



Journal of Internet Banking and Commerce

An open access Internet journal (<http://www.icommercecentral.com>)

Journal of Internet Banking and Commerce, December 2015, vol. 20, no. 3

User Adoption of Online Banking in Nigeria: A Qualitative Study

TARHINI A

**Department of Information Systems, Brunel University London,
United Kingdom, Tel: 0097433308394**

Email: ali.tarhini@hotmail.co.uk

MGBEMENA C

**Department of Information Systems, Brunel University London,
United Kingdom**

TRAB MSA

**Department of Information Systems, Brunel University London,
United Kingdom**

MASA'DEH R

**Management Information System Department, The University of
Jordan, Amman, Jordan**

Abstract

The emergence of the internet has created a great impact on our daily lives. In recent times, financial institutions worldwide have rapidly moved from branch-

based banking to online based service delivery changing the way services are rendered to customers. Despite the deployment of technology driven services in the banking sector, the adoption of Internet banking especially in developing countries such as Nigeria is still an innovation. This paper aims to explore the factors that may influence or hinder the acceptance of internet banking in Nigeria. An interpretive approach was employed to gain a deeper insight of the subject topic. The findings show that security is the main concerning factor that influences customers' decision to adopt online banking services. Culture and religion were also found to be influencing factors. A set of recommendations were provided on how user adoption of online banking can be increased amongst Nigerian customers. This paper concludes that the banks should better manage consumers' experiences to enhance the use of internet banking services by including a process of adjustment and learning over time, and not just focusing on the adoption process itself.

Keywords: Banking; Online banking; Internet banking; Developing countries; Qualitative research; Nigeria

© Tarhini A, 2015

INTRODUCTION

The rapid growth of internet technologies has had a tremendous impact on how banks operate their business and the way in which consumers conduct their banking activities [1]. Adopting online (i.e., internet) banking, customers have now the option to perform banking activities such as paying bills, checking account information and transferring funds remotely anytime [2-4]. As such, the increase in customer satisfaction about the quality of banking services has been accordingly noticed [4,5]. In addition, there are also numerous benefits for banks in adopting and incorporating use of internet banking such as cost-savings, increase service quality and increase their revenues [6,7].

Despite the aforementioned advantages, large groups of customers have shown reluctance to use online banking services [1,7-9]. The availability of internet infrastructures, ease of use, required skills, uncertainty and security are some concerns keeping the customers away from adopting online banking services [10-13]. Therefore, bank managers and policy makers have to come up with strategies to attract customers who are yet to use this service and to understand factors affecting customer retention management for existing and future users.

The adoption and use of the internet banking by consumers varies from one population group, one social setting and one cultural context to another [14,15]. Online banking is rapidly growing in developed economics such as US [3,16], UK [4,17]; Canada [18]; Austria [19] and France [20]. However, online banking is still

relatively new phenomenon in developing countries such as Nigeria. In the Nigerian context, the online banking is still an innovation and very far behind compared to counterparties in other countries despite the huge investment in technology [21] due to lack of awareness about the products and inadequate legal framework. Several studies have been conducted to identify the factors affecting customers' adoption of online banking [22-24]. Most of these studies were based on surveys and positivist approaches were incapable of uncovering deeper issues and failed to give an in-depth understanding of the subject topic [25].

The need for further-in-depth research to highlight the adoption issues and the relationships between them is thus a necessity. Moreover, other factors that may affect the online banking adoption such as the level of consumer support [26] and the attention to the consumer experience [27] should be accompanied. The study should also take into account online banking adoption across a wide range of demographics [28] rather than focusing on the thought segment such as the youths and the upper income demographic [8]. This paper aims to have a deep understanding about the critical elements that determine consumer decisions to adopt online banking in Nigeria and to provide relevant ideas to banks on how they can retain customers' usage of online banking. An interpretive approach was adopted in carrying out this research because of its ability to identify issues that cannot be discovered using only a traditional/positivist approach.

The structure of the paper is as follows. Section 2 reviews the relating literature. Section 3 presents the research methodology used in this study. Data analysis and result discussion are presented Section 4 and 5 respectively. Section 6 concludes the paper.

LITERATURE REVIEW

Information technology adoption

The continuous development of new technologies intends to shape our day-to-day life and improve our future. The impact which might be achieved by those technologies is totally related to the degree which society accepts and adopts such technologies. Several studies have been conducted on information technology usage and adoption [29-33]. Rogers [34] identifies five steps users must go through before they are ready to adopt a new technology: Knowledge, persuasion, decision, implementation and confirmation. First, Knowledge Stage measures socio-economic characteristics, personality variables and communication behaviour with respect to innovativeness (i.e., the ability of an early adoption). Early adopters usually have more formal education than later adopters and are more likely to possess the socioeconomic characteristics. Second, Persuasion Stage represents the potential adopter's behaviour towards the innovation. Anticipating the satisfaction or risk of an adoption, the potential

user develops positive or negative attitudes to the innovation. Third, Decision Stage occurs when an individual gets involved in activities leading to adoption or rejection of the innovation. Fourth, Implementation stage starts when the decision is finally made but the behavioural change commences. Last, Confirmation stage occurs when the adopters keep evaluating the results of their decision. If the level of satisfaction is well enough, the use of that innovation will continue. It is also possible that the rejection occurs after adoption though. In the latter case, the reverse of a previous decision is called 'discontinuance'.

The Evolution of online banking

Technologies have spread to include all shapes of business including the financial institutions. For instance, technologies can play a vital role in the banking systems by establishing a direct channel connecting bank' customers with their services [35]. Consequently, banks deploy various forms of Self-Service Technologies (SST) to increase profit and gain a competitive advantage in the industry. The Automated Teller Machine (ATM) was the first form of SST to be introduced in banking and it paved the banks aim to provide customers with their banking needs in a convenient way while reducing the cost [27,36-38]. Furthermore, phone banking was next in this evolution where clients use telecommunication networks to interact with their banks and perform their financial transactions by means of phone calls [36,39- 42]. By the mid-1990s, banks have begun to exploit the potential of the internet technology leading to the introduction of online banking. This new banking channel allows customers to remotely perform their financial activities over the World Wide Web (www) in an easy and relaxing way [43,44].

Risk of online banking

The introduction of online banking has led to pay a close attention to risks that might be encountered. As a result, customers often perceive online banking services as unreliable and consider the traditional banking services to be the most comfortable and trustworthy [45,46].

Lee [1] classified four types of online banking risks that might be encountered: The security/privacy risk, financial risk, social risk and time/convenience risk. First, the privacy risk is the possibility of losing, destroying, using or generating confidential data as a result of fraud or hackers attacks breaching the security of online banking users. Customers often face the privacy risk in the form of phishing, pharming, virus attacks, hacking, unauthorized access and fraudulent transactions. For instance, phishing attack usually takes the form of an email from a customer's bank and requests sensitive information (e.g., user names, passwords and credit card details) by masquerading as a trusted source or containing a link to a website that looks almost identical to the authentic one where users will enter their details [47,48]. These details are then captured by

fraudsters and used to make unauthorized transactions on an account. Rachwald [49] indicates that 60% of banks suffer from phishing attacks. Moreover, the pharming attack entails hackers compromising a website at the level of the Internet Service Provider (ISP). When users enter the online banking URL, pharming hijacks the DNS tables to redirect the user to a fraudulent similar site to capture their details for fraudulent activities. This method is still dangerous even if users have all of their security in place on their machine. Generally, the best way to avoid falling victim to these kinds of attacks is to be aware of them and safeguard personal information. Users should be advised to look out for the padlock at the bottom of the screen as this indicates that the website is encrypted and secure. If this padlock does not appear, the user should log out immediately and not enter any of their details.

Second, the financial risk is the possibility of monetary loss as a result of error in a transaction or a misuse of banking accounts. Many customers are scared of losing money while transferring funds or performing financial transactions over the Internet [49]. Currently, online banking services provide less assurance than traditional banking services do [1]. Consequently, customers face difficulties when they seek compensation for any transaction errors that have occurred.

Third, the social risk is the potential loss of status in one's social group or disapproval by one's neighbors as a result of using online banking technology. Not all customers are willing to use this new channel and many are reluctant to change from traditional services because they do not want to go against their religious or culture beliefs [50-52]. This could be attributed to low literacy level, lack of awareness about the service usefulness or lack of knowledge about information technology in general. A survey conducted in Finland by Kuisma et al. [13] showed that respondents in general preferred the traditional banking services just because of the routine use of ATMs, absence of an official receipt and many more.

Last, the time risk is defined as the inconvenience and loss of time incurred as a consequence of delays in receiving payments or navigation difficulties such as finding suitable hyperlinks and services. Forsythe and Shi [53] found that two factors leading to time risks with online experiences: A disorganized website and the slowness of downloading some web pages. The length of time involved in waiting for websites, waiting to update an account or learning new functionalities could also be types of time risk [1,54].

While threats are real and pose a serious risk to users of online banking, it cannot be denied that online banking has benefits. As long as users are aware of possible problems that may compromise their accounts, and take security seriously, these threats can be avoided and users can delight in the convenience of online banking without falling victim to fraud.

Benefits of online banking

Despite all the risks might be encountered, online banking offers new value to customers because of the emergence of the internet. Customers now are able to manage their accounts remotely without any time or geographical boundary regardless of the banks opening hours or holidays [3,55]. Online banking can also be very cost effective as charges for online services are often lower than for those of the ordinary accounts. The only cost associated with online banking is the cost of the time spent online (i.e., charged by the internet service provider). Some banks even offer free internet service to their customers as an encouragement of opening an account with them [4]. Campbell and Frei [16] highlighted the quality effect of the internet infrastructure on the customer's willingness to use the online banking services. For instance, the speed of completing transactions online is dependent on the internet connection speed [56]. Furthermore, special advantages can only be obtained by having online banking account. Many online banks offer as an example offset or current account mortgages. These mortgages permit trade-off between the balance in a saving or current account against personal borrowings, which can result in the interest on a mortgage being reduced. To summarize, the benefits of online banking are numerous and highly significant most importantly because of its perceived usefulness, convenience and time saving [8,57].

Customer adoption of online banking

Despite all the benefits and high investments in online banking, its adoption tends to be negligible worldwide [23]. Several research studies have investigated the personal factors influencing online banking adoption. To begin with, lack of trust can be the strongest reason keeping users away from processing transactions online [19,46,58]. The perceived usefulness is another factor affecting customers' decision to deal with online banking services [39,59]. Furthermore, Alalwan et al. [42] found that customers may not use online banking due to the lack of awareness of its benefits; whereas Yu [60] stressed that personal gain has the highest impact on customers to choose online banking services. Convenience has also been identified by a number of studies to be a principal adoption factor in terms of 24/7 availability and time saving [4,11,61].

Other set of non-personal factors have even a greater influence on online banking adoption process. The nonexistence of hightech infrastructures and government policies can discourage lots of customers to use online banking and build a kind of distrust that all services offered are stable. That is supported by studies conducted in Ghana [62] and Nigeria [24,63,64]. Moreover, the availability and stability of online banking services are not enough if there is a lack of deep understanding of information technologies and how can be used regardless the age, culture and educational level [64].

Online banking in Nigeria

Nigeria is a developing country which is rich of several mineral deposits, agricultural resources, and healthy rivers full of aquatic animals [65]. However, the country has a poor economy where lots of people live under poverty line due to several reasons such as poor management [66]. The poor economy has badly affected community basic services such as schools, electricity, banks and the internet [67,68].

Moving in the right direction, Nigeria has heavily invested in the development of ICT. The internet penetration rate increased from 3.5% in 2005 to 38% in 2014, while the GDP per capita increased from 804 USD to 3005 USD for the same duration. Nevertheless, ICT was not a part of the most schools' and universities' syllabus. The cost of obtaining such technologies and maintaining them are also beyond the majority due to the low income rate [17]. As a result, the adoption of new technologies was not that easy journey.

The revolution in the Nigerian banking industry started in 2003, with the introduction of guideline of electronic banking by the Central Bank of Nigeria (CBN) [23]. This was followed by the reformation of Nigerian banks leaving 25 banks out of a total of 89 that previously existed. The 25 recapitalized banks have engaged in the use of ICT for effective and efficient delivery of banking services [28,69]. In the past few years, financial activities in Nigeria have actively based on the development of ICT [70]. Customers' appetite for efficient services and the high competition has driven financial institutions to radically transform their business by adopting electronic banking. Financial institutions have started to improve their delivery channels with websites, allowing customers to open accounts, apply for loans, check their balances and make and receive payments via the Internet. The development of the Internet has provided customers with the means to carry out virtual business activities [23].

On the other hand, despite the vast transformations that have taken place in the Nigerian banking industry, customers still prefer carrying cash and avoid to fully adopting online banking services [71]. Although online banking has gained prominence in Nigeria, customers' attitudes and confidence in the system need to be changed [23]. Lallmahamood [72] stated that more than half of the people who have tried using online banking services do not become active users. Findings have also indicated that inadequate telecommunications infrastructure, lack of people literacy, lack of security, unreliable electricity supply, lack of trust and limited privacy are among the barriers to online banking acceptance in Nigeria [23,64].

To summarize, the benefits of online banking is very significant but the risks attached to it somewhat overshadow the benefits especially in developing countries such as Nigeria. However, increasing consumers' awareness of the

risks and securing the stability of the service can be taking to mitigate the issue of risk.

RESEARCH METHODOLOGY

This research adopts the interpretive approach with the use of semistructured interviews to understand the factors that may influence or hinder the adoption and acceptance of internet banking in Nigeria.

Semi-structured interviews

Qualitative research has been argued to be able to provide complex textual descriptions of how people experience a given research issue [73]. The use of interviews as such gives the interviewee the chance to express his/her feeling about the question being asked and give relevant information that would not be ordinarily obtained from using questionnaires. Semi-structured interviewing (i.e., one way of conducting interviews) entails the interviewer a list of questions on topics referred to as an interview guide [74]. The interviewee also has the privilege to respond freely. Questions may not follow the same pattern as in the interview guide.

The semi-structured interview method was employed in this study because one of the research's objectives was to interview users and non-users of online banking to find out why they have accepted or rejected the technology. Thus, a series of questions were posed to the interviewees to understand the reason behind their actions.

Research design, data collection and analysis methods

The primary source of data for this study was interviews conducted in Lagos, Nigeria. The respondents were selected to represent users and non-users of online banking. They represented different knowledge levels, age, academic background and familiarity with online banking services. The questions were asked in such a way that interviewees would be free to express themselves. All interviews were conducted after approvals have been sought from the respondents. Ethical issues taken into consideration include privacy, anonymity, confidentiality, voluntary participation and risk of harm.

A pilot study was conducted with four participants. During the pretesting, each question was discussed and analyzed in order to check the readability and comprehensibility. The first set of questions incurred several problems when pretested. There were difficulties with understanding certain questions so they had to be rephrased and defined in a way that participants will understand without having to go through them over and over again.

The interviews were conducted with 30 people. Overall, more nonusers turned out for the interview than regular users. The interviews were conducted among business owners, bank managers, traders, students and other individuals. The sample was not necessarily representative of the Nigerian population as a whole as it ignored the large rural population. However, the target market for online banking is likely to be urban region so we have a sample which is potentially representative of the target population. Participants were involved in conducting this research as their views are needed to get a proper understanding of the research topic.

Analyzing qualitative data can be more challenging when compared to quantitative data. Several approaches have been proposed for analyzing qualitative data [75,76]. This study adopts a content analysis approach as described by Taylor-Powell and Renner [77]: Get to know your data, focus the analysis, categorize information, and identify patterns between categories and interpretation.

DATA ANALYSIS

Demographic statistics

The interviews were conducted with 30 people. Overall, more nonusers turned out for the interview than regular users. The interview was conducted among business owners, bank managers, traders, students and other individuals.

RESULTS

Several factors have been identified as the factors influencing the adoption of online banking in Nigeria. Some of these factors are obviously similar and can be considered to have equal implications while others are obscure, often dependent on another. However, after a review of the literature, some of these factors identified as the main themes for this study were grouped into: 1) functionality consists of awareness, ease of use and accessibility, 2) risks consist of trust, security and privacy and 3) context (convenience). Participants were offered brief definitions for some terms to ensure full understanding of questions. Participants often went off topic, which became time consuming. However, measures were taken to ensure that their attention was drawn back to the question asked.

Functionality

a. Awareness: For a system to function properly there is a great need for its awareness. Also, it has to be available for use and it should be easy navigating through.

'I neither see advertisements of the benefits of online banking and instructions on how to use it on television nor hear it on radio....'

This was a comment of a non-user highlighting the lack of awareness. Some other non-users mentioned that they never heard or thought of online banking previously nor seen the advertisements. While others mentioned that they did not use internet banking services because they had not attempted it, believing that it is too complex and has little or no importance. Many participants argued that banks should put more effort in advertising to let people know its benefits. However, some users mentioned that despite their awareness, they did not show an interest in using it because of the suspicion of its security.

In summary, gaining customer awareness is highly imperative for a high adoption level of online banking in Nigeria as many participants are not aware of its benefits. Although some customers have actually heard about it, they have not paid any attention because of the lack of awareness of its benefits.

b. Accessibility: The functionality of a system requires that consumers are not only aware of it but also having an access to it. Access to online banking was found to be a great issue as it is based on the existence of suitable infrastructure. A participant commented with depression: 'How can I perform online banking when I do not have access to the internet at home and it takes ages for a page to come up at work? Again, I am usually busy during my work. Does it mean that I will leave my work and get a query because I want to make a transaction online? Even if I do this, how long will I keep doing it? I am very interested in online banking because I have heard a lot about it but getting access to the internet is the problem'.

This was a comment from a non-user stating that internet accessibility is a key influence on the adoption of online banking. One issue is that some participants accessing the internet have a limited internet connection plan to save some cost. Another issue found is the restrictive workplace internet practices and policy. Several nonusers were relaying stories of limited hours at work where they can access the internet. As a result, this time frame was used to perform their tasks rather doing online banking. The importance of the internet accessibility at work with open time frame has influenced online banking users to adopt online banking.

Furthermore, constant electricity is still a dream yet to be achieved in Nigeria. Participants also complained that the lack of electricity influences their decision not to use online banking services. Several non-users highlighted the issue of power supply as a setback for them to adopt online banking. This study noticed that most users of online banking perform online banking transactions at work as most firms run their generators if they are out of power supply.

c. Ease of use: 'The internet is quiet familiar to me because I have been using it for a very long time so online banking is not much of a task for me'.

Most users expressed confidence in their ability to use the internet. They also mentioned that navigating through the online banking site is not a problem provided the pre-requisites for use are available. However, non-users nominated lack of familiarity with the system as the main reason for their non-adoption.

Risks

Participants often considered internet-based risks when deciding whether or not to adopt online banking. However, the findings noticed that Nigerian online banking customers are yet to adjust to the presence of internet based risks and are not yet prepared to avoid these risks. This study classified risks into three sub-categories: Trust, privacy and security.

a. Trust: A participant commented: 'I do not trust the bank with my details, I cannot bank online.... As a matter of fact, I do not even bank at all'.

Due to the lack of trust, people in some parts of Nigeria often prefer to keep their money at home or in a storage box. Money is also alternatively kept with someone who is trusted; the low literacy level may be a reason.

Another participant commented: 'I do not even trust the bank staff enough with my details, they could be fraudulent...I would rather go to the bank whenever I need to do a transaction so I can always have a proof for every transaction done'.

This comment shows how trust influences the participant's decision to adopt online banking. Participants often emphasized on trust when answering the interview questions as they believe that nobody should be trusted especially when it involves sensitive information including money.

b. Privacy: This study found that users are less concerned about their privacy with respect to online banking.

'Well, I believe my privacy is at risk because my details might be used by banks or other parties who might want to market new services to me but its ok I am in it and will stick to it because I am happy with the benefits it gives me'.

Users were aware of privacy issues including whether their personal information would be used by non-authorized parties to do what they did not authorize. Most users highlighted that privacy is not an important factor in making a decision to adopt online banking.

c. Security: Security was found to be a major influencing factor on customers' decision to bank on the internet: 'Security is a known challenge for online

banking all over the world. Although new and better measures are always taken to ensure that online transactions and customer details can be as safe as possible, [public] education still seems paramount as endusers are often the weakest link'.

Most participants emphasized on security as the major reason why they would not adopt online banking. They do not believe that money is safe online because of the past events of online fraud. Participants often stressed on the issue of credit card scams, the internet fraud and how several people they know have been affected.

Exhibiting fear, another participant commented: 'I do not even use ATM cards let alone online banking. I go to the bank whenever I want to perform a transaction. I don't trust those things. I cannot afford to allow some young greedy computer literate steal all my money'.

This non-user's comment illustrates how the issue of security has prevented him from adopting online banking and even ATMs which most participants highlighted to be their fastest way of making withdrawals and topping up their mobile phones. Most non-users highlighted that the easiest way to check your account history without going to the bank is with the use of ATMs as ATMs are readily available to users. However, they also highlighted that the use of ATMs is not safe as people often lose their cards to the machine when they make a transaction and their money is stolen through this means.

Participants believe that since banks find it difficult to do a reversal when customers are present in the bank complaining bitterly, it is impossible for them to manage a problem like this when it happens online and the customer is not present. Banks in Nigeria are prone to having issues with payment making because there is inadequate power supply and internet accessibility. Thus, transactions might freeze thereby making a payment to be made twice and causing issues for both the sender and the receiver.

Context

Convenience was found as another reason why consumers adopt online banking. Participants described convenience in terms of lifestyle, workplace usage and waiting time.

A user commented: 'I prefer using online banking because I do not have to leave the comfort of my seat to go to the bank. I can do whatever I want to do on my seat in front of my computer'.

Most users emphasized on the convenience of online banking saving lots of waiting time at bank branches although some users complained about site

slowness. However, non-users highlighted their satisfaction with traditional method of banking and they do not see any reason for change. Additionally, this study found that customers perceived phone banking more convenient. The emergence of smart phones has made people especially youths very attached to their phones by which they could access their bank account and make transactions anytime.

In summary, most participants considered security as having a huge impact in the adoption of online banking in Nigeria. Non-users kept hammering on the fact that the government, the people and the whole system is corrupted.

Additional themes

Some other themes were also found out in the data collection process.

a. Culture: As mentioned before, some Nigerian people do not save money in the bank but they save money with someone who they know and trust. This method of saving money has been going on for decades and most people are not willing to change.

A participant who just relocated to Lagos commented: 'I do not use the bank at all let alone online banking. I do not even know what it is. My parents did not use the bank when they were alive and my friends do not use the bank as well so I know little or nothing about it. If I get to know some things about it and if I see that both banking and online banking will be beneficial to me then I'll consider using it'.

This was the comment of a non-user which shows that if he gets to know about the benefits that the bank could bring, he would consider using online banking.

b. Relative advantage: The advantage of using online banking was also found to be an influencing factor in this study. A participant commented: 'The main reason why I do not use online banking is that I do not know the benefits it has to offer me'.

Participant perceptions of relative advantage have clearly influenced choices of banking method, as illustrated by the above comment. The study found that while non-users were unaware of many of the relative advantages of online banking, users cited these advantages such as the ability to print receipts (unavailable in phone banking) and check their account details online.

c. Support and knowledge: 'Before I started online banking, I phoned the bank and they told me how to go about it and other basic things I needed to know so I proceeded'.

This comment highlights how responsive, personalized consumer support combined with access to knowledge played a role in influencing a participant's decision to adopt online banking. However, some participants complained about insufficient access to sources of knowledge. Most participants believed that this knowledge should be made available through immediate forms of interaction with banking personnel such as face to face, online chat or telephone. Participants complained that many bank personnel knew very little about online banking and how it works. In particular, personnel in branches did not appear to have this sufficient understanding and this was taken as a discouraging sign of poor levels of consumer service and support. Moreover, non-users' impatience about obtaining immediate assistance, together with their lack of confidence in respect of locating the information they needed quickly from documentation or online databases, influenced their decision on adoption.

d. Literacy level: Some non-users blamed their inability to use the internet on their low literacy level. A participant commented: 'Well, I do not know a lot about online banking, my kids try to tell me about it but I never pay attention to things that are difficult to use for example, the internet. I feel it is too complex. It is meant for people who are educated...'.

This statement illustrates how a non-user perceives online banking as difficult to operate. Some users also mentioned that they thought online banking was complex initially but after spending some time navigating through it, they realized that it is not as complex as they thought it was. Banks often send e-mails to customers to advertise their new products and services (e.g., online banking) and give directions on how to use these services. This initiative will draw customers' attention to how easy online banking is.

Not only complexity of the online banking site affects customers' adoption but also the language affects as well. For example, when mobile phones were introduced in Nigeria, the customer service operated in English alone but after a while the three major languages in Nigeria (i.e., Igbo, Yoruba and Hausa) were included to enhance the adoption process.

Additionally, religion was also revealed as a factor that influences consumer decision to bank online. Some participants believe that if money is kept in the bank, their wealth will keep depreciating and poverty will befall them and their generations to come.

DISCUSSION

The key findings of this study are presented in Table 1. This study found that there is a need for extensive and deep levels of consumer support from banks, especially in terms of immediate availability of support oriented knowledge provided by bank personnel using interactive channels. Such support should be

obtainable from all banking personnel encountered. It is simply unacceptable nowadays for a bank employee to know little or nothing about online banking.

Table 1: Online Banking- Key recommendation for banks.

Consumer issue	Recommendation
Inadequate knowledge and support	<ul style="list-style-type: none"> • Train bank staff in online banking. • Develop new consumer support solutions. • Develop innovative knowledge management strategies.
Risks of privacy, security and trust	<ul style="list-style-type: none"> • Buy customer’s trust by implementing a better application that enhances security and privacy. • Assist customers in the development of secure online banking practices and risk management procedures.
Difficulty in the initial set up procedure	<ul style="list-style-type: none"> • Introduce an easier set up procedure and provide set up support.
Difficult to use	<ul style="list-style-type: none"> • Provide an easy navigable website.
Preference of phone banking	<ul style="list-style-type: none"> • Offer training in online banking. • Market relative advantages of online banking.
Low self-esteem in the use of internet	<ul style="list-style-type: none"> • Offer free internet training • Work with the government to raise the internet literacy of the population
Lack of accessibility- No internet access	<ul style="list-style-type: none"> • Establish facilities such as dedicated online banking kiosks in banks and public

	places
Lack of awareness of online banking and its benefits	<ul style="list-style-type: none"> • Draw consumer attention to internet services through better marketing. • Inform consumers about features, advantages and benefits of online banking. • Relieve consumer concerns about technology and support.
Resistance to banking because of religious beliefs	<ul style="list-style-type: none"> • Educate people on banking i.e. purpose of banking, its benefits and so on.

Some people are not confident about their ability to use the internet. Banks can consider offering internet training for people with low internet self-efficacy. In addition, some banking customers may still be unaware of the benefits, existence, relative advantages and the features of online banking. The issue of awareness demands a great concern and it is advised that banks should emphasize on the benefits of making their consumers aware of online banking services and provide the knowledge needed to attract these markets. Marketing campaigns, attractive dedicated literature and awareness sessions may prove valuable for this purpose. Furthermore, phone banking was found to be the main method used by people who might have attempted online banking. Phone bankers believed that their banking needs were currently met. However, there may be potential market segment within current phone bankers who also perceive internet as easy to use but are unaware of the features, relative advantages and benefits. Banks should provide improved knowledge in this respect to this potential market segment.

The key findings of this study are that security, accessibility and convenience have the highest influence on customer decision to adopt online banking in Nigeria. The majority of non-users highlighted that security is the main reason for not adopting online banking while others mentioned the accessibility to be the main reason. On the contrary, users highlighted that convenience especially in terms of time saving and 24/7 access.

This study also found that customers have lost their trust in the online banking security system due to the constantly reported fraudulent acts occurring mostly online. For an effective online banking, banks need to win customers trust by improving bank information security. Moreover, customers often complained about inadequate power supply and little or no internet access. The issue of

power has been on ground for a very long time even before the existence of the internet in Nigeria. In this regard, it is advised that the Nigerian government should help in eliminating the mentioned above challenges as it disrupts the progress of their business. Furthermore, Nigerian government should encourage its citizens to be computer literate in this era of globalization that is affecting all ramifications of its citizen's career and life in general.

Another set of influencing factors keeping non-users away from adopting online banking were reported in this study: perceptions that their current banking method was convenient, lack of awareness of the relative advantages, lack of proficiency in the technology, low levels of accessibility, cultural, religious, security, privacy issues, and distrust of the internet banking channel. These issues have been discussed above.

Conclusion

The study findings were reported from a series of interviews that explored the factors influencing Nigerian banking consumers' adoption of online banking. Thirty interviews were conducted indicating a range of factors affecting online banking in Nigeria. On a practical level, the recommendations provided by this study may be useful to Nigerian banks and perhaps other countries' banks that are seeking ways to attract consumers to their online banking offerings. It was also observed that security is one of the critical factors hindering the adoption process in Nigeria as it was cited by many participants. However, some participants were aware of this issue but they still use online banking services because of its convenience. Banks are also trying as much as possible to win customers trust in terms of security by coming up with innovations such as giving customers the privilege to print their receipt after every transaction and notifying them through e-mail about the existence of such services. This study suggests that organizations will better manage consumer attitudes to new internet service applications if they realize that such experiences involve a process of adjustment and learning over time, and not merely the adoption of a new technology.

As with any research, our study has some potential limitations that need to be identified and discussed. First, our sample frame is relatively small which is considered one of the major drawbacks of using qualitative approach [74]. Our findings would have been strengthened if it were supported by using triangulation method (both survey and interviews) in an effort to produce more reliable data. Therefore, generalizability of the findings should be treated with caution. Second, the issues of culture and religion in Nigeria would be very beneficial to look into as this affects the growth of the bank and information systems in general.

REFERENCES

1. Lee MC (2009) Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications* 8: 130-141.
2. Abu-Shanab E, Pearson J(2007) Internet banking in Jordan: The unified theory of acceptance and use of technology (UTAUT) perspective. *Journal of Systems and information Technology* 9: 78-97.
3. Xue M, Hitt LM, Chen PY (2011) Determinants and outcomes of internet banking adoption. *Management Science* 57: 291-307.
4. Yousafzai SY (2012) A literature review of theoretical models of Internet banking adoption at the individual level. *Journal of Financial Services Marketing* 17: 215-226.
5. Alalwan AA, Dwivedi Y, Williams M (2014) Examining Factors Affecting Customer Intention And Adoption Of Internet Banking In Jordan. *UK Academy for Information Systems Conference Proceedings, Bournemouth, United Kingdom.*
6. Chandio F, Irani Z, Abbasi MS, Nizamani HA (2013) Acceptance of Online Banking Information Systems: An Empirical Case in a Developing Economy. *Behaviour and Information Technology* 32: 668-680.
7. Abu-Shanab E, Pearson J (2009) Internet banking in Jordan: an Arabic instrument validation process. *Int Arab J InfTechnol* 6: 235-244.
8. Nasri W (2011) Factors influencing the adoption of internet banking in Tunisia. *International Journal of Business and Management* 6: 143-160.
9. Tarhini A, El-Masri M, Ali M, Serrano A (2016) Extending the UTAUT to understand the Acceptance and Use of Internet Banking among Lebanese Customers: A Structural Equation Modeling Approach. *Information Technology and People.*
10. Safeena R, Date H, Kammani A (2011) Internet Banking Adoption in an Emerging Economy: Indian Consumer's Perspective. *Int Arab J e-Technol* 2: 56-64.
11. Yousafzai S, Yani-de-Soriano M (2012) Understanding customer-specific factors underpinning internet banking adoption. *International Journal of Bank Marketing* 30: 60-81.
12. Gorbacheva E, Niehaves B, Plattfaut R, Becker J (2011) Acceptance and use of internet banking: a digital divide perspective. *ECIS Proceeding.*

13. Kuisma T, Laukkanen T, Hiltunen M (2007) Mapping the reasons for resistance to Internet banking: A means-end approach. *International Journal of Information Management* 27: 75-85.
14. Yi MY, Jackson JD, Park JS, Probst JC (2006) Understanding information technology acceptance by individual professionals: Toward an integrative view. *Information and Management* 43: 350-363.
15. Venkatesh V, Thong J, Xu X (2012) Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS quarterly* 36: 157-178.
16. Campbell D, Frei F (2010) Cost structure, customer profitability, and retention implications of self-service distribution channels: Evidence from customer behaviour in an online banking channel. *Management Science* 56: 4-24.
17. Durkin M (2010) In search of the internet-banking customer: exploring the use of decision styles. *International Journal of Bank Marketing* 22: 484-503.
18. Mangin J, Bourgault N, Guerrero MM, Egea J (2011) Modelling perceived usefulness on adopting on line banking through the tam model in a Canadian banking environment. *Journal of Internet Banking and Commerce* 16: 1-23.
19. Grabner-Kräuter S, Faullant R (2008) Consumer acceptance of internet banking: the influence of internet trust. *International Journal of Bank Marketing* 26: 483-504.
20. Sanchez CRS, Clermont GE, Gallie JB (2010) Adoption of Internet banking: evidence from France. *IJMMR* 3: 107-117.
21. Olawepo GT (2013) An empirical investigation into factors influencing the adoption of Internet Banking among undergraduate students in Nigeria. PhD thesis, Ajayi Crowther University.
22. Oghenerukeybe EA (2009) Customers Perception of Security Indicators in Online Banking Sites in Nigeria. *Journal of Internet Banking and Commerce* 14: 1-15.
23. Oni AA, Ayo CK (2010) An empirical investigation of the level of users' acceptance of e-banking in Nigeria. *Journal of Internet Banking and Commerce* 15: 1-13.
24. Awara NF, Anyadighibe JA (2014) Factors Influencing Banks' Implementation and Consumers' Acceptance of E-Banking of Selected Commercial Banks in

Calabar, Cross River State, Nigeria. *International Journal of Managerial Studies and Research* 2: 1-13.

25. Corbin J, Strauss A (2014) *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage Publications.
26. Mohammadi H (2015) A study of mobile banking loyalty in Iran. *Computers in Human Behavior* 44: 35-47.
27. Martins C, Oliveira T, Popovič A (2014) Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management* 34: 1-13.
28. Akanbi PA, Ayodele TD, Adedipe OA (2014) An Investigation into Some Factors Influencing the Intention to Use Internet Banking among Undergraduates in Nigeria. *Research Journal of Finance and Accounting* 5: 1-9.
29. Abbasi MS, Tarhini A, Elyas T, Shah F (2015) Impact of individualism and collectivism over the individual's technology acceptance behaviour: A multi-group analysis between Pakistan and Turkey. *Journal of Enterprise Information Management* 28: 747-768.
30. Alenezi H, Tarhini A, Sharma SK (2015) Development of a Quantitative Model to Investigate the Strategic Relationship between Information Quality and e-Government Benefits. *Transforming Government: People, Process and Policy* 9: 324-351.
31. El-Masri M, Orozco J, Tarhini A, Tarhini T (2015) The Impact of IS-Business Alignment Practices on Organizational Choice of IS-Business Alignment Strategies. *The 19th Pacific Asia Conference on Information Systems (PACIS 2015)*, Singapore.
32. Sharma SK, Govindaluri SM, Al Balushi SM (2015) Predicting determinants of Internet banking adoption: A two-staged regression-neural network approach. *Management Research Review* 38: 750-766.
33. Tarhini A, Hone K, Liu X (2014) Measuring the moderating effect of Gender and Age on e-learning Acceptance in England: A structural equation modeling approach for an extended Technology Acceptance Model. *Journal of Educational Computing Research* 51: 163-184.
34. Rogers EM (2010) *Diffusion of Innovations*. Free Press, New York.

35. Alsajjan B, Dennis C (2010) Internet banking acceptance model: Cross-market examination. *Journal of Business Research* 63: 957-963.
36. Calisir F, Gumussoy CA (2008) Internet banking versus other banking channels: Young consumers' view. *International Journal of Information Management* 28: 215-221.
37. Dash M, Tech M (2014) Determinants of Customers' Adoption of Mobile Banking: An Empirical Study by Integrating Diffusion of Innovation with Attitude. *Journal of Internet Banking and Commerce* 19: 1-21.
38. Yadav R, Sharma SK, Tarhini A (2016) A multi-analytical approach to understand and predict the mobile commerce adoption. *Journal of Enterprise and Information Management*.
39. Abu-Shanab E, Pearson JM, Setterstrom AJ (2010) Internet Banking and Customers' Acceptance in Jordan: The Unified Model's Perspective. *Communications of the Association for Information Systems* 26: 493-525.
40. Qasim H, Abu-Shanab E (2015) Drivers of mobile payment acceptance: The impact of network externalities. *Information Systems Frontiers* 1-14.
41. Alalwan AA, Dwivedi YK, Rana NP, Lal B, Williams MD (2015) Consumer adoption of Internet banking in Jordan: Examining the role of hedonic motivation, habit, self-efficacy and trust. *Journal of Financial Services Marketing* 20: 145-157.
42. Alalwan AA, Rana NP, Dwivedi YK, Lal B, Williams MD (2015) Adoption of Mobile Banking in Jordan: Exploring Demographic Differences on Customers' Perceptions. *Open and Big Data Management and Innovation*. Springer International Publishing.
43. Callaway SK (2015) Strategic Context for Internet Banking: How Traditional Banks Manage e-Commerce to Build IT Capabilities and Improve Performance. *Journal of Internet Banking and Commerce* 20: 1-21.
44. Arenas-Gaitán J, Peral B, Jerónimo MA (2015) Elderly and Internet Banking: An Application of UTAUT2. *Journal of Internet Banking and Commerce* 20: 1-20.
45. Bock GW, Lee J, Kuan HH, Kim JH (2012) The progression of online trust in the multi-channel retailer context and the role of product uncertainty. *Decision Support Systems* 53: 97-107.
46. Akhlaq A, Ahmed E (2013) The effect of motivation on trust in the acceptance

of internet banking in a low income country. *International Journal of Bank Marketing* 31: 115-125.

47. Reid M, Levy Y (2008) Integrating trust and computer self-efficacy with TAM: An empirical assessment of customers' acceptance of banking information systems (BIS) in Jamaica. *Journal of Internet Banking and Commerce* 12: 1-18.
48. Pppoola NF (2013) The Effect of Trust in Adoption of Internet Banking: A case study of Nigeria. *Academic Research* 1: 19-24.
49. Rachwald R (2008) Is banking online safer than banking on the corner? *Computer Fraud and Security* 3: 11-22.
50. Shah MH, Braganza A, Morabito V (2007) A survey of critical success factors in e-Banking: an organisational perspective. *European Journal of Information Systems* 16: 511-524.
51. Durkin M (2007) On the role of bank staff in online customer purchase. *Marketing Intelligence and Planning* 25: 82-97.
52. Durkin M, Jennings D, Mulholland G, Worthington S (2008) Key influencers and inhibitors on adoption of the internet for banking. *Journal of Retailing and Consumer Services* 15: 348-357.
53. Forsythe SM, Shi B (2003) Consumer patronage and risk perceptions in Internet shopping. *Journal of Business Research* 56: 867-875.
54. Yildirim E, Zeren F (2014) The Relationship Between Consumer Confidence Index and Online Credit Card Using in Turkey: New Evidence From Frequency Domain Causality Test. *Journal of Internet Banking and Commerce* 19: 1-13.
55. Hanafizadeh P, Keating BW, Khedmatgozar HR (2014) A systematic review of Internet banking adoption. *Telematics and Informatics* 31: 492-510.
56. Al-Somali SA, Gholami R, Clegg B (2009) An investigation into the acceptance of online banking in Saudi Arabia. *Technovation* 29: 130-141.
57. Maduku D (2014) Predicting retail banking customers' attitude towards Internet banking services in South Africa. *Southern African Business Review* 17: 76-100.
58. Mwesigwa R, Nkundabanyanga SK (2011) Consumer Attitude, Trust, Perceived Risk and Internet Banking Adoption in Uganda. *Journal of*

Business and Economics 2: 405-416.

59. Pikkarainen T, Pikkarainen K, Karjaluoto H, Pahnla S (2004) Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet Research* 14: 224-235.
60. Yu CS (2012) Factors Affecting Individuals to Adopt Mobile Banking: Empirical Evidence from the UTAUT Model. *Journal of Electronic Commerce Research* 13: 104-121.
61. Onyia OP, Tagg SK (2011) Effects of demographic factors on bank customers' attitudes and intention toward Internet banking adoption in a major developing African country. *Journal of Financial Services Marketing* 16: 294-315.
62. Abor J (2005) Technological innovations and banking in Ghana: an evaluation of customers' perceptions. *IFE Psychologia: An International Journal* 13: 170-187.
63. Ezeoha AE (2006) Regulating internet banking in Nigeria: some success prescriptions. *Journal of Internet Banking and Commerce* 11: 35-47.
64. Agwu E (2012) A Qualitative Study of the Problems and Prospects of Online Banking in Developing Economies—Case of Nigeria. *Journal of Internet Banking and Commerce* 17: 1-20.
65. (2014) World Bank national accounts data, and OECF National Accounts data files
66. UNICEF (2011) At a glance: Nigeria-statistics.
67. Chukwuemeka EE (2009) Poverty and the millennium development goals in Nigeria: the nexus. *Educational Research and Reviews* 4: 405-410.
68. Agwu EM, Carter AL (2014) Mobile phone banking in Nigeria: benefits, problems and prospects. *International Journal of Business and Commerce* 3: 50-70.
69. Udo GJ, Bagchi KK, Kirs PJ (2012) Exploring the role of espoused values on e-service adoption: A comparative analysis of the US and Nigerian users. *Computers in Human Behavior* 28: 1768-1781.
70. Salawu RO, Salawu MK (2007) The Emergence of Internet Banking in Nigeria: An Appraisal. *Information Technology Journal* 6: 490-469.

71. Aghaunor L, Fotoh X (2006) Factors affecting ecommerce adoption in Nigerian banks. *Journal of Internet Banking and Commerce* 20: 23-28.
72. Lallmahamood M (2007) An Examination of Individual's Perceived Security and Privacy of the Internet in Malaysia and the Influence of this on their Intention to Use E-commerce: Using an Extension of the Technology Acceptance Model. PhD dissertation, Malaysian Institute of Management.
73. Guest G, Namey EE, Mitchell ML (2012) *Collecting qualitative data: A field manual for applied research*. Sage publications.
74. Bryman A, Bell E (2015) *Business research methods*. Oxford University Press, Cambridge, New York.
75. Hall B, Howard K (2008) A Synergistic Approach: Conducting Mixed Methods Research With Typological and Systemic Design Considerations. *Journal of mixed methods research* 2: 248-269.
76. InSites (2007) *Tips for analyzing qualitative data*.
77. Taylor-Powell E, Renner M (2003) *Analyzing qualitative data*. University of Wisconsin Extension, Cooperative Extension.