension, reveals different kinds of national cultures and might aid in comprehending the consumer actions of Nigerians towards the adoption of new technological automated driven services channels. Nigerian consumers have strong uncertainty avoidances, based on the culture analysis of Hofstede, 'Nigeria with a 55 on the dimension and therefore tend to prefer to avoid uncertainty. It is popular according to the research that Countries that have a high level uncertainty tend to stick to a strict belief system and have no flare for change especially into the uncertain., innovation may be resisted'. This implies that there is a need for stringent regulations and legislations to guarantee narrow uncertainties. For this reason, Nigerian consumers tend to be more fretful of threat possibilities of unaccustomed technology driven financial services. In addition, since Nigerian

consumers or customers tend to be fretful about uncertainties they might just prefer to stick to old familiar ways such as branch banking, it is the younger generation now that are becoming more open to changes most especially in the technological areas. Also based on the culture dimensions as postulated by Hofstede, Nigerians are highly collectivists. 'Nigeria, with a score of 30 is seen as been collective in nature. They tend to have a close strong tie to their reference group, be it family, extended family. Irrespective of the diverse cultures in existence, a lot still are fall under this category. So group reference plays and intricate role in inhibit change or adoption of new forms of doing things.

Chapter 3

METHODOLOGY

3.1 Introduction; Overview of the Aims and Objectives of the Research.

A review of the literature outlined the focus of the methodology; the analysis of online and mobile banking consumer attitudes in Nigeria with respect to behavioural intention theories.

In comfortably understanding the entire scope of the research, an evaluation of the literature review leads us to scrutinize our research objectives, with a clearer illustration with the aid of a developed research hypothesis and conceptual research model; with a clear definition of the variables.

Table 1. Questionnaire Dimension

	Quest. Code	Questions	Source (reference).
<i>1) Perceived Usefulness</i>	PU1	Using this banking service saves time.	Davis, F. D. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," MIS Quarterly (13:3), September 1989, pp. 319- 340.
	PU2	I find this banking service useful to manage my finance	Davis, F. D. "Perceived Usefulness, Perceived

			Ease of Use, and User Acceptance of Information Technology," MIS Quarterly (13:3), September 1989, pp. 319- 340.
	PU3	I find this banking service to be convenient	Davis, F. D. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," MIS Quarterly (13:3), September 1989, pp. 319- 340.
	PU4	This banking service helps me to accomplish my banking activities more quickly	Davis, F. D. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," MIS Quarterly (13:3), September 1989, pp. 319- 340.
2) <i>Perceived Ease of Use</i>			
	PEOU1	Using this banking service is easy and clear	Davis, F. D. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," MIS Quarterly (13:3), September 1989, pp. 319- 340.
	PEOU2	Learning how to utilize this banking service is easy	Davis, F. D. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," MIS Quarterly (13:3), September 1989, pp. 319- 340.
	PEOU3	It is the easiest channel to use compared to other electronic payment system	Davis, F. D. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," MIS Quarterly (13:3), September 1989, pp. 319- 340.

3) <i>Perceived Risk</i>			
	PR1	My financial information are secure when using this banking service	Featherman, M. S., and Pavlou, P. A. "Predicting E-Services Adoption: A Perceived Risk Facets Perspective," Eighth Americas Conference on Information Systems, pp.1034- 1046.
	PR2	I enjoy privacy when using this banking service	Featherman, M. S., and Pavlou, P. A. "Predicting E-Services Adoption: A Perceived Risk Facets Perspective," Eighth Americas Conference on Information Systems, pp.1034- 1046.
	PR3	There are possibilities that I would have problems while making transactions through this service	Featherman, M. S., and Pavlou, P. A. "Predicting E-Services Adoption: A Perceived Risk Facets Perspective," Eighth Americas Conference on Information Systems, pp.1034- 1046.
	PR4	There are high worries about bank's actions with errors occurring during transactions with this services	Featherman, M. S., and Pavlou, P. A. "Predicting E-Services Adoption: A Perceived Risk Facets Perspective," Eighth Americas Conference on Information Systems, pp.1034- 1046.
4) <i>Social Norms</i>			
	SN1	Reference group influences my decision to use this service.	Ajzen, I., and Fishbein, M. Understanding Attitudes and Predicting Social Behavior, Prentice-Hall, Upper Saddle River, NJ, 1980.
	SN2	I agree with the opinion of my referents group to keep using this service	Ajzen, I., and Fishbein, M. Understanding Attitudes and Predicting Social Behavior, Prentice-Hall, Upper Saddle River, NJ, 1980.

	SN3	My close friends think that I should use these service	Wu and Chen (2005)
5) <i>Behavioural Intention</i>	BI1	I expect to continue using this service in the future.	Fishbein, M., and Ajzen, I. Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research, Addison-Wesley Publishing Company, 1975.
	BI2	I plan to continue using this service in the future	Fishbein, M., and Ajzen, I. Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research, Addison-Wesley Publishing Company, 1975.
	BI3	I will strongly advocate for others to use this service.	Fishbein, M., and Ajzen, I. Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research, Addison-Wesley Publishing Company, 1975.
6) <i>Perceived Trust</i>	PT1	I can trust this service	Ko de Ruyter, Martin W. and Mirella K. Customer adoption of e-service: an experimental Study, 2000.
	PT2	I can trust that possible problems will be solved well	Ko de Ruyter, Martin W. and Mirella K. Customer adoption of e-service: an experimental Study, 2000.
	PT3	I can trust this service less than other services	Ko de Ruyter, Martin W. and Mirella K. Customer adoption of e-service: an experimental Study, 2000.

3.2 Variables in the Model and their Definition

- 1) *Perceived Ease of Use (PEOU)* is degree customers perceive e- banking would be easy (Davis et al., 1989).
- 2) *Perceived Usefulness (PU)* the level customers believe that e-banking will enhance their bank activities when adopted.
- 3) *Perceived Security or Risk (PS)* is the belief that the company can protect their daily transactions of the customers
- 4) *Perceived Trust (PT)* the strong belief that the promise would be kept by the other party (Mayer et al., 1995).
- 5) *Social norms (SN)* this refers to a customer's perception of the pressure from the society to carry out certain or specific task (Ajzen and Fishbein, 1980).
- 6) *Behavioural intention (BI)* customer's subjective likelihood to implement or exhibit behaviour (Fishbein and Ajzen, 1975).
- 7) *Demographics (D)* it is the classification or profiling of a group of people into different strata such as age, income, sex, marital status, education etc.

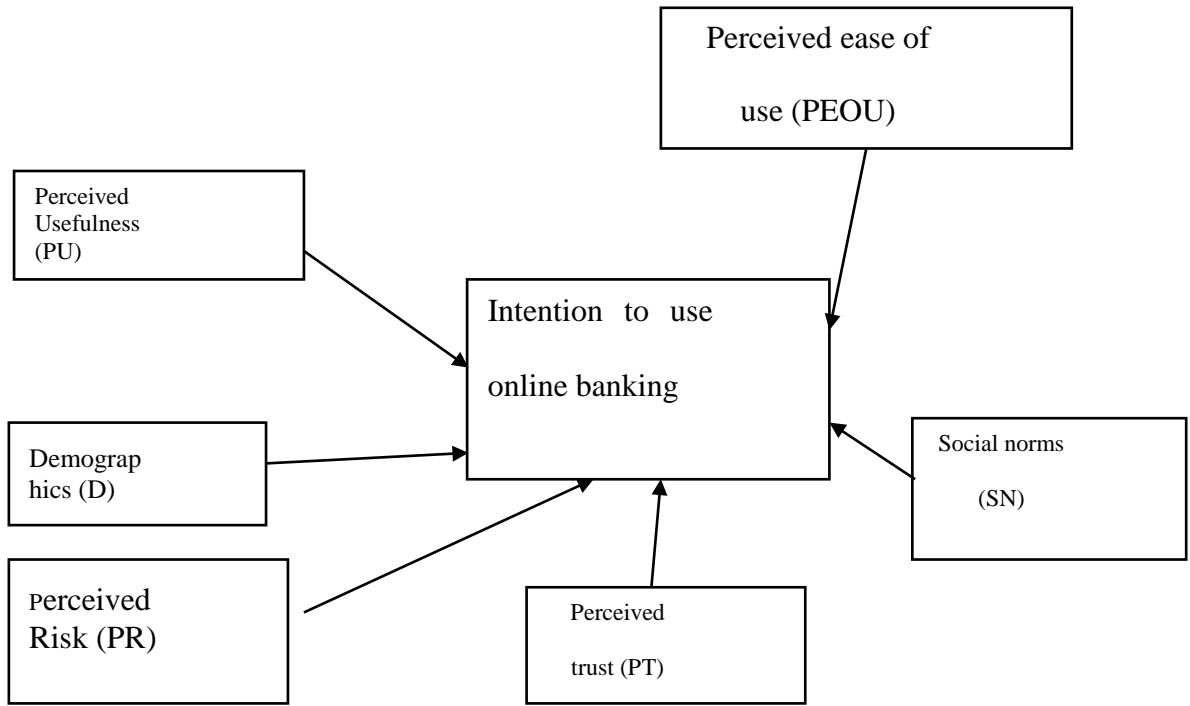


Figure 1. Research Model for Online Banking

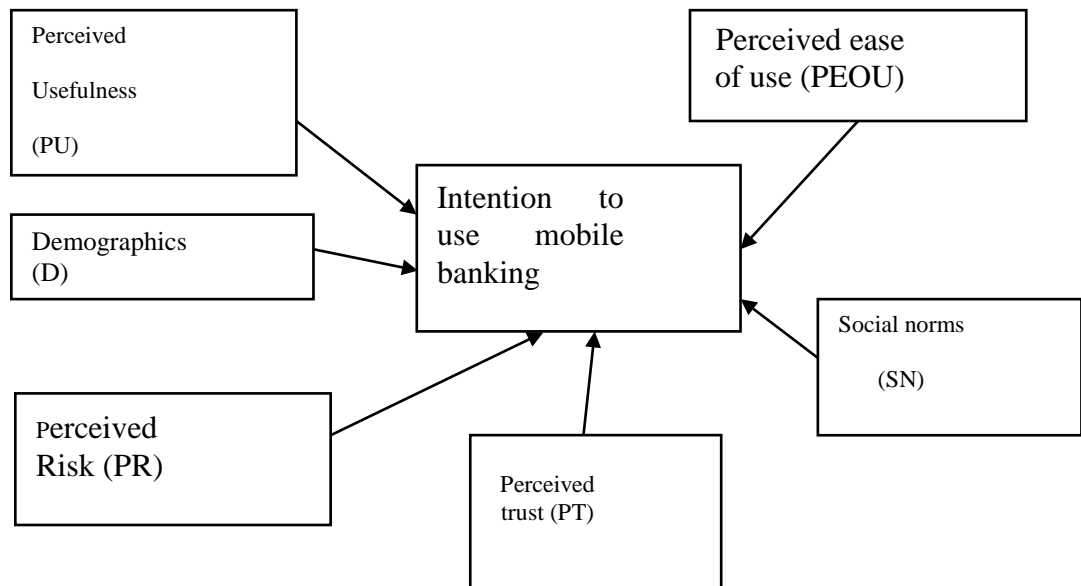


Figure 2. Research Model for Mobile Banking

3.3 Research Objectives

The recognition of online and mobile banking by Nigerians have been said to have transformed radically therefore it was imperative carry out a research in this sphere, to sort out the market segments. As a result, the intentions of this research are to:

- To ascertain the customers for online and M-banking;
- To comprehend the demographic characteristics of customers of these services
- To compare attitudes towards these services with respect to the TAM; PU, PEOU, PR, SN, PT and BI as the dependent variable.

3.4 Proposed Hypotheses

From the conceptual research model developed above, the following research hypotheses are formulated based on the literature review. So many factors come into play in developing the hypothesis, factors not farfetched from Nigeria such as the issue of corruption and an obtuse delivery of services, thus necessitating the development of the hypothesis.

H1: Perceived Usefulness influences Intention to use Online Banking

H2: Perceived Risk influences Intention to use Online Banking

H3: Perceived Trust influences Intention to use Online Banking

H4: Perceived Ease of Use influences Intention to use Online Banking

H5: Social Norms influences Intention to use Online Banking

H6: Perceived usefulness influences Intention to use Mobile Banking

H7: Perceived Risk influences Intention to use Mobile Banking

H8: Perceived Trust influences Intention to use Mobile Banking

H9: Perceived Ease of Use influences Intention to use Mobile Banking

H10; Social Norms influences Intention to use Mobile Banking

3.4 Research Design

A quantitative research technique was engaged for the research. The research instruments are the consumers or users of bank services. And sample from the

population. The mode that was used in the collection information from Respondents was through a Likert scaled questionnaires that were being administered. It helped in making the respondents stick to the particular aim of the research, thus, making the results validly representative of the views of the participants in in line with the research.

3.5 Population for the Research

The population for the research is focused on Nigeria. Nigeria happens to be a very large country in the West African region, consisting of thirty-six states with the FCT in total. Nonetheless, six cities were selected; Abuja, Lagos, Port-Harcourt, Kaduna, Warri and Onitsha. Quite a number of reasons played an important role for the selection of these cities for the purpose of our research. And they are as follows

Lagos

Lagos tends to be the largest city in Nigeria. And being regarded as the financial, commercial hub of the country, with a population of 24,000,000 (Adewuyi and Akinade, 2010).

Abuja

Abuja is the capital of Nigeria. Being a large commercial city and the county's capital it was imperative for the research.

Port-Harcourt

Being located in the southern part of Nigeria, with natural and gas companies it would boast of a lot of economic activities, and a different level of standard of living.

Kaduna

Being located in the north, is a trade midpoint especially for the agricultural areas in the north would boast of a different style and economic way of living

Warri

Being one of the cities with the highest production of crude oil, located in the south - south, its economic life style tends to be somewhat different, with lots of economic activities going on.

Onitsha

The city of Onitsha, a commercial city in Anambra State, southeastern Nigeria, with one of the largest markets in Nigeria and West Africa, most of the economic activities tend to be trade, and would come in handy for the research

3.5.1 Samples/Subjects of the Research

The samples were randomly selected from the population. Irrespective of being Africa's most populous country research carried out by KPMG (THISDAY, April 2013), has revealed that only 20 percent of its population is actually actively involved in the usage of banking service.. So it was imperative in identifying the users of banking services and what form of banking services they used. The users of the banking service were administered questionnaires with questions about the main research objective.

3.6 Variables and Factors Introduced

The variables and factors that were introduced, where none other than the variables for the TAM; PEOU and PU and PT, PR, SN and BI

3.7 Data Collection

The data was collected quantitatively. Random samples of consumers were met indiscriminately in the six major cities. Upon meeting, individuals were handed questionnaires. These questionnaires included demographical questions, the TAM variables and questions that were thought as to aid information as to determine users frequent or familiarity with the internet.

3.8 Limitations of the Study

The limitation was mostly faced during the research is one that is wide spread which, is:

3.8.1 Security Situation of Nigeria: giving the security level in the country, this made it quite a problem, as some of the respondents did not feel comfortable giving out information for the fear of any uncertain that they had presumed.

3.9 Proposed Analysis for the Demographic Data

It was analysed using the SPSS, it on the Age, Gender, City of Resident, Occupation, Marital status, Educational level and monthly income. To analyse the age categories it was divided into six Classes

Age

Class 1 – Age Under 18

Class 2 – Age 18 to 30

Class 3 – Age 31 to 40

Class 4 – Age 41 to 50

Class 5 – Age 51 to 60

Class 6 – Age 60 and Above

Therefore, the Class number or code would be used in computing age number during the computation.

For **Gender**, it is divided into two Classes

Male – 1

Female– 2

Six Classes was structured for the **Education** level

- 1- Primary school
- 2- Secondary school
- 3- High School
- 4- Bachelors
- 5- Masters
- 6- PhD.

Marital Status

- 1- Married
- 2- Single
- 3- Divorced
- 4- Others

Monthly Income

- 1- 100k and less
- 2- 100 to 200
- 3- 200 to 300
- 4- 300 to 400
- 5- 400 to 600
- 6- 600 and above

3.10 Proposed TAM Variable Analysis

The TAM questionnaire is designed to collect data from respondents and measure the data in a Likert scale format based on five main variables. The variables to be measured are PU, PEOU, PR, SN, BI, and PT.

Participants are expected to have “1” point if they strongly disagree, 2 point if they Disagree, 3 points if they are Indifferent and 4 points if they Agree and 5 points if they Strongly Disagree.

3.11 Proposed Descriptive Analysis

Demographic analysis

This is the use of basic statistical measures to help in properly understanding the data which will be collected from respondents.

3.12 Proposed Reliability Test

This calculates the correct score, in relation to the error. Consistency of an instrument is said to be consistent if it measure that in which it is intended to. Cronbach's alpha was used to test it.

3.13 Proposed Correlation Analysis

Paired Sample t-test

Paired sample t-test which is said to calculate the significant dissimilarity between the two mean values, and the test is grounded on the paired dissimilarities between the two values.

3.14 Proposed Factor Analysis

This method is used to understand inconsistency in what is being experimented, the correlation of variables in terms of a potential indication of a lower number of unseen variables are called factors.

3.15 Proposed Regression Analysis

We implore the use of a regression analysis when we want to forecast the significance of a variable centered on the value of other different variables. The variable we want to forecast is called the dependent variable or also known as the outcome variable. The variables being used to predict the other variable's value is called the independent variable otherwise known as the predictor variable.

Chapters 4

ANALYSIS, EMPIRICAL FINDINGS AND DISCUSSION

4.1 Samples/Subjects of the Research/ Data Collection

300 respondents from six major cities in Nigeria; Lagos, Kaduna, Port Harcourt, Warri, Onitsha and Abuja, were met indiscriminately in the streets and interviewed. Respondents were handed a well-designed questionnaire. The response rate was 53 per cent which meant 160 people partook in the survey.

The sample size choices were predominantly based on cost and coherent with previous research on consumer attitude and taking on of e-banking. It wasn't wholly representative of the Nigerian populace, as it did not touch too much of the rural masses. Nonetheless, the market for online and M-banking in Nigeria are most likely to be those people from the urban and somewhat the wealthy ones in the society, so we were able to obtain a partial sample of the population. The respondents' were interested or inclined to participate, they thought it to be an interesting issue to lay out their opinions about. The survey laid emphasis on those that use online and M-banking. The questionnaire elements were fashioned on the consumer behavioural intention theory, mostly in relation to the Technology Acceptance Model (TAM). The questionnaire paid attention to the resulting focal questions of concerns like; *Perceived Usefulness*,

Perceived Ease of Use, Perceived Risk, Social Norms, Behavioural Intention, Perceived trust, Demographic factors

4.2 Demographic Data Analysis

Demographic data for the research which was gotten from 150 participants involved

1. Gender: if the participants are male or female
2. Age: The actual years lived by the participant(s). The age data for this study will be further classified into sub-categories to represent the entire population.
3. City of residence: this is to determine where respondents actually live in Nigeria
4. Occupation: The work which the participants are involved in or actively doing for a living.
5. Marital status: this is to know the relationship status of respondents
6. Educational Level: The educational level of the participants
7. Monthly income: this is actual amount respondents earn as income on monthly basis.

4.2.1 Descriptive Analysis of Online and Mobile Banking Users

Table 2. Demographic Analysis

Demographics	Frequency	%	Valid %	Cummulative %
<i>Gender</i>				
Male	97	58.1	58.1	58.1
FEMALE	67	41.9	41.9	100.0
Total	160	100.0	100.0	
<i>Age</i>				
under 18	6	3.8	3.8	3.8
18-30	122	76.3	76.3	80.0
31-40	26	16.3	16.3	96.3
41-50	5	3.1	3.1	99.4
51-60	1	.6	.6	100.0
Total	160	100.0	100.0	
<i>City</i>				
Lagos	11	6.9	6.9	6.9
Kaduna	29	18.1	18.1	25.0
Abuja	85	53.1	53.1	78.1
Warri	11	6.9	6.9	85.0
Port Harcourt	10	6.3	6.3	91.3
Onitsha	14	8.8	8.8	100.0
Total	160	100.0	100.0	

Occupation

Civil servant	24	15.0	15.0	15.0
Student	111	69.4	69.4	84.4
Business owner	12	7.5	7.5	91.9
Doctor	4	2.5	2.5	94.4
Lawyer	8	5.0	5.0	99.4
Engineer	1	.6	.6	100.0
Total	160	100.0	100.0	

Marital Status

Married	39	24.4	24.4	24.4
Single	111	69.4	69.4	93.8
Divorced	2	1.3	1.3	95.0
Others	8	5.0	5.0	100.0
Total	160	100.0	100.0	

Education

Primary school cert.	1	.6	.6	.6
Secondary school	2	1.3	1.3	1.9
High school	55	34.4	34.4	36.3
Bachelors	85	53.1	53.1	89.4
Masters	14	8.8	8.8	98.1
Ph.D.	3	1.9	1.9	100.0
Total	160	100.0	100.0	

Income

100NGN and less	81	50.6	50.6	50.6
100NGN- 200NGN	39	24.4	24.4	75.0
200NGN- 300NGN	12	7.5	7.5	82.5
300NGN- 400NGN	5	3.1	3.1	85.6
400NGN- 600NGN	5	3.1	3.1	88.8
600NGN and above	18	11.3	11.3	100.0
Total	160	100.0	100.0	

Do you use Internet?

YES	158	98.8	98.8	98.8
NO	2	1.3	1.3	100.0
Total	160	100.0	100.0	

Do you have a Facebook Account?

YES	152	95.0	95.0	95.0
NO	8	5.0	5.0	100.0
Total	160	100.0	100.0	

What form of banking do you use?

Online banking	77	48.1	48.1	48.1
Mobile banking	34	21.3	21.3	69.4
Branch banking	49	30.6	30.6	100.0
Total	160	100.0	100.0	

The descriptive statistical analysis showed, though not too a large extent but a reasonable amount of dissimilarity in the proportion of female and male respondents in this survey, with 41.9 percent female and 58.1 percent male.

Respondents within the age bracket of 18 years and below were 3.8 percent, while those within the age range of 18 to 30 with a high rate of response of 76.3 percent, followed by age range of 31 to 40 at 16.3 percent, and 41 to 50 at 3.1 percent and last and the lowest at 0.6 percent. It is obvious that the younger aged ones had a higher and were more willing to participate.

Abuja had a higher response to the survey at 53.1 and Kaduna at 18.1 and Onitsha at 8.8 while Lagos and Warri had an equal response rate of 6.9 Port Harcourt with a lower response rate of 6.3.

As well as the various responses from various occupations that was taken into consideration, as revealed by table 4. With students with a higher response of 69.4 percent, followed by civil servants; that is government workers with a response of 15.0 percent, and business owners at a response of 7.5 percent, lawyers at 5.0 percent and Doctors at 2.5 percent, and engineers at 0.6 percent.

Also the descriptive analysis shows the response in marital status, with those in the single category with a high rate of 69.4 percent and those married at 24.4 percent, while divorce and Others at 1.3 percent and 5.0 percent respectively

Also a clear and simple analysis shows that those with high school qualification had a response of 34.4 percent and Bachelors 53.1 percent, while masters qualification at 8.8 percent, PhD at 1.9 percent, secondary and primary 1.3 percent and .6 percent respectively.

It also revealed the income level of the respondents; with those that earn 100 thousand naira and below topping the chart at 50.6, which clearly reveals that about half of the sample population that took part in this research and a monthly income of 100 thousand naira, followed by those that earn 100 thousand naira to 200 hundred thousand naira monthly, had a response of 24.4 percent. While those that earn 200 to 300 with a response of 7.5, and those that earn 300 to 400 thousand naira with a Out of the whole number of number of respondents only 1.3 percent declared not using the internet, so it is believed to a large extent that a great number of the respondents actively use the internet, at a response of 98.8 percent.

5.0 percent of the total sample that participated in the research declared not to have or use Facebook accounts, while 95.0 percent accepted to be owners and operators of Facebook accounts.

And lastly 48.1 percent of the sample population tends to be more users of online banking service as compared to the 21.3 percent of mobile banking service users and 30.6 of Branch banking service users

4.3 Reliability Test

The table below shows, the level of internal consistency or reliability for the online banking, with the aid of SPSS application.

Table 3. Reliability test for Online and Mobile Banking

	Cronbach's Alpha α	N of Items
Online Banking	.913	20
Mobile Banking	.909	20

The analysis of the consumer attitudes of the online banking consisted of 20 items ($\alpha = .913$), the while the analysis of the consumer attitudes of the mobile banking consisted of 20 items also ($\alpha = .909$).

Cronbach's alphas for the online and mobile banking items were .913 and .909, respectively.

4.4 Paired Sample Test

In other to validate our hypothesis of customers attitudes to online and M-Banking in Nigeria, as to whether there is a significant difference in the attitude concerning online banking service and the mobile banking service, it was dimmed necessary to carry out a paired samples t test with the hypothesis being;

With the aid of the SPSS a paired sample t test was carried out, as the table below shows.

Table 4. Paired Samples Test for Online and Mobile Banking

	Statement	Mean	Std. Dev.	t	df	Sig. (2-tailed)
Pair 1	Using this banking service saves time - Using this banking service saves time	.081	1.327	.775	159	.440
Pair 2	I find this banking service useful to manage my finance - I find this banking service useful to manage my finance	.056	1.240	.574	159	.567
Pair 3	I find this banking service to be convenient - I find this banking service to be convenient	.181	1.212	1.891	159	.060*
Pair 4	This banking service helps me to accomplish my banking activities more quickly - This banking service helps me to accomplish my banking activities more quickly	.056	1.270	.560	159	.576
Pair 5	Using this banking service is easy and clear - Using this banking service is easy and clear	.188	1.299	1.826	159	.070*
Pair 6	Learning how to utilize this banking service is easy - Learning how to utilize this banking service is easy	.181	1.268	1.808	159	.073*
Pair 7	It is the easiest channel to use compared to other electronic payment system - It is the easiest channel to use compared to other electronic payment system	.100	1.337	.946	159	.346
Pair 8	my financial information are secure when using this banking service - my financial information are secure when using this banking service	-.075	1.358	-.699	159	.486
Pair 9	I enjoy privacy when using this banking service - I enjoy privacy when using this banking service	.056	1.214	.586	159	.559
Pair 10	There are possibilities that I would have problems while making transactions through this service - There are possibilities that I would have problems while making transactions through this service	.038	1.021	.465	159	.643
Pair 11	There are high worries about bank's actions with errors occurring during transactions with this services - There are high worries about bank's actions with errors occurring during transactions with this services	.019	1.119	.212	159	.832
Pair 12	Reference group influences my decision to use this service. - Reference group influences my decision to use this service.	-.044	1.027	-.540	158	.590
Pair 13	I agree with the opinion of my referents group to keep using this service - I agree with the opinion of my referents group to keep using this service	.063	1.175	.673	159	.502
Pair 14	My close friends think that I should use these service - My close friends think that I should use these service	.006	1.211	.065	159	.948
Pair 15	I expect to continue using this service in the future. - I expect to continue using this service in the future.	.181	1.307	1.754	159	.081*
Pair 16	I plan to continue using this service in the future - I plan to continue using this service in the future	.163	1.248	1.647	159	.102
Pair 17	I will strongly advocate for others to use this	.050	1.181	.536	159	.593

	Statement	Mean	Std. Dev.	t	df	Sig. (2-tailed)
	service. - I will strongly advocate for others to use this service.					
Pair 18	I trust this banking service - I trust this banking service	.044	1.305	.424	159	.672
Pair 19	I trust that possible problems will be resolved well - I trust that possible problems will be resolved well	.200	1.196	2.114	159	.036*
Pair 20	I trust this banking service less than other services - I trust this banking service less than other services	.0250	1.3870	.228	159	.820

The t-test for the analysis for online and mobile banking reported a significant difference in the attitudes of consumers towards online and mobile banking with pair 3 or PU3 ($M = .181, SD = 1.212$) $t(1) = 1.891, p > .10.$), pair 5 or PEOU 1 ($M = .188, SD = 1.299$) $t(1) = 1.826, p > .10.$), pair 6 or PEOU 2 ($M = .181, SD = 1.268$) $t(1) = 1.808, p > .10.$), pair 15 or BI ($M = .181, SD = 1.307$) $t(1) = 1.754, p > .10.$), pair 19 or PT2 ($M = .200, SD = 1.196$) $t(1) = 2.114, p > .10.$)

These results suggest that there is a difference, specifically in the scores for pair 3 (PU3), pair 5 (PEOU 1), pair 6 (PEOU 2), pair 15 (BI1), pair 19 (PT2) where the p values are less than 10 percent. As can be seen in the table above and revealed by the p values in bold. Our results suggest that respondents on the average differ in the attitude towards online and mobile banking in general.

4.5 Factor Analysis – Rotated Component Matrix^a

The notion of rotation is to shrink or decrease the amount of factors on which the variables have high loadings. Looking at *table 14* below of the rotated component matrix for online banking we can see that *PR1, PR2 and PT1, PT2, PT3*, are substantially loaded on Factor (Component) 2, While, *PU1, PEOU3, PU3, PU4*,

PEOU1, PEOU2, PU2, are loaded on Factor component 1. While, *PR3 and PR4* on factor 5 and *BI1 BI2 BI3* on factor component 3 *SN1, SN2 and SN3* on factor component 4, the factors can be used as variables for further analysis. It also goes to show the perspective in which the respondents viewed the questions. The output of the factor analysis for online banking had a twist, given that respondents viewed the questionnaire variables in different forms, *perceived usefulness (PU)* and *perceived ease of use (PEOU)* where viewed in the same light. While perceived risk variables where viewed by the respondents in two different forms as can be seen in the loading in the factor component 2 and 5. *Perceived risk (PR1, 2)* seemed to have been viewed by the respondents in the same light with *perceived trust*. While social norms and behavioural intention where viewed as separate entities under factors component 4 and 3 respectively.

While the rotated component matrix for mobile banking as shown by *table 15* seemed not to have any problem. Other than *perceived usefulness* and *perceived ease of use* that where viewed under the same perspective as shown under factor component 1. While *perceived trust, behavioural intention, social norm perceived risk* where viewed differently as shown under the factor component 2, 3, 4 and 5 respectively.

Table 5. Rotated Component Matrix^a for Online Banking Service (factor analysis)

	Component				
	1	2	3	4	5
PU1_Online Using this banking service saves time	.757				
PU2_Online I find this banking service useful to manage my finance	.618				
PU3_Online I find this banking service to be convenient	.654				
PU4_Online This banking service helps me to accomplish my banking activities more quickly	.776				
PEOU1_Online Using this banking service is easy and clear	.771				
PEOU2_Online Learning how to utilize this banking service is	.535				

easy					
PEOU3_Online It is the easiest channel to use compared to other electronic payment system	.686				
PR1_Online my financial information are secure when using this banking service		.692			
PR2_Online I enjoy privacy when using this banking service		.662			
PR3_Online There are possibilities that I would have problems while making transactions through this service					.878
PR4_Online There are high worries about bank's actions with errors occurring during transactions with this services					.843
SN1_Online Reference group influences my decision to use this service.				.787	
SN2_Online I agree with the opinion of my referents group to keep using this service				.735	
SN3_Online My close friends think that I should use these service				.739	
BI1_Online I expect to continue using this service in the future.			.741		
BI2_Online I plan to continue using this service in the future			.694		
BI3_Online I will strongly advocate for others to use this service.			.647		
PT1_Online I trust this banking service		.695			
PT2_Online I trust that possible problems will be resolved well		.520			
PT3_Online I trust this banking service less than other services		.752			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 6 iterations.

Table 6. Rotated Component Matrix^a for Mobile Banking Service (factor analysis)

	1	2	3	4	5
PU1 Using this banking service saves time	.549				
PU2 I find this banking service useful to manage my finance	.620				
PU3 I find this banking service to be convenient	.729				
PU4 This banking service helps me to accomplish my banking activities more quickly	.774				
PEOU1 Using this banking service is easy and clear	.704				
PEOU2 Learning how to utilize this banking service is easy	.575				
PEOU3 It is the easiest channel to use compared to other electronic payment system	.612				
PR1 my financial information are secure when using this banking service					.639

PR2 I enjoy privacy when using this banking service					.595
PR3 There are possibilities that I would have problems while making transactions through this service					.891
PR4 There are high worries about bank's actions with errors occurring during transactions with this services					.880
SN1 Reference group influences my decision to use this service.				.625	
SN2 I agree with the opinion of my referents group to keep using this service				.566	
SN3 My close friends think that I should use these service				.733	
BI1 I expect to continue using this service in the future.			.696		
BI2 I plan to continue using this service in the future			.829		
BI3 I will strongly advocate for others to use this service.			.656		
PT1 I trust this banking service		.772			
PT2 I trust that possible problems will be resolved well		.581			
PT3 I trust this banking service less than other services		.640			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

4.6 Regression Data Analysis - R Squared.

In trying to analyze and test our research model, a regression analysis was carried out, with our dependent variable being BI (behavioural intention). In the model summary; R Squared which in context of linear regression means the percentage of deviation that can be explained by this relationship. In other words, R squared draws to light a concrete number of how likely it is that we can forecast the results of whatever it is we are studying according to the plot we generate. It sufficiently reveals its credibility in

being able to define the model, for online banking at a level of 82.8 percent and mobile banking at a level of 76.6 percent.

4.7 Regression Analysis for Online Banking

In testing or analyzing the variables for the model for online banking service the significance level was set at 5 percent. With the aid of the SPSS it revealed that perceived usefulness, perceived trust and social norms were highly significant to intention to continue using online banking in the future. Rather perceived ease of use and perceived risk did not have an influence on the continued usage of the banking service in the future.

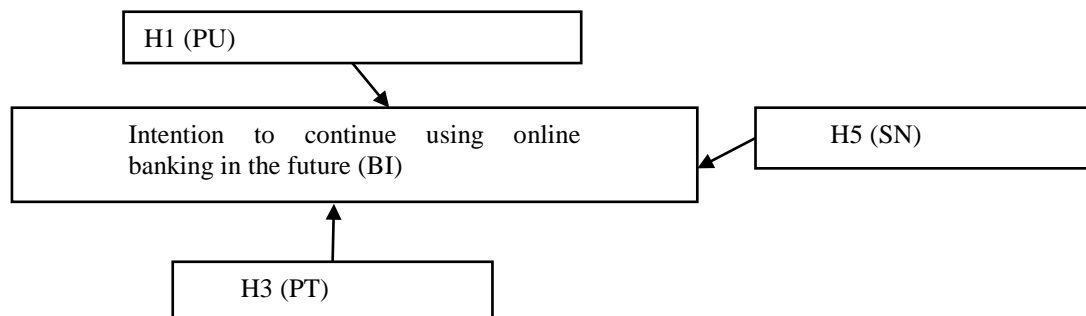


Figure 3. Dependent Variables for Online Banking

Table 7. Model Summary Online Banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Online Banking	,758 ^a	,574	,560	,59414

Predictors: (Constant), PT_ONLINE, SN_ONLINE, PU_Online, PR_ONLINE, PEOU_Online

The results indicate a correlation 0.758, as revealed and the Rsquare which indicates the level of variation in the model 0.574 tends to be relatively high.

Table 8. Coefficients^a Online Banking

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	,543	,240		2,262	,025
H1(PU)	,361	,082	,355	4,428	,000
H4(PEOU)	,111	,080	,113	1,385	,168*
H2(PR)	-,022	,071	-,020	-,307	,760*
H5(SN)	,230	,056	,253	4,123	,000
H3(PT)	,230	,063	,252	3,672	,000

a. Dependent Variable: BI_ONLINE

A linear regression was used to test the hypothesis; H1, H2, H3, H4, H5 for online banking. The linear regression analysis revealed that H3, H1 and H5 had a highly significant influence on the intention to continue using online banking in the future H1 ($\beta = .355, p = .000$), H5 ($\beta = .253, p = .000$) and H3 ($\beta = .252, p = .000$). While H2 ($\beta =$

-.020, $p = .760$), and H4 ($\beta = .113$, $p = .168$), were not significant, they had no influence on the intention to continue using online banking.

4.8 Regression analysis for Mobile Banking

In testing or analyzing the variables for the model for mobile banking service the significance level was also set at 5 percent. Also with the aid of the SPSS it revealed that perceived usefulness, perceived risk and social norm were also not necessary significant or influential to the dependent variable; being the continued usage of the banking service in the future.

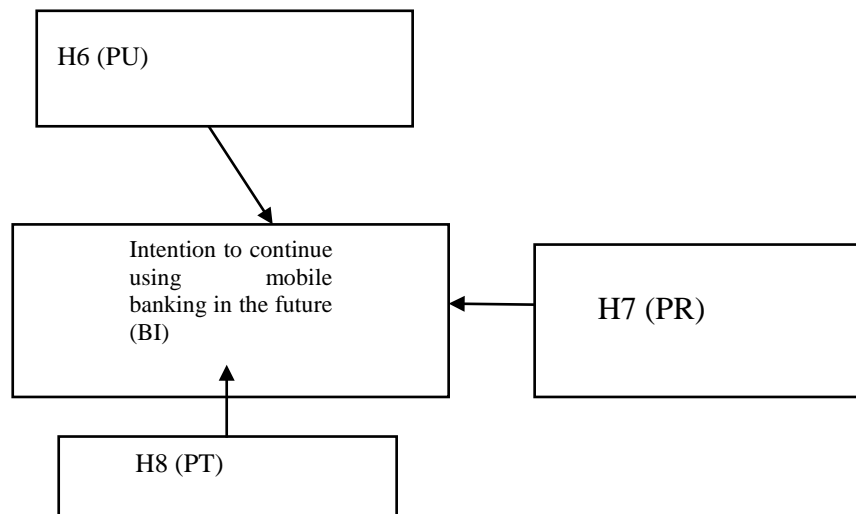


Figure 4. Dependent Variables for Mobile Banking

Table 9. Model Summary Mobile Banking

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Mobile Banking	,718 ^a	,515	,499	,64551

a. Predictors: (Constant), PT_MOBILE, PU_MOBILE, SN_MOBILE, PR_MOBILE, PEOU_MOBILE

The results mobile banking indicated a correlation of 0.718, and the Rsquare which indicated the level of variation in the model 0.515 also tends to be relatively high in explaining the model.

Table 10. Coefficientsa Mobile Banking

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	,173	,278		,623	,534
H6 (PU)	,357	,090	,278	3,967	,000
H9 (PEOU)	,151	,085	,090	1,787	,076
					*
H7 (PR)	,233	,076	,085	3,065	,003
H10 (SN)	,101	,069	,076	1,458	,147
					*
H8 (PT)	,156	,078	,069	2,002	,047

a. Dependent Variable: BI_MOBILE

Also same linear regression was used to test the hypothesis; H6, H7, H8, H9, H10 for mobile banking. The linear regression analysis revealed that H6, H7 and H8 had a highly significant influence on the intention to continue using mobile banking in the future H6 ($\beta = .173$, $p = .000$), H7 ($\beta = .233$, $p = .003$) and H8 ($\beta = .156$, $p = .047$). While H9 ($\beta = -.151$, $p = .076$), and H10 ($\beta = .101$, $p = .147$), were not significant, they had no influence on the intention to continue using online banking.

Table 11. Hypothesis Test Summary

Hypothesis	Remark
H1: Perceived Usefulness influences Intention to use Online Banking	Significant
H2: Perceived Risk influences Intention to use Online Banking	Not Significant
H3: Perceived Trust influences Intention to use Online Banking	Significant
H4: Perceived Ease of Use influences Intention to use Online Banking	Not Significant
H5: Social Norms influences Intention to use Online Banking	Significant
H6: Perceived usefulness influences Intention to use Mobile Banking	Significant
H7: Perceived Risk influences Intention to use Mobile Banking	Significant
H8: Perceived Trust influences Intention to use Mobile Banking	Significant
H9: Perceived Ease of Use influences Intention to use Mobile Banking	Not Significant
H10 Social Norms influences Intention to use Mobile Banking	Not Significant

Chapter 5

CONCLUSIONS AND RECOMMENDATION

5.1 Conclusion

The research has created a consciousness of the factors that likely determine customers attitude of online and M-Banking in Nigeria, with the help of the Technology Acceptance model, begotten from various behavioral intention theories, it has helped in bringing to lime light different influential factors that inhibits or increases the customers' aim to keep using online and M-Banking services in the future in Nigeria. By extending TAM in this research it goes to align itself in favour other authors, that are of the opinion that perceived usefulness and perceives ease of use are not enough to decide the customer's behavioral intention to use online and or M-Banking.

Perceived trust, perceived risk, social norms and behavioural intention as the dependent variable were carefully chosen as added factors to TAM for their persuasive intent or features on attitude of consumers where therein exist dilapidating levels of corruption and insecurity. Statistical analysis end result brought to light that not every factor that were employed to analyze customer attitude of online and mobile banking have influence on the behavioural intent to continue using online and M-Banking in the future. The end result crystallized the fact that customers find perceived trust and perceived usefulness to be strong motivating factors in the intent to continue using these services in both the online and mobile banking services, but come to differ when it

comes to social norms and perceived risk. In the case of online banking social norm is a motivating aspect towards the use of online banking as compared to that of mobile banking where perceived risk seems to be a better instrument forecaster for the use of mobile banking service. Perceived trust and perceived usefulness are factors for explaining customers' attitude of online and M-Banking service. Overall, Trustworthiness and Usefulness tend to weigh more on users of both online and mobile banking services, and with possible entrants into the system of the use of these banking services, providers of these services should take note, that trust and its usefulness tend to be an issue that arises from the use of these services. This has closely affected the consumer's behaviour intention towards the services. Banking service providers might want to employ a form of advertising that could be used to lay emphasis on security in the use of online and mobile banking to earn the trust of customers.

5.2 Recommendation for Future Research

On the other hand, I do recommend that; from this research, that further study be directed towards analyzing the difference in attitudes of those that use and those that do not use E-Banking.

A detailed analysis with a larger sample size would be beneficial to shed more light on the attitudes of consumers.

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APPENDIX

Appendix: Questionnaire for the Analysis

	The aim of this study is to analyze consumer attitudes towards online and mobile banking in Nigeria	
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Q1. Do you use the internet? Yes No

Q2. Do you have a Facebook account? Yes No

Q3. What form of banking do you prefer?

Online banking Mobile banking Branch banking (over the counter).

Please answer the following questions. No one will ever associate these responses with your name. Please circle or tick.

1 ☹	2	3 😐	4	5 😊
Strongly Disagree	Disagree	Indifferent	Agree	Strongly Agree

		Online banking					Mobile banking				
		☹		😊		😊	☹		😊		😊
PU1	Using this banking service saves time.	1	2	3	4	5	1	2	3	4	5
PU2	I find this banking service useful to manage my finance	1	2	3	4	5	1	2	3	4	5
PU3	I find this banking service to be convenient	1	2	3	4	5	1	2	3	4	5
PU4	This banking service helps me to accomplish my banking activities more quickly	1	2	3	4	5	1	2	3	4	5
PEOU 1	Using this banking service is easy and clear	1	2	3	4	5	1	2	3	4	5
PEOU 2	Learning how to utilize this banking service is easy	1	2	3	4	5	1	2	3	4	5
PEOU 3	It is the easiest channel to use compared to other electronic payment system	1	2	3	4	5	1	2	3	4	5
PR1	my financial information are secure when using this banking service	1	2	3	4	5	1	2	3	4	5
PR2	I enjoy privacy when using this banking service	1	2	3	4	5	1	2	3	4	5
PR3	There are possibilities that I would have problems while making transactions through this service	1	2	3	4	5	1	2	3	4	5
PR4	There are high worries about bank's actions with errors occurring during transactions with this services	1	2	3	4	5	1	2	3	4	5

SN1	Reference group influences my decision to use this service.	1	2	3	4	5	1	2	3	4	5
SN2	I agree with the opinion of my referents group to keep using this service	1	2	3	4	5	1	2	3	4	5
SN3	My close friends think that I should use these service	1	2	3	4	5	1	2	3	4	5
BI1	I expect to continue using this service in the future.	1	2	3	4	5	1	2	3	4	5
BI2	I plan to continue using this service in the future	1	2	3	4	5	1	2	3	4	5
BI3	I will strongly advocate for others to use this service.	1	2	3	4	5	1	2	3	4	5
PT1	I trust this banking service	1	2	3	4	5	1	2	3	4	5
PT2	I trust that possible problems will be resolved well	1	2	3	4	5	1	2	3	4	5
PT3	I trust this banking service less than other services	1	2	3	4	5	1	2	3	4	5

Demographic information

Your responses will only be used for aggregate survey analyses and we will treat them with the strictest confidentiality. Individual responses will not be given to anyone for any purpose. For each item, please provide answer that most closely describes you.

1. **GENDER** Male Female
2. **AGE** Under 18 18 – 30 31-40 41-50 51-60 61 and above
3. **CITY OF RESIDENT:**
4. **OCCUPATION:**
5. **MARITAL STATUS** Married Single Divorced OTHERS
6. **EDUCATION LEVEL** Primary School Secondary School High School
 Bachelors
 Masters Ph.D.
7. **MONTHLY PERSONAL INCOME LEVEL (Please Specify)**
 100NGN and less 100NGN – 200NGN 200NGN – 300NGN 300NGN–
400NGN
 400NGN – 600NGN 600NGN and more