Nigerian Banks Uses of Information and Communication Technology (ICT) and Its Impact on Products and Services: Case Study of Some Selected Banks in Ebonyistate, Nigeria

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Abstract

The study examined Nigerian banks uses of information and communication technology

(ICT) and its impact on their products and services: case study of some selected banks in Ebonyi

State, Nigeria. Through a triangulation method, a total of 16 bank managers were drawn from 16 banks out of the 17 bank managers of Nigeria banks that have branches in the state. Interview and questionnaire were used to gather data. The results obtained demonstrates that ICT has impacted significantly on Banking services, customers profits and the areas that need to be improved upon by the Nigerian Banks were also revealed. The study recommends that it is imperative for bank management to intensify investment in ICT products to facilitate speed, convenience, and accurate services. This is not for any other reason but for them to be more relevant in the 21st century banking system.

Key words

Information Communication Technology (ICT), ICT Compliance, Banking, Banking Services, Banking System, Service Improvement, Nigeria.

Introduction

Ebonyi State is one of the 36 states that make up the federation of Nigeria. The state was created in October I, 1996 with Abakaliki as the capital. As a result of the new status of the area, economic and social development scaled up. The banking sector became one of the most outstanding in the area of development. The accelerated growth of the banking sector in the state was orchestrated by the reforms in the banking industry which led to the recapitalization of twenty five (25) banks and the withdrawing of the licenses of the others that could not meet the bench mark of N25 Billion as capital base (Muoneke, 2000).

The primary objective of the reforms is to guarantee an efficient and sound financial system. The reforms are designed to enable the banking system develop the required resilience to support the economic development of the nation by efficiently performing its functions as the fulcrum of financial intermediation (Lemo in Adeyemi, 2005). This development poses new challenges to the banks as competition stiffened. New strategies, approaches and policies become imperative.

The application of information and communication technologies (ICTS) to bank operations became one of the strategies adopted by many banks in the country to strengthen the industry. Oboh (2005) pointed out the three factors responsible for banks imbibing ICT empowerment of their operations and service delivery. These according to him are:-

· Greater pressure on banks to increase profits and shareholder value.

· Increased focus on cost reduction through improved efficiency in the way banks manage business risks and consequently the use of technologies,

· The need to retain existing and expand the customer base, and maximize profitability.

The above shows that ICT has a great role to play if banking sector is to meet the challenges. Its application has become a subject of fundamental concern and importance to all banks as a perquisite for local and global competitiveness. Alabi (2005) maintains that ICT

will facilitate capital formation and promote economic growth which will enable the industry to operate in a safe and sound environment and information and communication technology (ICT) development has been the major facilitator of increasing the integration of global financial market in the banking system. Oboh (2005) and Adeyemi (2005) have all spoken extensively on the capacity of ICT to facilitate sound economic system in the financial sector of any nation. Agboola (2004) highlights some of the products which the introduction of ICT has promoted in the banking system such as Automated Teller machine (ATM), smart cards, telephone banking, etc. all these have made the industry one of the fastest growing sector of the economy.

In another development Villanculos and Moali (2003) outline the benefits of ICT for banks customers to include, better services and productivity, time saving, stability of the industry and automation of the services. In the same vein, Pennings and Horianto (1992) maintain that banks need quality services for their customers by adopting real-time online system which is a feature of ICT.

In an earlier study by Idowu and Adagunodo (2003) on the effect of ICT on the growth of the banking industry in Nigeria, it was found out that the introduction of ICTs into banking operations, has resulted in the safety of customers deposits and quality services. Similarly, Villanculos and Moali (2003) in their own study found that the use of ICTs in banking system had resulted in faster access to information, improvement in the quality of services, increased speed of work, speed in communication, and improved productivity. Another study by Agboola (2004) on the impact of computer automation on the banking services in Lagos, Nigeria also reveals that electronic banking has tremendously improved the services of some banks to their customers. In the light of the above, there is no doubt that use of ICT by some Nigeria Banks has metamorphosed and affected their operations, products and services. However, it is observed that there is limited research that focuses this very important issue. In a time like this, there is need for study such as this to further strengthen the use of ICT by the Nigeria Banks in order to increase their viability, efficiency and at the same time maximized their profits.

Literature Review

Information and Communications Technology (ICT) is a term that covers all forms of computer and communications equipment and software used to create, store, transmit, interpret, and manipulate information in its various formats (e.g., business, data, voice conversations, still images, motion pictures and multi-media presentation). ICT is a combination of 'Information Technology' and 'Communication Technology'. It merges computing with high speed communications link carrying data, sound and video (Alabi, 2005). Information Technology (IT) deals with the collection, storage, manipulation and transfer of information using electronic means. 'Communication Technology' refers to the physical devices and software that link various computer hardware components and transfer data from one physical location to another (Laudon and Laudon; 2001). Information and communication technologies (ICT) are the computing and communications facilities and features that various banks use to support banking services. On the other hand, Information technology (IT) comprises the knowledge, skills and understanding needed to employ information and communications technologies appropriately, securely and fruitfully in banking, employment and everyday life.

Various Information and Communication Technology devices have emerged to enhance the speed and quality of service delivery and radically change how banking services are being handled worldwide (Agboola and Saluwu, 2008). Shokan (2005) identified Electronic Fund Transfer, Electronic Fund Transfer at Point of Sale, Electronic Cheque. Electronic Letter of Credit, Electronic Card, Debit Card, Electronic Cash, Electronic Billing, Automated Teller Machine. Agboola (2002) summarises ICT products relevant to banks into three groups: Bankers automated clearing services, automated payment system and automated delivery channels. Agboola and Salawu (2008) explained these three groups as follows:

v Bankers Automated Clearing Services:

Automated Clearing Services involve the use of Magnetic Ink Character Reader (MICR) for cheque processing. MICR is a system that provides for encoding of cheques and documents with characters in magnetic ink so that they can be electronically read. MICR is capable of encoding, reading and sorting cheques for timely clearing.

v Automated Payment Systems: Automated Payment Systems include products such as Automatic Teller Machine (ATM), Plastic Cards and Electronic Funds Transfer. ATM is a remote cash dispenser that assists customers to have access to withdrawal outside the banking hall. Electronic cards are microchips that store electronic cash to use for online and off line micro payments. They include credit cards, debt cards, and store value cards. Electronic fund transfer (EFT) is an electronic oriented payment mechanism. That is, an electronic tool that is used to effectively transfer the value of exchange process for goods and services, ideas or information from one bank account to another account in another bank (Shokan, 2005). Electronic Letter of Credit, Electronic Cheque and Electronic Cash fall under automated payment system

v Automated Delivery Channels: These include interactive television and the Internet. They offer an excellent environment for banks to experiment with the delivery of Electronic Home and Office Banking (Bill, 1996). This technology provides for exchange of data between computer applications supporting the process of business partners by using agreed-to, standardized, data format. This device enables customers to carry out transactions with their banks through connection between the customer's terminals in their homes and/or offices and the bank's computer system. VSAT (Very Small Aperture Terminal) is a satellite communications system that serves home and business users. Customers with such terminals are able to contact the bank for any form of information required. Information on bank balances, deposits into and withdrawals from accounts may be gotten through this medium.

Application of ICT is capable of enhancing optimal performance in banking services if appropriately carried out (Agboola and Salawu, 2008). Proper queuing analysis will assist to determine the type, nature, extent and spread of ICT products required in banks. Optimal utilization of facilities might be achieved if the design is done based on clear understanding of how the service is to be measured. Such measurements include arrival rate of customers, service rate, traffic intensity, the average time a customer spends in line, the average time a customer spends in the system, average number of customers in the system and average number of customers in the queue. All these will assist to make decisions on the level at which information and communication technology can be applied for an optimal performance in banking operations.

As earlier pointed out, the importance of application of ICT into banking services in the 21st century cannot be underestimated based on the fact that ICT has turn the whole world into a global village. Despite this, there is limited research focusing this very important phenomenon particularly in a country like Nigeria. The need to make data available from the Nigeria context on the importance of bank compliance with ICT and its impact on their products and services at this moment is highly germane. This information will enable Nigeria banks compete with their counterparts around the world and will assist them to know what banks in developed world are doing to promote their services through ICT. This justifies the conduct of this study in a time like.

Objectives of Study

The study pursued the following objectives.

1. To identify ICT facilities available in banks in the state.

2. To find out ICT – driven services available in these banks

3. To determine the impacts of these ICT facilities on the banks customers services.

4. To find out the effects of ICT on banks customer-base and profit level.

5. To find out areas of improvement on the maximization of ICT in Banks.

Research Questions

The following research questions have been formulated to guide the study.

1. What are the ICT facilities in use by the various banks?

2. What are the banks services that have been affected by the adoption of ICT?

3. What is the impact of ICT on the customers' services in these banks?

4. How has ICT impacted on the customers level and the banks profit level?

5. What is the need improvement to maximize the use of ICT in Banks?

Methodology

The study employed both the qualitative and quantitative methods in its approach. Qualitative research focuses on the qualitative aspects of human nature in order to describe, explain, predict and control behavior. According to Rubin and Babbie (2001), the qualitative method pursues a deeper understanding of the human experience, especially when observations and theories cannot easily be reduced to numbers. Quantitative research employs numbers (statistics) in order to describe the characteristics of the unit of analysis. The research describes variables and the relationship between these variables. Theoretical explanations and concepts are essential in the planning of the research design, since it represents the basis of variables and its interdependency (Neuman, 2003). For the purposes of this study, the researcher examined Nigeria Banks compliance with ICT and its impact on their services. The impact of ICT on the banking services will be highlighted by a qualitative approach, while an understanding of the services which ICT impact was attempted through both qualitative and quantitative.

According to De Vos (2002: 265), the concept of triangulation is sometimes used to designate a combination of qualitative and quantitative methodology. However, they cite Mouton and Marias (1990) who argued that the term triangulation refers mainly to the use of multiple methods of data collection with a view to increase the reliability of observation and not specifically to the combination of qualitative and quantitative approaches. Babie and Mouton (2001:275) explain the advantages of triangulation to include: "overcoming the deficiencies that flow from one investigator and the potential for enhancement of the validity of the study findings". Polit and Hungler (1999:259) buttress this by pointing out that a researcher can be much confident about the validity of the findings when they are supported by multiple and complimentary types of data. Triangulation is used in the study to increase the reliability of information gathered from the bank managers on their bank compliance with ICT and its impact on their products and services at the same time to enhance the validity of the findings of the study.

Design

The study adopted a Case Study research design. However, interview and Questionnaire' are involved to gather information from 17 bank managers selected across Ebonyi State of Nigeria. The term case study means different things to different people, and this is often a source of confusion and misunderstanding (Collis & Hussey, 2003). The case itself may take many forms, although the focus of inquiry is usually small in scale, as not only are case studies frequently characterized by micro level research but are also typically descriptive and qualitative in nature. As an approach to research, case study, however, has much to offer in terms of both theory and practice. The choice of case study in this research is based both on its own nature as well as the specific attributes of the research. Another important reason for employing case study in this research is that it provides a basis for the closer integration of theory and practice. Case study research is considered the most appropriate methodological tradition for use in this study, given that the purpose of the study which emphasises the context of impact of ICT compliance on Nigerian banks products and services. To gather accounts of different realities constructed by bank managers from various environments in the state both qualitative and quantitative methods are drawn upon: questionnaire and face to face interviews were adopted to gather information from the sample of the study.

Based on the above, two data gathering instruments were developed for the purposes of this study: An in-depth interview guideline was developed in order to adhere to the qualitative requirements of the study. In terms of the quantitative component of the study, a questionnaire was utilized. An initial in-depth study of relevant literature on the research topic was undertaken by the researcher. The information that was derived from the literature review on the one hand, and valuable experience gained in practice on the other hand, were combined in order to construct the guidelines for the in-depth interviews. The guidelines were generated by the researcher, pertained to specific questions that were covered during the interviews, and enabled the researcher to maintain standardization throughout. Subsequently, all the respondents were asked the same questions during the interviews. Open-ended questions were employed in order to elicit information about the phenomenon under study, and to provide an opportunity to the respondents for elaboration and freedom of expression. According to De Vos (2002, 302) the guidelines for the semistructured interview "provides the researcher with a set of predetermined questions" and guides the researcher's thinking about the content of the interview that needs to be covered. Rubin and Babbie (2001) indicate that structured strategies to questions are aimed at ensuring that respondents answer the same questions in the same sequence. As a result, the efficiency with which responses can be compared is maximized. In-depth interviews, administered by the researcher in a semi-structured, open-ended manner, were conducted with 16 respondents in separate interview situations. The respondents were adequately oriented towards the purpose and confidentiality of the interviews.

Questionnaire was used to collect preliminary data and later a face to face interview was conducted for all the 16 selected bank managers to gather in-depth information on the impact of ICT on their bank's products and services. The questionnaire items were adapted from the works of Villanculos and Moahi (2003) and Agboola (2001). Response to the questionnaire follows a likert type format of five point rating starting from Strongly Agree = SA to Strongly Disagree = SD.

The items in the questionnaire were in line with the content of what is being measured thereby ensuring the content and the face validity of the instrument. The reliability of the questionnaire was determined via a test-retest reliability method of two weeks intervals. The reliability co-efficient via Cronbach alpha return an $r = 0.87$. This indicates that the instrument is highly reliable and can adequately help to achieve the objectives of the study. The survey included question items to establish whether or not individual bank was using ICT to carry out their day to day banking activities, the types of ICT facilities available in those banks, etc.

Population

The target population of the study is the bank managers of all the banks that have branches in Ebonyi State, Nigeria. There are 25 consolidated banks in Nigeria out of which 17 have their branches in different parts of Ebonyi State. The study was carried out at Abakaliki the State capital where all the 17 banks under study have their main branch offices. Out of the 17 banks, 16 Branch managers were selected. These constitute the population of the study.

Procedure

The questionnaire was administered directly by the researchers on the respondents in their various offices. This was filled and returned the same day to the researchers. The prompt response by the respondents ensured 100% returned of the instrument. At the return of the filled questionnaire by each respondent, an arrangement was made on the time for the face to face interview. Eventually, agreement was reached with each respondent on the time of the interview. The interview exercise covered 16 days, a day for each of the respondent. This was because the selected banks were far from one another.

Just like the questionnaire administration, the interview exercise took place in the respective office of the respondents. Permission was sought from the respondents to allow recording of their responses. This was granted by 15 respondents while one respondent resented arrangement for official reasons. In this regard, the questions asked were based on two themes: impact of ICT

on products and services and improvements that need to be made.

Data analysis

Structured data collected through questionnaire were subjected to percentage and frequency count statistical analysis. On the other hand, interview data were analysed thematically. The first research question was answered by the questionnaire administered while the other three research questions were answer by the interview conducted. The results are presented as follows.

RESULTS

Table 1: ICT FACILITIES AVAILABLE IN THE BANK

FACILITIES	NO OF BANKS
ATM	15
Internet Banking	16
SMS Banking	2
Mobile Banking	2
Computers	16
Telephone Banking	3
E- Banking	3
Online Banking Services	16

As indicated in the table above, all the sixteen banks that took part in the study have ICT facilities like Internet banking, computers, and online banking services. ATM facility was indicated to be available in 15 out the 16 banks. Moreover, telephone banking was available in 3 banks so also e-banking was available in three banks. Other results revealed that SMS banking was available in 2 banks and Mobile banking was as well available in 2 banks. These results suggests that its only three ICT facilities Internet banking, Computers, and online banking that are popularly available in all the participating banks.

Table 2: BENEFITS AVAILABLE TO BANK THROUGH ICT APPLICATION

		SA	A	D	SD
a.	Facilities accurate record keeping	16	01		
b.	facilities convenient business hour	14	03		
c.	Access account at any location	15	02		
d.	Improves quality of service	16	01		
e.	Enhances faster services	16	01		
f.	Increases speed and easy communication	14	03		
g.	Reduces cost of operation	14	02	01	
h.	Improves productivity	13	03	01	
i.	ICT fasters fund transfer	14	03		
j.	Reduces customer complaints	13	03	02	
k.	Enable customers access account any time	12	03	02	
l.	Links together branches	14	03		
m.	Reduces interpersonal relationships	12	03	02	
n.	Increases the number of customers for the bank.	13	02	01	01
o.	Leads to increase in profit margin	14	03		
p.	facilitate inter-banking services	14	03		

Table 2 above contained items on various impact of ICT on banking activities. The results revealed that all the 16 bank managers strongly agreed to all the ICT impact items in the table. This indicates that banks compliance with ICT has impacted on almost every area of banking services in Ebonyi state of Nigeria.

Impact of ICT on Bank Products and Services

Research question 2: What are the banks services that have been affected by the adoption of ICT? To answer this research question respondents were asked to identify the various banks services that have been affected by the adoption of ICT in their banks and to indicate how ICT has affected them. It was indicated by all the respondents that services mostly affected by ICT include customer services in terms of saving and withdrawing. It was explained by some of the respondents that before the introduction of ICT the earlier a customer can finish transaction in the banks was fifteen minutes. Now the longer a customer can wait in the banks is as lower as two to three minutes that is if they are withdrawing through cheques or teller. Customers who does not use cheques for withdrawing money has the option of using ATM which is swifter than using cheques. It was further stated that ICT has now make it easier to get customers statement of account across to them unlike when they have to wait for weeks before getting it by post. Though, statement of account were still posted to customer, however, customers have opportunity of requesting their statement by phone call, email, or requesting for it over the counter; which does not take time before it is provided by computer. It was also gathered that banks nowadays need not to run after customers to recover loan since their mobile phone numbers, email and others are now with the banks. Banks just call such customers reminding them the time for repayment of their dues or debt. It was explained that before, cashier usually spent long hours trying to balance daily transactions in the ledger. This exercise caused some cashier to leave banks as late as 10- 11pm. The introduction of ICT has changed this story. Cahiers now leave banks as soon as banks closed because the technology is now making it easier for them to balance account on time.

Research question 3: What is the impact of ICT on the customers' services in these banks? It was reflected from the interview report that formerly, customers complained of time they remain on queue in the bank before they were attended to. Additionally, they now find it easier to get information about their account and transactions. The flexibility of transaction was also pointed out by the respondents. It was explained that customers can now withdraw in any branch of a particular bank they are using either by Cheques or by ATM. This is also similar to saving. They can now save in any branch of a particular bank they are using. The issue of safety and security was also pointed out. Customers need not carry huge amount of money with them again before they do business. ICT has made it easy for payment to be made to a customer in another location where the business is transacted.

Research question 4: How has ICT impacted on the banks profit level? To answer this research question, respondents were asked to indicate how ICT has impacted banks profit. It was indicated by the 15 out of the 16 managers that their banks profit has drastically increased. Compared to the time everything was manually done. Now banks have more than enough to do business and to lend to customer who seek for loan. The long hour customers have to be on queue before they can be attended to is no more. This now afford banks opportunity of attending to many customers within a short period of time and this has led to increase in the profits by most banks. Part of the statement of emphasis is "ICT now allows us to reach out to many of our customers in both remote and urban area and this has greatly impacted our profits".

Improvement that need to be made

Research question 5: What is the need improvement to maximize the use of ICT in Banks? On this issue, it was emphasized by the respondents that though ICT has impact greatly on banking activities on the part of both the customers and the banks, the fact still remains that not all banks have compliance with ICT. Even among those banks that are now using ICT, not all their workers are skilled in the use of the technologies. Most customers as well do not have the knowledge of how these

technologies work. It is not funny that some customers do not know how to use ATM. More so, some are afraid that ATM open their account to fraudulent people. Based on the foregoing, it was suggested that there is need for more education on the part of banks and the customer to improve their knowledge of ICT. Not these alone, respondents suggest that banks that are yet to posses most of these technologies should try to acquire them. Aside of banks helping their workers who does not have knowledge of ICT, they can as well help their customers. It was explained that they can do this by setting a day of the week to enlighten customer on how they can use what technologies in the banks to transact business.

Discussion

The study examined Nigerian banks uses of information and communication technology (ICT) and its impact on their products and services using selected banks in Ebonyi State, Nigeria. The results obtained have demonstrated that ICT has impacted significantly on Banking services, customers and profits. The areas that need to be improved upon by the Nigerian Banks were also revealed. These findings have been corroborated by previous research results. For instance the study by Idowu and Adagunodo (2003) on the effect of ICT on the growth of the banking industry in Nigeria, reported earlier that the introduction of ICTs into banking operations, has resulted in the safety of customers deposits and quality services. Similarly, Villanculos and Moahi (2003) finding that the use of ICTs in banking system had resulted in faster access to information, improvement in the quality of services, increased speed of work, speed in communication, and improved productivity lend a good credence to the present findings on this study. Another study by Agboola (2004) on the impact of computer automation on the banking services in Lagos also revealed results that support the findings of this study by stating that electronic banking has tremendously improved the services of some banks to their customers.

It is not claimed in this study that Nigeria banks have got there. There is still a long way to go. Going by (Agboola and Salawu, 2008) report, the new generation banks appeared to be more efficient in utilising ICT to enhance performance. The traffic intensities in 50% of the old generation banks where ICT was not efficiently utilised were between 0.89 and 0.95 as against the theoretical limit of 0.80 thus making the queue of infinite length. The traffic intensity for all the new generation banks was less than 0.8. On the average, customers spent 23.01 minutes in the old generation banks as compared to 7.50 in the new generation banks. Similarly, average number of customers in the system in the old generation banks was 8.39 as compared to 2.56 in the new generation banks. In the light of the above, the attention of all Nigerian Banks is hereby drawn to the findings in this study. This is to make them understand that applying ICT to their day to day activities is not only profitable but also rewarding. The report that only new generation banks in the country appeared to be more efficient in the use of ICT to enhance performance is not good enough. Therefore, old generation banks as well need to emulate this gesture. Taking banking activities and banking sector to utmost height should be seen as priority at this digital era. The reason is for Banks in Nigeria and other African countries to be able to compete with the banks in the developed world where the use and application of ICT is being well implemented.

Conclusion

The study concluded that banks should incorporate ICT into their strategic plans for effective performance in payment and delivery systems. Adoption and allocation of ICT should be based on proper analysis to determine the type, nature and extent of products required for effectiveness and efficiency. If at present there is any Nigerian Bank whether new generation or old which as neither implemented nor has plans to implement the application of ICT to their banking operation, the time is now. It is imperative for bank management to intensify investment in ICT products to facilitate speed, convenience, and accurate services. This is not for any other reason but for them to be more relevant in the 21st century banking system.

References

1. Adeyemi, K. S. Bank sector consolidation in Nigeria: Issues and challenges. *Union Digest* 9 (3 & 4); 2005: 31 – 44.

2. Agboola A. A. Information technology, Bank

automation and atitude of workers in Nigerian Banks. *Journal of Social Sciences*, 2004

3. Agboola, A.A. Impact of electronic banking on customer services in Lagos, Nigeria. *Ife Journal of Economics and Finance,* 2002; 5: 24-34.

4. Agboola, A.A.& Salawu, R.O. (2008). Optimizing the use of information and communication technology (ICT) in Nigerian banks. Journal of Internet Banking 13 (1), 2008; 13: 1-15.

5. Alabi, D. *Information technology and e-marketing: Prospect and challenges for marketing practitioners in an emerging economy*; An Unpublished Paper Delivered at the 2005 N Marketing Educator Conference, University of Lagos, Nigeria, 2005.

6. Babbie, E. & Mouton, J. *The practice of social research.* South Africa. Cape Town; Oxford University Press, 2001

7. Bill, G.*Banking on a high-tech future. Chatered institute of bankers*. Bankers Books. Emmanuel House. Burgate Lane, Canterbury, Kent, 1996; 2: 20.

8. De Vos, A.S. *Research grass roots*. Second edition. Pretoria: Van Schaik Publishers; 2000

9. Idowu P. A, and Adagunodo E. R. *The effect of information technology on the growth of the Bank industry in Nigeria, Electronic Journal of Information system in Developing countries.* http://www.Eyisdc.Org/ojs2/index.ph/eyisdc/ (April 17, 2008).

10. Loudon, D.P. & Loudan, J.P. *Management information system organisation and technology in the network enterprises*. 4th ed. U.S. Prentice Hall International, 2001

11. Muoneke, N. D. *This is Ebonyi State: A fact book guide to the salt of the Nation*. Abakaliki: Publicity Bureau, Government House, 2000

12. Neuman, W.L. *Work book for social research methods: Qualititative and quantitative approach.* 5th Ed. Pearson Education, Inc, 2003

13. Oboh, G. A. T. *Developing an ICT- enabled service delivery in the Nigerian Banking industry: Union Bank experience.* Union Digest, 2005; 9: 1 -12.

14. Pennings, J. M. & Horianto, F. (1992). The diffusion of technological innovation in the commercial banking industry. *Strategic Management Journal*, 1992; 13: 29 – 46.

15. Polit, D.F.& Hungler, B.P. *Nursing research: Principle and methods.* 6th ed. New York; Lippincott, 1999.

15. Rubin, A., & Babbie, E. *Research methods in social work* 4th ed. Pacific Grove, CA; Brooks/Cole Publishing Co, 2001.

16. Shokan, O.O. The basic of electronic payment system, *Journal of Chartered Institute of Bankers of Nigeria*, October - December Edition; 2005.

17. Villaculovs F. F. & Moahi. Assessment of the use of information and communication technologies (ICTS) in the financial sector: A case study of the Mozambican banking System. *African Journal of Library, Archives and Information Science, 2003;* 13: 21 – 32.

Appendix
List of Banks Operating in Ebonyi State
1. Intercontinental Bank
2. Access Bank
3. First City Monument Bank
4. United Bank for Africa
5. Spring
6. Fidelity Bank
7. Diamond Bank
8. Oceanic Bank
9. Guaranty Trust Bank
10. Eco Bank
11. Bank PHB
12. Union Bank
13. First Bank Plc
14. First-land Bank Plc
15. Zenith Bank
16. Skye Bank

Appendix II
List of Consolidated Bank in Nigeria
1. Access Bank Plc.
2. Afribank Plc
3. Diamond Bank
4. Eco Bank Nigeria
5. Equatorial Trust Bank
6. First City Monument Bank
7. Fidelity Bank
8. First Bank Plc
9. First Inland Bank
10. Guaranty Trust Bank
11. IBTC-Chartered Bank
12. Intercontinental Bank
13. Nigerian International Bank
14. Oceanic Bank
15. Platinum Bank
16. Skye Bank
17. Spring Bank
18. Stanbic Bank
19. Standard Chartered Bank
20. Sterling Bank
21. United Bank for Africa
22. Union Bank
23. Unity Bank
24. Wema Bank
25. Zenith Bank