IT Security and E-Banking in Nigeria

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Research Article

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ABSTRACT

This study looks into Information technology security and e-banking in the Nigeria banking industry. A total of forty customers were sampled from nine different banks in Nigeria using accidental sampling method and questionnaire was used as data collection instrument. Information technology has been acknowledged as the life wire of banks in the financial sector as it promotes and facilitates the performance of banks in various countries. However, with respect to IT security in Nigeria, there is a variation in the level of trust that customers have in their banks. Most of the sampled customers responded that network is unreliable and there is an occasional experience of cash deduction without cash withdrawal when using ATM. They noted that IT security is a major challenge to e-banking in Nigeria and the banking industry is not stable enough for e-banking.

Keywords: Information technology, Security, E-Banking, Banking industries, Nigeria.

INTRODUCTION

Financial systems, all over the world, play fundamental roles in the development and growth of the economy. The effectiveness and efficiency in performing these roles, particularly the intermediation between the surplus and deficit units of the economy, depend largely on the level of development of the financial system (Ofanson, Aigbokhaevbolo and Enabulu, 2010). In this 21st century, the banking industries operate in a complex and competitive environment that is characterized by changing conditions and highly unpredictable economic climate. Information Technology (IT) is at the center of this global change curve of e-banking system in Nigeria today. The major players in the money market are the banks and discount houses. The banking industries play the intermediate role of ensuring the mobilization of idle funds from the surplus units to the deficit sector.

This is a new era of technological revolution. All over the world, countries are beginning to compete and fight over control of information rather than natural resources. Today, it is all about e-platform, this implies offering financial services through electronic media to various customers irrespective of place, time and distance. In response to the demands for quick, efficient and reliable services, players in the banking industries are increasingly deploying technology as a means of generating insights into customers’ behavioral patterns and preferences. Well developed outsourcing support functions (technology and operations) are increasingly being used to provide services and manage costs e.g. Automated Teller Machine networks, Cards processing, Bill presentment and Payments, Software Development, Call centre operations and Network management (Oluwatolani, Joshua and Philip, 2011).

Despite the positive impact of technology on society, it has on the other hand led to unintended use in criminal activities like cybercrime. It has therefore become easier to steal a penny from millions of bank account owners using the internet than through conventional bank robbery (Wada, Longe and Danquah, 2012). Since banking is highly based on trust from its customers, security issues will remain a special concern in the banking industries. Hence, the risk of hackers, denial of service attacks, technological failures, breach of privacy of customer information and opportunities for fraud created by the anonymity of the parties to electronic transactions have to be properly managed. This article looks into IT security, the percentage of trust customers have in the banking industries in Nigeria and the availability and reliability of networks. It also focuses on cash, charges and withdrawal related issues.
2. LITERATURE REVIEW

Harold and Jeff (1995) contend that financial service providers should modify their traditional operating practices to remain viable in the 1990s and the decades that follow. They noted that the most significant shortcoming in the banking industry today is a widespread failure on the part of senior management in banks to grasp the importance of technology and incorporate it into their strategic plans accordingly. In another study, Woherem (2000) stated that only banks that overhaul the whole of their payment and delivery systems and apply ICT to their operations are likely to survive and prosper in the new millennium. He advised banks to re-examine their service and delivery systems in order to properly position them within the framework of the dictates of the dynamism of information and communication technology. At present, there is no doubt that banking industries, all over the world, have benefitted from the wide application of technology.

According to Ankrah (2012), contemporary technology in banking comes in the form of computer based application and information technology. From the banking customer’s perspective, two of the practical purposes of banking are convenience and accessibility to both funds and account information. He also noted that the advent of technology has enabled the provision of banking products and services through electronic delivery channels known as e-banking. Electronic banking can be described as the act of using electronic devices to carry out the business transactions of a bank. Examples of electronic devices that are used include Computer Systems, Global System for Mobile Communication (GSM) phones, Automated Teller machine (ATM), Internet facilities, Optical Character Recognition (OCR), Smart Cards, etc. Agboola (2006) revealed that e-banking is still at the infant level in Nigeria with most of the banks having mainly information sites and providing little Internet transactional services. However, most studies in these areas revealed that there has been a very steady move away from cash as transactions are now being automated (Muyiwa, Tunmibi and John-Dewole, 2013).

However, the wide use and application of information technology in the banking industries has also led to emerging threats and attacks, basically in the form of computer crimes and fraud (Wada, Longe and Danquah, 2012). Hence, there is a need to protect customers and stakeholders involved in information technology services. Advance Fee Fraud Act, Laws of the Federation of Nigeria, 2006, defined economic crime as “the nonviolent criminal and illicit activity committed with the objectives of earning wealth illegally, either individually or in a group or organized manner thereby violating existing legislation governing the economic activities of government and its administration to include any form of fraud, narcotic drug trafficking, money laundering, embezzlement, bribery, looting and any form of corrupt malpractices, illegal arms deal, smuggling, human trafficking and child labor, oil bunkering and illegal mining, tax evasion, foreign exchange malpractices including counterfeiting of currency, theft of intellectual property and policy, open market abuse, dumping of toxic wastes and prohibited goods” (Wada and Odulaja, 2012). According to Ewelukwa (2011), advance Fee Fraud and Other Fraud Related Offences Act 2006 is currently the only law in Nigeria that deals with internet crime issues and it only covers the regulation of internet service providers and cybercafés, it does not deal with the broad spectrum of computer misuse and cyber crimes.

3. RESEARCH METHODOLOGY

This study was carried out, using accidental sampling method. A total of forty customers were sampled from nine different banks in Nigeria. Questionnaire was used as data collection instrument and descriptive statistical method (use of frequency tables and charts) was adopted for analysis.

4. RESULT

4.1 Demographics

The two figures below represent the gender and age of respondents. The responses on gender show that male respondents accounted for 57% while the female respondents are 43%. For age, majority of the respondents (47%) are between 21 to 25 years, this is followed by those between 16 to 20 years (37%) and 26-30 years (13%), while the least number are those that are 30 years and above (3%).
4.2 Percentage of trust

The figure below shows the level of trust that customers in Nigeria have in their banks. The ranking is as follows: 0-20 indicates very little, 21-40 indicates little, 41-60 indicates average, 61-80 indicates high and 81-100 indicates very high. From the graph, about 45% of the respondents have high level of trust in their banks, and only about 10% have very high level of trust in their banks. Also, about 25% have average trust while about 20% have little trust in their banks.

4.2 Network and other banking-related issues

The figure below shows the responses to network and other banking-related issues. Though equal percentage of customers agreed and disagreed on availability of network in the banking industries in Nigeria, a higher percentage (about 60%) disagreed that network is reliable. About 70% agreed that there are times the ATM will make deductions from their account without any cash withdrawal, while only 40% agreed that they have had an experience of fraudulent acts with scammers during mobile money transfer. On e-banking, only 45% of the respondents agreed
that the Nigeria banking system is stable enough for e-banking and about 77% agreed that insecurity in the financial institutions in Nigeria may jeopardize e-banking in Nigeria.

![Bar chart showing customer opinions on network reliability and ATM deductions.]

### Figure 4

#### 4.2 Conclusion

This study shows that about one fifth of the sampled customers have little trust in their Nigeria banks while a quarter are at the average level of trust (neither high nor low). The study shows further that one of the most likely reasons for this variation is network reliability in the banking industry. Most of the sampled customers responded that the banking sector operates with an unreliable network. Another likely reason for the variation in the level of trust, as discovered from the study, is cash deduction from account without any cash withdrawal while using ATM. This is a common observation among customers of various banks in Nigeria. It is therefore not a surprise that most sampled customers concluded that Nigeria banking system is not stable enough for e-banking and insecurity in the financial institutions is a major obstacle to electronic banking. Obviously, the banking industries in Nigeria have more responsibilities on their shoulders as far as information technology security and e-banking are concerned in the sector.

### REFERENCES


