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Adoption of E-Business on Firm Competitiveness: A Study of Banks in Port Harcourt

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Abstract:

This study is to investigate the adoption of E-business on firm competitiveness of 19 banks in south-south Nigeria. The sample consists of the zonal manager marketing, operation, audit and ICT managers of these banks in Port Harcourt totally 76 persons. The study utilized purposive sampling technique, which is a non-probability sample design and utilized cross-sectional survey method. Seventy-six (76) questionnaires were distributed and sixty-four (64) was used as the useful response for data analysis. Spearman rank correlation coefficient (r) statistical tool was used in testing the hypothesis. Positively, the result of the analysis review that perceived ease of use, compatibility of e-banking were associated with competitiveness of banks. It was found that a significant correlation coefficient exist among all variables except the relationship between perceived ease of use and customer loyalty.

1. Introduction

1.1. Background of the Study

E-business means conducting business such as buying and selling of products and services over the internet. It also involves mobile commerce (carrying out business over the mobile phones), making payments over the internet most commonly through net banking, credit/debit cards and pay pal and checking out what other people have bought and their reviews, even having a simple website that gives information about your business can generate leads for you.

The advancement in information technology has greatly transformed the business transaction in Nigeria. The adoption of electronic banking has received greater attention in the banking industry. Nowadays, banks in Nigeria have adopted electronic banking system to improve their operation.

Electronic banking has impacted positively on banks performance in Nigeria since the introduction bank profitability has increased from what it used to be. It makes possible for banks to provide improved service delivery and convenience by enhancing their value network.

1.2. Statement of the Problem

- Traditional banking is a way of person to person service delivery over the counter.
- Traditional system allows bank customer to perform routine financial activities and to conduct standardized business transaction by using branch counters.
- Customers are force in accepting off-the shelf financial products or services by the banks.
- Delay in service delivery by the banks.
- Unavailability of adequate locations where customers can be served.

1.3. Conceptual Framework

In this study, e-business on firm's competitiveness which is the independent variable will be operationalized with perceived ease of use. Perceived ease of use is one of the factors influencing acceptance of technology.

Similarly, personalized service and customer loyalty will be measure used in operationalizing, the dependent variable (firm competitiveness).

However, the independent and dependent variables are moderated by information technology.

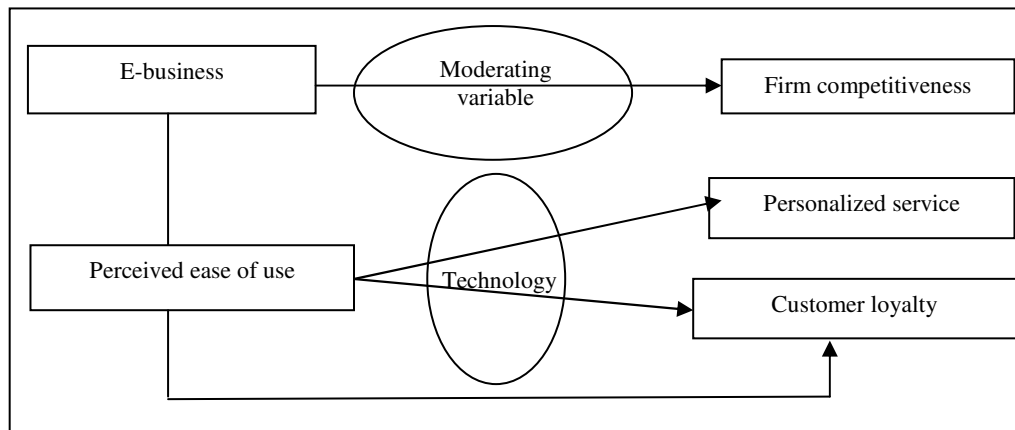


Figure 1: Adopted from Bedman (2012); Lovelock and Wortz, 2011); Robinson, (2000)

1.4. Purpose of the Study

The aim of this study is to investigate the E-business on firm competitiveness in selected Banks in Port Harcourt. Specifically, the study will be designed to achieving the following objectives.

1. To determine the relationship between e-business and firm competitiveness.
2. To determine the relationship between perceived ease of use and personalized service.
3. To determine the relationship between perceived ease of use and customer loyalty.

1.5. Research Questions

For the purpose of this study the following research questions have been formulated.

1. To what extent does perceived ease of use relate to personalized service?
2. To what extent does perceived ease of use relate to customer loyalty?
3. To what extent does information technology relate with e-banking adoption and competitiveness of banks?

1.6. Research Hypotheses

Based on the research questions, the following hypotheses will be formulated.

- H₀₁: There is no significant relationship between perceived ease of use of e-banking and personalized service of banks.
- H₀₂: There is no significant relationship between perceived ease of use of e-banking and customer loyalty of banks.
- H₀₃: There is significant relationship between e-banking acceptance and competitiveness of banks.

1.7. Significance of the Study

Practically, the findings/results from the study work would create more awareness to the management in the banking sector as well as their staff.

This study would also be relevant to scholars, students of management who may engage in academic research in this field.

It is believed that the findings of this study will generally contribute to the existing body of knowledge on administrative sciences.

1.8. Scope of the Study

The scope of this study centered on the basic areas which include the following.

- Domain scope: The study is domicile in consumer behavior and is focused in the e-business on firm competitiveness: a study of banks in Port Harcourt. It examined e-business on firm competitiveness: a study of banks in Port Harcourt.
- Geographical scope: This refers to the unit/level of analysis. The unit of analysis for this study is at the organizational level. And the level of analysis are the management staffs of the banks in Port Harcourt.

1.9. Limitations of the Study

As it is with every research conducted by humans, this research work will have its own limitations. A lot of time and money is spent in gathering information and materials for the study. From the defined target population, posed some problems and difficulties as they are head of marketing, audit, ICT and operations who most of the time are engaged because of the enormous work challenges and schedule they face. In view of this, the difficulty experienced by the researcher in trying to get the respond to the questionnaire constitutes a limitation on the study.

Also, the belief on the part of the respondents that supplied information may be used for purposes other than that for which they were sought for resulted in not supplying the necessary information that would have helped in the study, this therefore was a major limitation on this study.

1.10. Definition of Terms

- E-Business: (Electronic business) is using technology to improve your business processes
- E-Business transaction: A logical unit of business conducted by two or more parties that generates a computable success or failure.
- E-banking: This electronic banking, which is the provision of banking services to customers through internet technology.
- Competitiveness: this describes a situation where organizations try to be more successful or better than other organization.
- Banking sector: Within the context of this study, it seen as those banks in Nigeria that receives money and valuables form customers for safe-keeping.
- Internet Banking: This is a processes where funds can be transferred and received through the aid of computer system.
- Perceived ease of use: Is the degree or extent to which a person accepts that using a certain technology would be free of efforts (Bedman, 2012).
- Customer Loyalty: Is the consumer willingness to continue patronizing a firm product over a long term (Lovelock and Wortz, 2011).
- Personalize service: Is an innovative product/service that helps individuals manages their finances with convenience and exclusivity (Robinson, 2000).

1.11. Organization of the Study

This research work is organized into five chapters. Chapter one covers background of the study, research questions, research hypotheses, significance of the study, scope of the study, limitation of the study, conceptual framework of the study, definition of terms and organization of the study.

Chapter two covers related literature based on the conceptual framework of the study.

Chapter three covers the research design, sampling technique, study population, method of data collection and analysis.

Chapter four covers on the representation, analysis and interpretation of data.

Chapter five covers the findings, conclusion and recommendations.

2. Review of Related Literature

2.1. The Concept of Electronic Banking (E-Banking)

According to Ojeka and Ikpefan (2011), the concept of e-banking includes types of banking activities performed through electronic networks. They maintained that e-banking refers to several types of services through which a bank customer can request information and carry out most retail banking services through a computer, or mobile phone, Atiku, Genty and Akinlabi (2011) posits that e-banking refers to systems that enable banks customers to get access to their accounts and general information on banks products and services through the use of banks website without intervention of or inconvenience of sending letters, faxes, original signatures and telephone confirmations.

Bedman (2012) defined e-banking as banking by which individuals transfer funds, make account balance enquires, pay bills and manage such assets stocks online. It is the use of banking products and services over electronic and communication networks directly by customers

2.2. Development of E-Banking in Nigeria

Electronic banking is the way a bank carry-out business transaction using electronic devices such as computer systems, Global system for mobile communication (GSM phones, Automated Teller Machine (ATM), internet facilities etc.

In an effort to encourage e-banking, the government of Nigeria promoted electronic banking with which the CBN released a guideline on August 2003, having recognized that electronic banking and payments services are still at the early stages of development in Nigeria.

Arising from the three major roles of the CBN in the areas of monetary policy, financial system stability and payments system oversight, the CBN Technical committee on E-Banking, produced a report, which participates the likely impact of the movement towards electronic banking and payment systems on the achievement of CBN's core objectives (Morufu and Taibat, 2012).

However, based on the findings and recommendations of the CBN Technical committee on E-banking four categories of guideline have developed as follows.

- a. Information and communication Technology (ICT) standards to address issues relating to technology solutions deployed, and ensure that they meet the need of customers, economy and international best practice in the area of communication hardware, software and security.
- b. Monetary policy, to address the issue relation to how increased usage of internet banking and electronic payments delivery channels would affect the achievement of CBN's monetary policy objectives.
- c. Legal guidelines to address issues on banking regulations and consumer right protection.
- d. Regulatory and supervisory, to address issues that, though peculiar to payment system in general, may be amplified by the use of electronic media.

The guidelines are expected to inform the future conduct of financial institutions in electronic banking and electronic payments delivery. This landmark step provided legal recognition of digital signatures and documents, thus reducing the risks associated with the use of electronic banking in Nigeria (Morufu and Tabibat, 2012).

According to the study conducted by Oluwagbeni, et al (2011), they found out that the information communication Technology has dramatically transformed the traditional banking system to E-banking system. Some of the major impact of information technology in Nigeria banking system as stated include:

- 1) Automated Teller Machine (ATM): ATMs are a computer controlled device that dispenses cash, and may provide other services to customers who identify themselves with a personal identification number.
- 2) GSM Banking: This mode of e-banking makes use of the global system for mobile communication (GSM) Phones as the primary doctrine device.
- 3) Electronic Fund Transfer: customer can now electronically transfer funds across the global without any problem or delay as compared to the traditional method before the advent of information technology when funds are seriously delayed before they are delivered to the recipients.
- 4) On-line Banking: with the aid of information technology, online banking provides the opportunity of paying bills and performing transactions of any kind electronically.
- 5) Electronic Mail: Information technology has given rise to electronic mail which improves communication between individual, external parties and the bank within or across various geographical regions or boundaries.
- 6) Bankers Automated Clearing Services: This involves the use of magnetic ink character reader (MICR) for cheque processing.
- 7) Internet Banking: through internet banking you can check your transactions at any time of the day and as many times as you want to where as in a traditional method you get quarterly statements from the banks.
- 8) Credit card/debit card: The credit card holder is empowered to spend wherever and whenever he wants with his credit card within the limits fixed by his bank. Credit card is a postpaid card. Debit card considered as a prepaid card with usage facility limited to the balance in the linked deposit account of the card holder.
- 9) RTGS Fund Transfer: RTGS is an inter-bank funds transfer system where bank transfer money to each other on behalf of their customers.

Consequently, information technology had made a significant impact in banking sector in Nigeria as flexible and convenient services are provided to customers.

Presently, all the banks in Nigeria have set up their own ATM, Networks, issue debit and credit cards and have joined ATM Switch Network (Morufu and Taibat, 2012).

2.2.1. Benefit of Electronic Banking (E-Banking)

E-banking is a way of on-line transaction through the internet. It constructs an alternative channel by which customers can easily make a transaction anywhere-anytime and reduce their needs for financial intermediaries (Jen-Her Wu, et al (2006).

Bank have created new sources of income by offering more sophisticated products and services which would not have been possible without the use of electronic banking. Examples of services offered online are online trading, e-invoicing and internet banking. The whole banking landscape is changing as internet-based business models are changing traditional brick and mortar banking by offering services online, which are traditionally performed by tellers.

2.2.2. Challenge of E-Banking

Although, electronic banking provides many opportunities and benefits for the banks, it also characterized with challenges.

According to Oladejo and Akanbi (2012) banking services provided through internet are limited due to security concerns, complexity and technological problems. Nancy et al (2001) as in Oladejo and Akanbi (2012) indicates that customers complain about computer log-on times which are usually longer than making a telephone call constitute a challenge to e-banking.

Similarly, Lioa and Cheung (2002) found that individual expectations regarding accuracy, security, transaction speed, user friendliness, user involvement and convenience are the most important attributes in the perceived usefulness of internet based e-banking.

2.2.3. Differences between Traditional Banking System and E-Banking

In order to examine the major differences between traditional banking and electronic banking system, an understanding of the concept and nature of innovation is very necessary. Innovation is the use of new technology and business related knowledge to offer new products or services that customers want. Essentially, E-banking is a financial innovation that is enabled by creative use of emerging information technology and other business forecast. (Jen-Her Wu, et al 2006). Accordingly, the innovation encompasses a set of aspects: IT, customer, finance, Marketing, and strategy. These aspects can be classified into two major domains: technology and business model that underpin a banks capability (Holland and Westwood, 2001, Wu et al, 2006).

A scholar defines technological knowledge as the technologies that help maintain an e-banking environment within and across the organizations. The dimension of technological knowledge can be classified into:

- IT – infrastructure: consisting of a network architecture and application platform.
- Transaction: consisting of a transaction mechanisms and security schema.
- Service: consisting of customer services and service delivery.

2.2.4. Business Implications

The increased use of electronic banking for process efficiency has implications. Bank need to put resources into securing intuitive ICT software and hardware. Otherwise the cost especially in terms of educational and re-schooling will outgrow the benefits from ICT-

enabled processes and may lead to dissatisfaction among employee. It is important to eliminate the need for manual “work-rounds’ or excessive retraining- ABA Banking journal, May (2006). The new efficiency alignment.

2.3. Electronic Banking and Process Efficiency

In sum, the increased focus on advanced information technology enabled systems may prove difficult for especially small and medium sized banks due to the resource intensive development of new information technology and work process. However, benefits in the form of product and service innovation are to be reaped if the smaller banks invest in electronic banking.

Another option is outsourcing of information technology, which may be a way forward for small and medium-sized banks without the financial and human resources to develop ICT solutions. ICT outsourcing is thus a way for smaller banks to take advantage of ICT-enabled process efficiency gains large banks also benefits from ICT sourcing, but they often have the financial and human resources to opt for the in-house model, while smaller banks tend to outsource parts of the ICT development.

2.3.1. The Theory of Reasoned Action

According to Fishbeing and Ajzen (1975) The theory of reasoned action is a model for predicting behavioural intention, spanning predictions of attitude and predictions of behaviour. This was derived from previous research that started as the theory of attitude, which led to the study of attitude and behaviour.

The components of TRA are three general constructs: Behavioural intention (B_1), Attitude (A), and subjective norm (SN). TRA depends on the person’s attitude about the behaviour and subjective norms ($B_1 = A + SN$). If a person intends to do a behaviour then it is likely that the person will do it. Behavioural intention measures a person’s relative strength of intention to perform a behaviour.

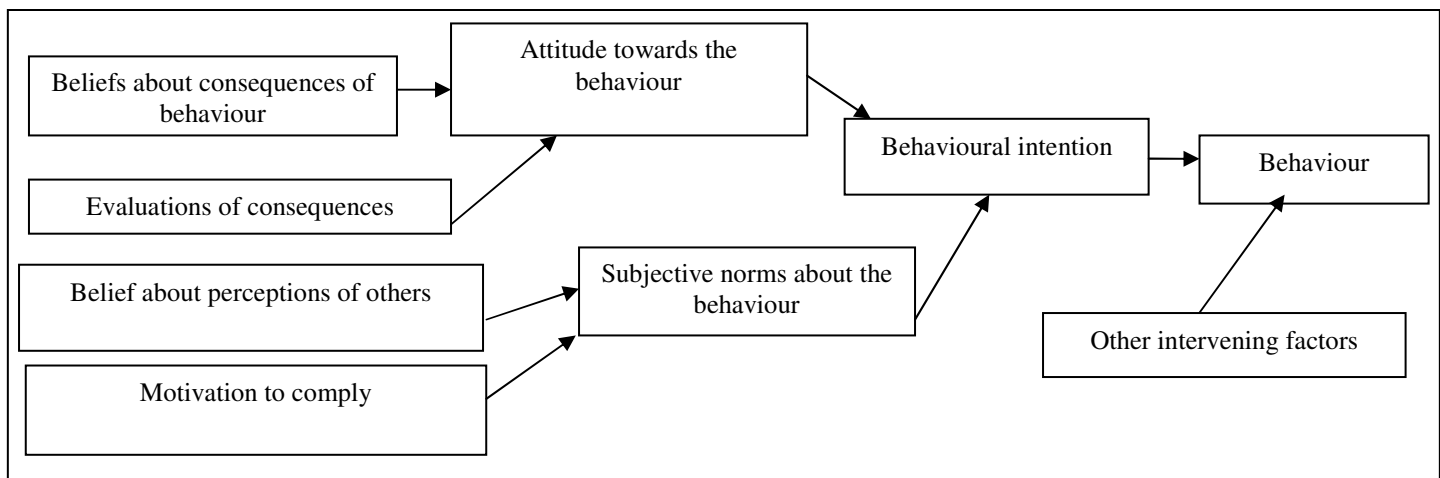


Figure 2: Theory of Reasoned Action

Source: “(Fishbeing and Ajzen, 1975) as adapted from www.wikipedia.com, 2013.

From the figure above, behaviour is said to be approximately equal to behavioural intention, which can be derived from a combination of the consumer’s attitude toward purchasing the product and the subjective norms about the behaviour. Through the concept of subjective norm, the theory acknowledges the power of other people in influencing behaviour (Solomon, 2006), explicitly, it accounts for the thoughts of others towards the certain behaviour, and is moderated by the extent to which the consumer is motivated to comply to these views. This relative contribution of attitudes and subjective norms will not necessarily be equal in predicting behaviour (Miller, 2005).

2.3.2. Technology Acceptance Model (Tam)

This is an information system theory that models how users come to accept and use a technology. Technology Acceptance Model (TAM), which was adopted from the theory of reasoned action (Fishbein and Ajzen, 1975), was developed by Davis in 1989. TAM has been the most influential theoretical tool for explaining the user’s acceptance of technology (Al-Ajam and Khatil, 2013). The purpose of this model therefore is to predict the acceptability of a tool and to identify the modifications which must be brought to the system in order to make it acceptable to users.

In fact, TAM is the most widely used model to explain computer usage behavior as relates to technology adoption. This model suggest that the acceptability of an information system is determined by two main factors:

Perceive ease of use and perceived usefulness. Perceived usefulness is defined as being the degree to which a person believes that the use of a system will improve his performance, and perceived ease of use refers to the degree to which a person believes that the use of a system will be effortless. (www.edu.tech.wiki.com).

Specially, TAM proposes two beliefs- perceived ease of use and perceived usefulness that determined one’s behavioral intention to use a technology. Behavioral intention is a major of the strength of one’s intention to perform a specified behavior.

The figure 2.6 below shows the Technology Acceptance Model (TAM).

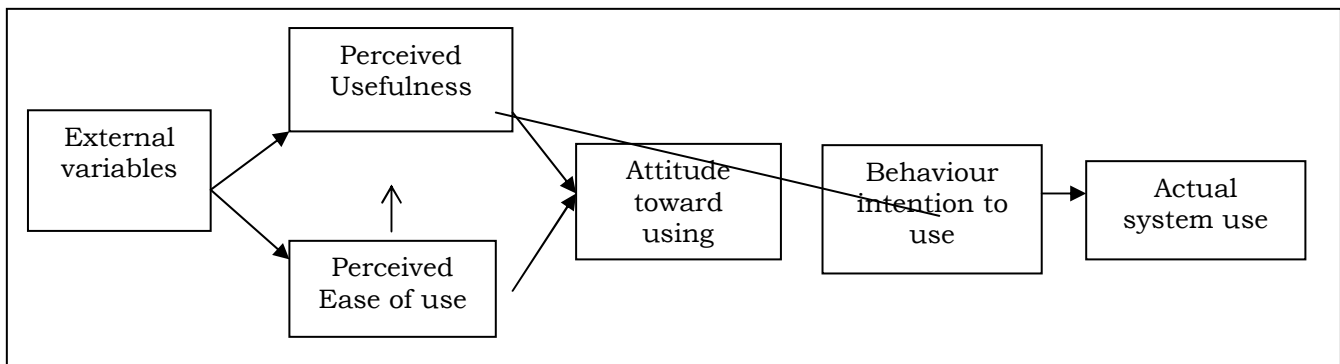


Figure 3

Source: (Davis, 1989) Adapted from www.edu.tech.wiki.com.2013

2.3.3. Diffusion of Innovation Theory in Information System

Agarwal and Prasad (1998), working in an information system, context, expanded upon the five factor impacting the adoption of innovations presented by Rogers, generating (8) eight factors. (voluntariness, relative advantage, compatibility, image, ease of use, result demonstrability, validated and trial ability that impact the use of information technology.

Since the early application of diffusion of innovation to IT research, the theory has been applied and adopted in numerous ways. Research as however, consistently found that technical compatibility, technical complexity, and relative advantage (perceived need) are important antecedents to the adoption of innovations Agarwal and Prasad (1998).

2.3.4. Comparison between Tam and Other Innovation Adopted Models

Several studies have been carried out to examine the factor affecting technology adoption. Some researcher has investigated the feature of computer systems such as format, timeliness accuracy, content and ease of use as important factors in end-use satisfaction assessment toward a technology. (Hamid, 2008).

Past studies have also examined the characteristic of diffusion of innovation theory to ascertain different degree of willingness of individual to adopt an innovation.

Therefore, looking at the Technology acceptance model and other adoption models, it is obvious that they are relevant in analyzing the adoption of technology. In the case of TAM, it asserts that user's decisions to use a technology depends on two factors perceived ease of use and perceived usefulness.

2.4. Empirical Studies on E-Banking Usage

A series of empirical research studies on E-banking usage have being carried out both in Nigeria and other parts of the world due to the perceived benefits it has in the banking sector. For instance, Oladejo and Akanbi (2011) in their study which was aimed at ascertaining banker's perception of electronic banking in Nigeria, found that bankers in Nigeria perceived electronic banking a tool for minimizing inconvenience, reducing transaction costs, altering customer queuing pattern and saving customers banking time,

Aliyu, and Tasmin (2012), studied the relationship between electronic banking adoption and the determining factors for critical success of electronic banking in Nigeria. They established that awareness of ease of use security, reluctance to change and accessibility are the factors determining the adoption of electronic banking in Nigeria. Also, Dauda and Akingbade (2011), researched on customer and employee response to technology innovation and their effects on the performance of the Nigeria banks, pointed out technological innovation influence banks employee's performance, customer satisfaction and improvement in banks profitability. They also posit investment in ICT should form an important component in the overall strategic banking operation because this will make Nigerian banks to be efficient, profitable, competitive and to cope with the changes and challenges that are outcome of ICT controlled globalized economy.

Infact, studies on e-banking adoption have bothered so much on the impact of e-banking adoption on the customer with little or no extensive studies on E-business on firm competitiveness.

Based on the above, this study seeks to investigate the E-business on firm competitiveness, a study of banks in port Harcourt, therefore, this gap is what the study intends to fill.

2.5. Firm Competitiveness on the Banking Sector

Banks are financial institution that accepts deposits, grant business loans and provide other related services. A variety of deposit accounts such as checking, savings and time deposit are allowed by the banking sector. These institutions are run to make a profit and owned by a group of individuals or corporate bodies.

There is no doubt that the competition in Nigeria banking sector is getting more intense, partly due to regulatory supervision strictness from the central bank of Nigeria and also due to customer's awareness of their rights have become increasingly demanding, as they require high quality, low priced and immediate service delivery (Kasum, Abdulraheem and Olaniyi, 2006).

Banks compete in various ways for deposit customers. They offer a full range of services and attract customers with "one-stop" banking that is convenient. Competition for deposit among banks in Nigeria has been undergoing rapid change and intensification as a

result of the innovative products of the various banks in the area of E-banking adoption in the industry. These electronic innovations have made banks to compete effectively in an effort to provide efficient and quality service delivery to the customers so as to gain competitive advantage over others.

2.6. E-Business on Firm Competitiveness on the Banking Sector

The introduction of electronic banking has greatly improved banking efficiency in rendering services to customer.

According to Josiah and Nancy, (2012), there are positive impacts of e-banking on bank turnover and profitability and to a lesser extent on employment, most notably when e-commerce is partly larger business strategies of bank.

The use of e-banking contributed to improve bank performance in the area of increase market share expanded product range, customized or personalize products and better response to client demand (Josiah and Nancy, 2012).

Considering the influence of information technology in the banking sector Jen-Her Wu et al (2006) maintained that electronic banking introduces alternative approaches by which banks can provide individual offering services to attract customer interests, increase customer loyalty, transactions and that customer can choose their personalized financial service.

2.6.1. Perceived Ease-of-Use and Competitiveness

According to technology acceptance model (TAM) developed by Davis (1989), perceived ease of use is one of the factors that influence the introduction or acceptance of an innovation or new technology. As a factor that necessitates an acceptance of an innovation, perceived ease of use is the degrees to which an innovation is perceived as easy to understand, learn or operate.

Bedman (2012), notes that perceived ease of use is the extent to which a person accepts that using a certain method would be free of effort and at no cost to him or her. This means that in the acceptance of electronic banking, the technology should be easier to use and such that it will enhance the employee performance in terms of service delivery. Moon and Kim (2001) supported this point when they maintained that ease of use and usefulness are believed to be essential in determining the acceptance and the use of a number of corporate information technology.

In Lee (2009) perceived ease of use was found to influence the adoption of internet banking service. Generally, when a system is found to be ease of use, users will have the intention to use the system. This means that perceived ease of use is the extent to which customer use of internet banking and other e-banking services as easy and effortless.

Specifically, Davis (1986) asserts that acceptance of technology depends on the perceived ease of use of the system. In the introduction of e-banking, the perception of the employees on the ease of use of information technology helped in ensuring quality service delivery to the customers

Josiah and Nancy (2012), established that e-banking introduction contributed to improve bank performance, in terms of increased market-share, expanded product range customized or personalized products and better response to client demand.

Wu et al (2006), notes that e-banking introduction offer alternative approaches by which banks can provide individual offerings and services to attract customer interests, increase customer loyalty, repeat transaction and that customer can choose their personalized financial service.

2.6.2. Importance of Employee Skill and Knowledge of Information Technology in E-Banking Acceptance

The advancement in information technology especially in the banking sector had necessitated the automation of banking services in innovations to improve services delivery and high level of customer's satisfaction (Atiku, Genty and Akinlabi, 2011).

Nigerian banks are now highly ICT based and this requires employees who are skillful and knowledgeable in the use of information technology. In providing e-banking services effectively. Shah and Siddiqui (2006), Bedman (2011) posit that there must be enough ICT professionals well trained, who will manage the e-banking system in order to ensure its smooth running on a continuous basis. The skill and knowledge of information technology will help the employee to provide an efficient service delivery to the customers. This will also increase the confidence of their customers thereby ensuring their loyalty to the bank, (Shad and Siddique, Bedman, 2011).

Also Hamid (2008) stressing on the importance of employee's knowledge and experience in information system, noted that when users gain more experience using internet, they tend to learn the usefulness as well as the disadvantage of the technology. For example, experienced users may find the process of information search becomes much easier.

In fact, the employee skill and knowledge in the use of information technology determine to a great extent, their willingness and ability to adopt e-banking services. It plays a major role with regard to their attitude towards the use of technology (Bedman, 2012). In Atiku, Genty and Aknkabi (2011), it was established that the knowledge and skill of banks employees in usage of information technology is necessary in meeting the developmental needs of the banks as well as enhance their competitiveness in the global economy.

2.6.3. Measure of Competitiveness Customer Loyalty

Customer loyalty is all about attracting the right customer, getting them to buy, buy often in high quantities and bring you even more customers.

Customers exhibit loyalty when they considerably purchase or patronize certain product/service or brand over an extended period of time. Customer loyalty is the key objective of customer relationship management and describes the loyalty which is established between a customer and organizations.

Loyalty has been used in a business context, to describe a consumer's willingness to continue patronizing a firm product over the long term, preferably on an exclusive basis, and recommending the firms products to friends and associates (Lovelock and Wortz 2011) customer loyalty is widely seen as a key determinant of a firm's profitability and competitiveness.

The quality of services is the basis about guaranteeing the customer loyalty. Banks are expected to improve the quality of their services so as to retain or attract potential customers. Banks need to identify customers, tailor products and service to meet their needs and provide these products /services to them.

2.6.4. Personalized Service

Robinson (2000) personalized service is a service provided to a particular individual that have some distinctive features peculiar to that individual.

It is an innovative product/service that help individual manage their finances with convenience and exclusivity (Robinson, 2000).

The banking sector have contributed to the growth and development of several profitable businesses through its wide range of value-added products/services to customers that make the bank unique and distinct from other sectors of the economy. (Oladejo and Akanbi, 2001)

3. Research Methodology

The researcher adopted the survey research design. This is because the survey relied on a sample of elements from the population of interest which are measured at a point in time.

3.1. Population of the Study

The population of this study would be drawn from the Nineteen (19) banks operating in Port Harcourt Nigeria.

The target respondent for this study are the marketing, operation, audit and ICT managers of these banks.

3.2. Sample and Sampling Techniques

This study is non-probability sample design. The study will utilize cross-sectional survey method.

In pursuance of the objectives of the study the researcher's attention is focused on all corporate regional headquarters of the banks operating in Port Harcourt region in Rivers state.

The sample design is purposive sampling, therefore, there is no need to sample since the study population is few (19) banks, however, in order to get a representative of the population, we intend to select four (4) management staffs from each of the banks. The target respondents are the zonal manager marketing, operation, audit and ICT managers of these banks in Port Harcourt totaling 76 persons.

3.3. Nature/Sources of Data

This study will use both secondary and primary data. The sources of secondary data are research paper, textbooks, journals as well as materials from internet. The chapter on review of related literature relied much on these sources of secondary data for information.

The major source of primary data will be from the questionnaire.

3.4. Method of Data Collection/Instrument

A structured questionnaire will be the main data gathering instrument. It is made up of two parts – A and B. Part A capture information about the respondents such as qualification, department/unit etc. and part B contained information on the impact of e-business on from competitiveness a study of banks in Port Harcourt. The questionnaire will be structured using the 5-points like a scale of Strongly Agree = (5), Agree = (4), undecided = (3), Disagree (2) and Strongly Disagree= (1).

3.5. Operationalization of variables

Operationalization of variables has to do with the process of developing, measuring items that will yield data to answer the research question Aywokeni (2004). The variables to be investigated on this study are the predictor variable which is e-banking being operationalized using 8 items which was adopted from the work Bedman (2012), on perceived ease of use. The criterion variable which is firm's competitiveness is operationalized using 8 items that was adopted from the work Robinson (2000) on personalized service, and Lovelock and Wortz (2011) on customer loyalty. The moderating variable which is technology will also be operationalized using 3 items which is also adopted from the work of Tornatzky and Fleischer (1999). The responses to each of the items were rated on a 5 point Likert scale labeled as follows:

1. strongly disagree
2. disagree
3. undecided
4. agree
5. strongly agree

3.6. Method of Data Analysis

Data obtained from the questionnaire will be analyzed through simple percentages, tables and averages. Spear man rank order correlation will be used in testing the research hypothesis.

3.7. Validity and Reliability of Instrument

Validity is the degree to which a study accurately reflects or measures the concept that it purports to measure. Therefore, to ensure validity of the instrument, the research instrument will be presented to the supervisor as well as experts or professionals in the field for appropriate validation.

3.8. Reliability

This is the degree to which an instrument is free from measurement error and therefore yields consistent results. Cronbach Alpha will be used to determine the level of internal consistency.

4. Analysis

HO₁

Correlations				
			PERCEIVED EASE OF USE	PERSONALISED SERVICE
Spearman's rho	PERCEIVED EASE OF USE	Correlation Coefficient	1.000	.373**
		Sig. (2-tailed)	.	.000
		N	64	64
	PERSONALISED SERVICE	Correlation Coefficient	.373**	1.000
		Sig. (2-tailed)	.000	.
		N	64	64

** . Correlation is significant at the 0.01 level (2-tailed).

Table 1

Our first hypothesis on perceived ease of use and personalized services shows there is a significant relationship with a correlation coefficient of .373 and a p-value of .000 which is less than our alpha of 0.05. Therefore, we reject the null hypothesis.

HO₂

Correlations				
			PERCEIVED EASE OF USE	CUSTOMER LOYALTY
Spearman's rho	PERCEIVED EASE OF USE	Correlation Coefficient	1.000	.344**
		Sig. (2-tailed)	.	.000
		N	64	64
	CUSTOMER LOYALTY	Correlation Coefficient	.344**	1.000
		Sig. (2-tailed)	.000	.
		N	64	64

** . Correlation is significant at the 0.01 level (2-tailed).

Table 2

Hypothesis two also shows a significant relationship with a correlation coefficient of .344 and a p-value of .000 which is also less than our alpha level (0.05), therefore we reject the null hypothesis.

HO₃

Correlations						
			PERCEIVED EASE OF USE	COMPATIBILITY	PERSONALISED SERVICE	CUSTOMER LOYALTY
Spearman's rho	PERCEIVED EASE OF USE	Correlation Coefficient	1.000	.533**	.373**	.344**
		Sig. (2-tailed)	.	.000	.000	.000
		N	64	64	64	64
	COMPATIBILITY	Correlation Coefficient	.533**	1.000	.642**	.373**
		Sig. (2-tailed)	.000	.	.000	.000
		N	64	64	64	64
	PERSONALISED SERVICE	Correlation Coefficient	.373**	.642**	1.000	.452**
		Sig. (2-tailed)	.000	.000	.	.000
		N	64	64	64	300
	CUSTOMER LOYALTY	Correlation Coefficient	.344**	.373**	.452**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	64	64	64	64

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3

Correlation matrix showing the relationship existing among our predictor and criterion variable.

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Correlations			PERCIEVED EASE OF USE	COMPATIBILI TY	PERSONALIS ED SERVICE	CUSTOMER LOYALTY
Control Variables	TECHNOLOGY PERCIEVED EASE OF USE	Correlation	1.000	.434	.236	.089
		Significance (2-tailed)	.	.000	.000	.125
		df	0	297	297	297
	COMPATIBILITY	Correlation	.434	1.000	.504	.091
		Significance (2-tailed)	.000	.	.000	.115
		df	297	0	297	297
	PERSONALISED SERVICE	Correlation	.236	.504	1.000	.133
		Significance (2-tailed)	.000	.000	.	.021
		df	297	297	0	297
	CUSTOMER LOYALTY	Correlation	.089	.091	.133	1.000
		Significance (2-tailed)	.125	.115	.021	.
		df	297	297	297	0

Table 4

Our fourth hypothesis shows a significant correlation coefficient existing among all variables except the relationship between perceived ease of use and customer loyalty as well as between compatibility and customer loyalty. This is the situation where organizational culture acts as a moderating variable. We shall therefore reject the null hypothesis which also mean that there is a significant relationship existing between our predictor and criterion variable when organizational culture is a moderating variable.

USING E-BANKING SERVICES MAKE OUR OPERATIONS EASIER AND MORE CONVINENT					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	2	3.1	3.1	3.1
	N	5	7.8	7.8	10.9
	A	26	40.6	40.6	51.6
	SA	31	48.4	48.4	100.0
	Total	64	100.0	100.0	

Table 5

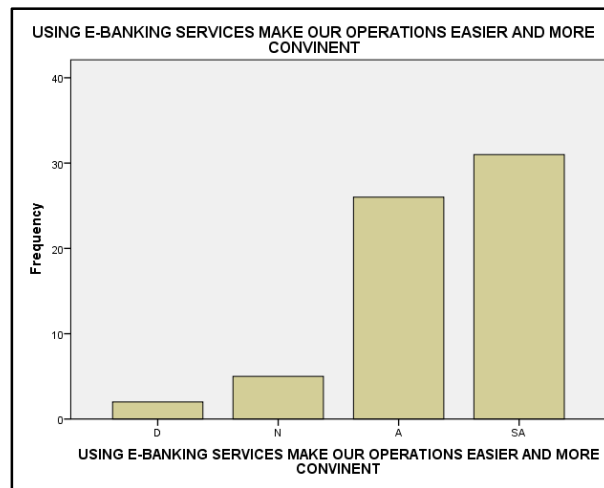


Figure 4

E-BANKING TECHNOLOGY ENABLES US TO COMFORTABLY AND CONFIDENTLY PERFORM OUR OPERATION AT ANY OF OUR BRANCH OFFICES					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	D	6	9.4	9.4	9.4
	N	7	10.9	10.9	20.3
	A	28	43.8	43.8	64.1
	SA	23	35.9	35.9	100.0
	Total	64	100.0	100.0	

Table 6

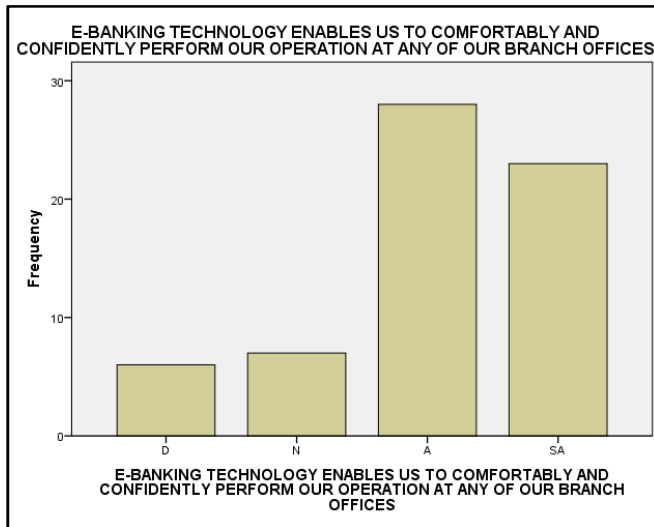


Figure 5

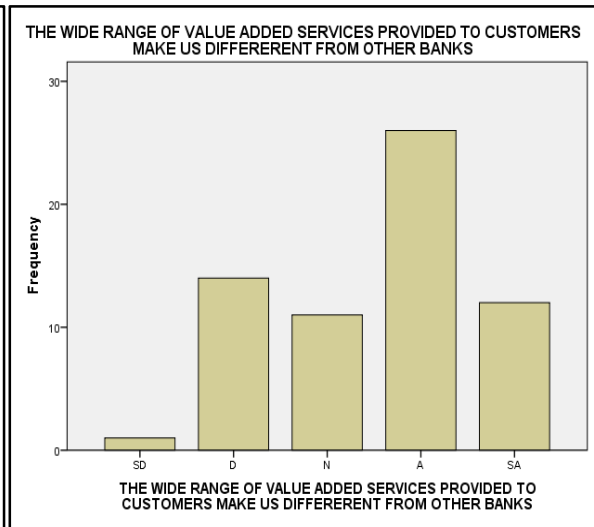


Figure 6

THE WIDE RANGE OF VALUE ADDED SERVICES PROVIDED TO CUSTOMERS MAKE US DIFFERENT FROM OTHER BANKS					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SD	1	1.6	1.6	1.6
	D	14	21.9	21.9	23.4
	N	11	17.2	17.2	40.6
	A	26	40.6	40.6	81.3
	SA	12	18.8	18.8	100.0
	Total	64	100.0	100.0	

Table 7

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 and below	10	15.6	15.6	15.6
	21-30	19	29.7	29.7	45.3
	31-40	8	12.5	12.5	57.8
	41-50	19	29.7	29.7	87.5
	50 and above	8	12.5	12.5	100.0
	Total	64	100.0	100.0	

Table 8

DESCRIPTIVE STATISTICS

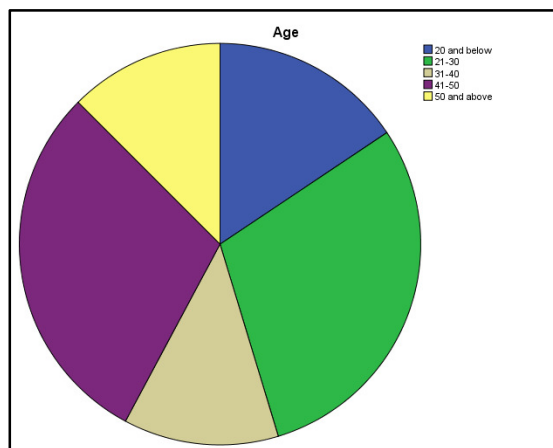


Figure 7

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	38	59.4	59.4	59.4
	FEMALE	26	40.6	40.6	100.0
Total		64	100.0	100.0	

Table 9

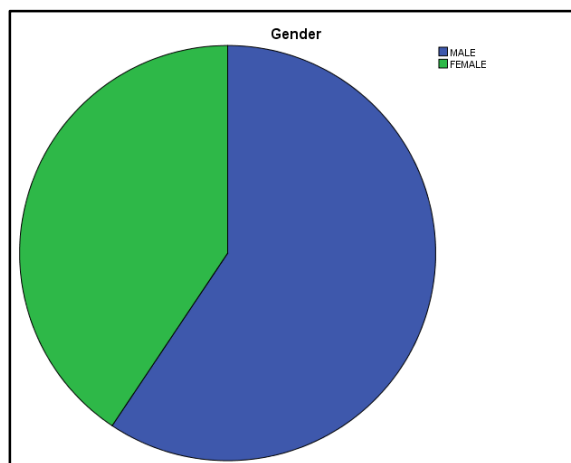


Figure 8

HEQ					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Phd	2	3.1	3.1	3.1
	MSC/MBA	10	15.6	15.6	18.8
	BSC/HND	37	57.8	57.8	76.6
	WAEC/NECO	15	23.4	23.4	100.0
	Total	64	100.0	100.0	

Table 10

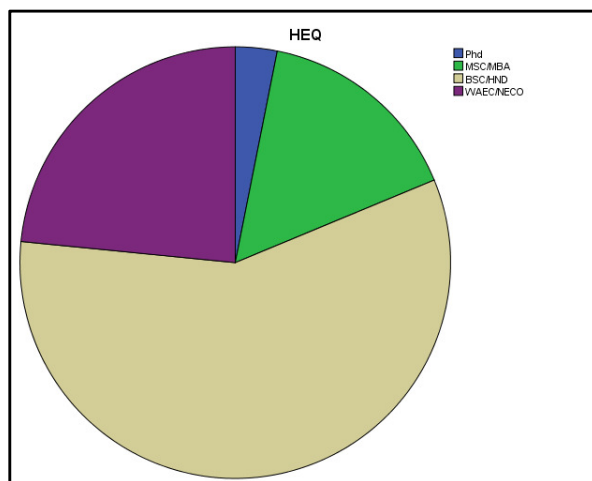


Figure 9

DESIGNATION					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MARKETING MGR	19	29.7	29.7	29.7
	ICT MGR	12	18.8	18.8	48.4
	OPERATIONS MGR	19	29.7	29.7	78.1
	AUDIT MGR	14	21.9	21.9	100.0
	Total	64	100.0	100.0	

Table 10

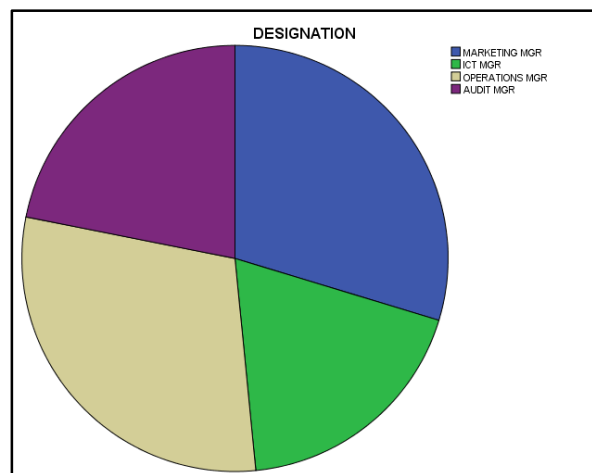


Figure 10

MARITAL STATUS					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SINGLE	17	26.6	26.6	26.6
	MARRIED	29	45.3	45.3	71.9
	DIVOCE	15	23.4	23.4	95.3
	WINDOWED	3	4.7	4.7	100.0
	Total	64	100.0	100.0	

Table 11

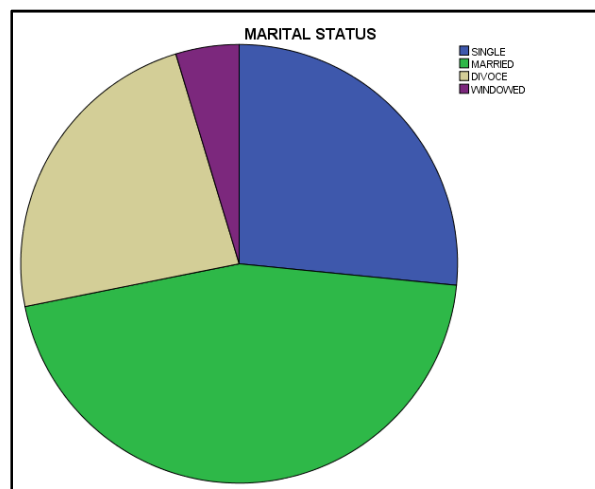


Figure 11

5. Summary, Conclusion and Recommendation

This chapter consisted of summary of the pervious chapter's conclusion, recommendations, implication of the study and suggestions for further studies.

5.1. Summary

Chapter one of this study discussed the background of the study, the scope as well as the statement of the problem which focused on the Adoption of e-banking and firm competitiveness of banks in port Harcourt. This was necessitated by the formulation of research questions and hypothesis to ascertain the relationship between e-banking adoption and firm competitiveness of banks in Port Harcourt, Port Harcourt, Rivers State.

Chapter two reviewed related literature on e-banking adoption and its impacts on banks which unarguably had significantly transformed the banking and financial industry in terms of service/product delivery to the customers.

Chapter three focused on the methodology of the study. It discussed the research design and analysis as well as the validity and reliability of the research instrument which was ascertain through Cronbach Alpha test.

Chapter four, data collected were analyzed and interpreted using tables and pie charts. The analysis was done through the use of statistical package for social science (SPSS) hypothesis were tested.

5.2. Conclusion

From the study, it was concluded that perceived ease of use, compatibility of e-banking enhances firm competitiveness of banks in terms of its personalized service and customer loyalty.

It shows a significant correlation coefficient excising among all variables expect the relationship between perceived ease of use and customer loyalty and well as between compatibility and customer loyalty.

This is the situation where technology acts as a moderating variable. We shall therefore have rejected the null hypothesis which also mean that there is a significant relationship existing between our predictor and criterion variable when technology is a moderating variable.

Also, employed skill and knowledge of Information Technology (IT) significantly influence the relationship between e-banking adoption and firm competitiveness in the banking sector.

5.3. Recommendations

Based on the findings, it was recommended that the design of e-banking technology must be compatible with employee's job responsibilities and the organizations value system.

The component part of e-banking technology system should be design in a manner that banks employees can easily and successfully operate.

Also, Banks employees must be well trained in the use of information Technology to ensure effective and successful implementation of e-banking system in the bank.

Furthermore, banks should highlight corporate policies related to e-banking services in their marketing communication message in order to assure their customers that they are protected while using any form of e-banking system.

In addition, banks that do not have adequate financial resources can partner with others or other electronic outfits to enjoy the services of e-banking platforms.

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