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Impact of Information and Communication Technology on Efficient Operational of Banks in Nigeria

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ABSTRACT

Computers and telecommunication system have become very important as delivery systems and productivity tools of electronic data and information. Nigerian banks have now realized that banking today requires prompt delivery of services, efficiency and the ability of customers to be served in any of their branches in any part of the country, without any encumbrance. As a result of this, banks embarked on the use of Integrated banking application that can help them to provide efficient, comprehensive and nation- wide services to their customers, through the use of WANS(wide area networks). The focus of this study is on "The Impact of Information and Communication Technology on efficient operation *of Selected Deposit Money Banks in Anambra State, Nigeria. Survey research design method was adopted in this study to obtain sample opinions of respondents. The Spearman rank order Correlation Coefficient was used to test the hypothesis at 5% level of significance between observed and expected frequency. Some of the major findings were that information and Communication Technology had a positively significant relationship with the operational efficiency and Customer satisfaction of deposit money banks in Anambra state. The recommendations based on the findings were that* ICT services should further be improved to increase the operational efficiency of the DMBs within the banking system.*

Keywords: Information and Communication Technology (ICT), Operational Efficiency, and Service Delivery

1.0 INTRODUCTION

The need for the efficiency and effectiveness of the operations of banks as major players in the country's financial service providers cannot therefore be overstated. Before the advent of information and communication technology, doing business with companies, especially in the financial sector, was difficult and stressful; hence the poor performance of Nigerian banks. Indeed, ICT has positively affected the operations of all banks in Nigeria over the past decade. The key to efficient banking in the future is to maximize the use of ICT. The brave new path of tomorrow's banking is on the electronic highway where the customer is not limited to just one bank in Nigeria, for example, the challenges of information and communication technology coupled with the current competitive environment have led many banks to computerize their operations at an alarming rate . The quality of strategic planning is limited by the quality of information and communication technology (ICT) and the management information system available to decision makers.

Despite the undeniable importance of financial innovation as an explanation of banking performance, it is very frustrating to note that banks are still struggling to meet these two expectations. First, when providing services to customers, it is not uncommon for banks to have long queues, delays in dealing with customers, inability to do things right and a general loss of customer trust in banks. Second, regarding manual banking operations that involve human, brain power and handwriting using tools such as calculators and adding machines. It has many limitations. This manual system involves recording a transaction from one ledger to another without the help of a computer system, the calculation that should be done by computer or technological machines was done manually, which sometimes causes errors due to human error, which increases the calculation time, closing times if accounts are not balanced on time. Finally, how information and communication technology has affected the operations of savings banks and why some banks have not yet adopted this comprehensive concept. Therefore, these led to the interest of this study to investigate information and communication technology (ICT) on the performance of savings banks in Nigeria and also to understand the impact of information and communication technology on their operations to ensure their profitability and growth. The study intends to examine the effect of information and communication technology on the performance of deposit money banks**.** Specifically, the study tends to;

1. To determine whether information and communication technology has any operational efficiency on the deposit money banks.

2. To determine if ICT has improved Customers satisfaction through information and communication technology to their customers.

2.0 REVIEW OF RELATED LITERATURE

When conceptualizing commercial banks, one must also consider the banking sector in general. In Nigeria, financial institutions are divided into two parts, one is the savings bank and the other is the non-savings bank. A commercial bank is subject to deposit banks, although it also performs various other functions such as lending to interested customers who request loans for investment purposes, opening accounts, discounting invoices, etc. Commercial banks can be considered as a financial institution authorized by the regulatory authority to take deposits from the surplus sector, of customers, through loans to deficit sectors that are borrowers and provide other financial services. A commercial bank is a financial institution that offers various financial services, such as accepting deposits and issuing loans. Customers of commercial banks can use various investment products offered by commercial banks, such as savings accounts and certificates of deposit. Loans provided by commercial banks can vary from business loans to home loans (Investopedia, 2017). CBN (2016) further reiterates that commercial banking in an economy where the exchange of cash into bank deposit and the transfer of bank deposit into cash from one person or company to another, the issuance of bank deposit is a bill of exchange, government bonds, the secured or unsecured promise of a company pay back This concept of banking describes the fact that a bank as an organization mainly focuses on collecting temporarily unused money from the general public with the aim of distributing it to others to spend.

2.1 Information and Communication Technology in Nigeria

In Nigeria, the early history of information began with the physical exchange of goods and services in various societies. Just as society differs from place to place and from time to time, the form of Knowledge is as old as man because of its purpose. In the early days of information technology, there was no organization like today's courier industry to regulate information. For communication to take place, both sender and receiver must be aware of the communication process to reach a common point. In other words, communication is the influence of knowledge, knowledge ideas and thinking, i.e. mutual exchange of knowledge and understanding through symbols, signs and language. The purpose of all communication is either to change behavior, to take action and obtain information, or to persuade and ensure understanding. With the help of ICT, marketers can identify more expensive product marketing opportunities and develop a marketing mix to take advantage of the opportunities that come with the development of information technology, which allows business opportunities to offer their customers several options, for example: Banking at home, electronic money transfer system , manage stocks and bonds at home, develop a paperless office.

2.2 Roles of ICT in Banking Sector

The roles of Information and Communication Technology (ICT) in the banking sector were of interest in this study because of its important role in the economy because it stimulates growth by channeling funds to economic actors who need them for productive activities. ICT is a term that largely covers the connection of electronic technology with the information needs of businesses at all levels. ICT has gone beyond the role of support services or simply electronic data processing. Its fields of application are somewhat global and limitless. Its devices, especially the Internet and modern computerized email capabilities, enhanced early mobilization, such as the telephone and the fax machine. Other ICT facilities include: data recognition equipment, factory automation equipment and services, information technology and telephone conference in real time and online system and#40; Adeoti, 2005 and#41;. ICT has completely shaped the landscape and competitive dimension of the banking industry. The ICT system department is known as the MISORIS department of the management information system. They have technically qualified professionals to support the bank in the following critical areas:

End User Technical Support: End users perform much of the bank's computer processing using their desktop computers. When these end users have computer problems, they call the ICT department for technical support. Desktop Management: Managing desktops, laptops and peripherals is a cornerstone of ICT. The task of the department, computer management includes: installation of new hardware components or software, repair and maintenance of software license management equipment. Network management: The ICT department ensures that the computer network is always available with safe and secure information, not only the physical installation of cabling throughout the site, but also the installation and monitoring of firewalls, servers and other equipment. for the network to operate at peak capacity. Voice and data communication: The ICT department manages the telephone and computer system that enables the customer system to communicate with the bank via voicemail, email, faxes, messages, internet and whiteboard.

Brynjolfsson and Hitt (2000) note that ICT significantly affects firm-level performance. They determine that IT capital accounts for 81 percent of the marginal increase in output, while non-IT capital accounts for 6 percent.

2.3 Theoretical Framework

Rogers Diffusion of Innovation Theory

The diffusion and adoption of technical innovations have been explained in several theoretical frameworks. One popular theory is Rogers' Theory of Diffusion of Innovations (RDOL). Diffusion of innovations is a theory that attempts to explain how, why and at what rate new ideas and technology spread. Communication studies professor Everett Rogers popularized the theory in his books The Diffusion of Innovations. The book was first created in 1962 and is now in its fifth edition (2003). According to Rogers (2003), innovation diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. The origins of the spread of innovation theory are diverse and encompass several disciplines. Rogers suggests that five main factors influence the spread of a new idea: the innovation itself, adopters, communication channels, time, and the social system. This process is highly dependent on social capital. An innovation must be widely adopted to be self-sustaining. There is a

point at which innovation reaches critical mass at frame rate. Diffusion means delivering or distributing the news about an innovation to the group it is intended for.

 Simply put, diffusion of innovation refers to the process that occurs when people adopt a new idea, product, practice, philosophy, etc. Rogers mapped this process and emphasized that most of the time the first few are open to and adopt a new idea. As these early innovators spread the word, more and more people are exposed to it, leading to the development of critical mass. Over time, an innovative idea or product spreads through the population until a saturation point is reached. Rogers distinguished five categories of adopters which are innovators, early adopters, early majority, late majority and laggards. Sometimes a sixth group is added: non-adopters. Rogers identified five different innovative properties to explain this puzzle. These characteristics include: traceability, comparative advantage, compatibility, testability and complexity, and according to Rogers, they account for 49 to 87 percent of the variation in adoption across all user categories. These characteristics also provide a valuable checklist for technology project managers to apply when first considering innovative changes.

2.4 Empirical Review

Adesola, Moradeyo and Oyeniyi (2013) conducted a study on the impact of ICT on Nigerian banks: a case study of United Bank for Africa (UBA) plc. This study used a survey research design. The population of this study included the entire workforce of UBA plc while the sample size was fifty (50) respondents randomly selected from ten purposively selected branches in Osun State. The collected data were analyzed by simple regression analysis using SPSS (Statistical Package for Social Sciences) software version 20. The result revealed that the use of ICT significantly affected the speed of banking. Sadeghimaneshi and Samusi (2013) empirically investigated the impact of IT (information technology) on the financial performance of banks listed on the Tehran Stock Exchange. The data obtained from the questionnaires were analyzed by bivariate linear regression test and the results showed that IT dimensions including IT competence, IT operations and IT infrastructures have a significant effect ($pandlt;0.01$) on the financial performance of banks listed in Tehran stock market. The results of the Friedman test also showed that IT infrastructures (mean score = 2.24) ranked number one, IT capabilities (mean score = 2.04) ranked second, and IT functions (mean score = 1.72) ranked third. Abubakar et al 2013) conducted a study on Information and Communication Technology and Banking Performance in Nigeria: A Panel Data Analysis. The data were analyzed using panel unit roots, panel cointegration, FMOLS (Fully Modified Ordinary Least Squares) and GMM (Generalized Listed Method of Moments) to find out the positive impact of ICT on national banking performance. It recommended that the population be aware of the benefits of ICT products in banking in particular and the economy in general. Judith and Patrick (2016) identified a study on the impact of innovation on the performance of commercial banks in Nakuru Central Business District. The base population of the study consisted of 45 Nakuru commercial bank employees of banks using mobile banking, agent banking, internet banking and Banc collateral. The study used a census technique that included all elements of the population, thus the population was 45. Multiple regression analysis was used to test the relationship between banking innovation and financial performance of commercial banks in Kenya. The results showed that the introduction of innovations in commercial banks has a good chance of improving financial results and thus better profits for shareholders. It recommends research in areas such as eldorot, kiphmu, membase to establish a good benchmark and also draw appropriate conclusions. Wasilwa and Omwenga (2016) investigated the impact of ICT strategies on the performance of commercial banks in Kenya: The case of Equity Bank. Correlation analysis was used to provide insight into the relationship between ICT strategies and performance. The results showed that mobile phones had a greater impact than internet services on ICT strategies to influence the operations of commercial banks in Kenya. The study recommends that the management and board of commercial banks continue to explore and implement sustainable business linkages and cooperation with mobile service providers. Dabwor et al. (2017) investigated the impact of information and communication technology (ICT) adoption on banking competitiveness in an emerging economy: The Nigerian experience. The study used both inferential and descriptive designs using a t-test. The findings of the study showed that there is a positive relationship between ICT and banking performance in Nigeria. This means that a marginal change in the level of investment and adoption of ICT in the banking sector, such as ATMs, online transactions and mobile payments, has led to a relative increase in profit levels. The study suggests that it is most important for bank management to invest in ICT products to facilitate speed, convenience and accurate service. Adebola (2018) identified the impact of ICT on the performance of selected banks in Ondo State, Nigeria. The findings indicated that technological innovation has contributed to the performance of the banking sector in Nigeria. It was found that communication technology affected the efficiency of personnel, which contributed to accuracy and speed. In this study, it was found that the use of information communication technology decreased the performance of banks despite all the effects that information communication technology brought to the stakeholders. Mohammed and Yusuf (2018) Exploring the Volatility of Financial Innovation and Industrial Growth: Evidence from the Nigerian Banking Sector. A causal research design was used to analyze data from the Central Bank of Nigeria (CBN) Statistical Bulletin from 1981 to 2016, and causality using the Toda-Yama motto causality test. The results showed that Financial Innovation, the network of bank branches and the increase of bank loans to the private sector significantly reduced the volatility of industrial growth, while the amount of money in circulation worsened. It recommends further research to combine both qualitative and quantitative methods to examine the impact of financial innovation on industry growth volatility. Ekene and Ukpata (2020) investigated the impact of electronic banking on the performance of commercial banks in Nigeria (2000-2017). The study used the Central Bank of Nigeria Statistical Bulletin and another source of data from the National Bureau of Statistics from 2000 to 2017. Using panel regression techniques, the study found that there is a significant relationship between e-banking services and performance from commercial banks in Nigeria. The findings showed that commercial banks are still using the opportunities offered by the electronic banking system in Nigeria. The report recommends that commercial banks increase the integration of Internet banking beyond the current basic level of their operations. Rahman, Mutsuddi, Roy, Al-Amin and Jannit (2020) reviewed performance evaluation of HR ICT applications during the COVID-19 pandemic: a study of the banking sector in Bangladesh. The study is conducted using logical statistical methods to see the excellence of ICT adoption effectiveness in HRM functions.

3.0 METHODOLOGY

3.1 Research Design

The survey research deign is relevant to this study because it enables information to be systematically gathered in a research work and also planners and administrators use the survey research design as a quick and effective means of baseline information for policy decisions especially in the areas of education, population, communication and employment.

This is broken down into methods and sources of data collection, sampling techniques, method and instrument of data analysis.

3.2 Population of the study

The 11 commercial banks staff in Ekwuluobia metropolis constitutes the population parameter of this study. The entire staff 11 commercial banks staff in Ekwuluobia metropolis are too big to capture an approximately over 120 staff. The sampling technique used for the study is Quota approach since all the respondents in the population will not be given equal chance of being selected.

3.3 Sample size Determination

However, judgement approach was applied for the selection of sample size for the 11 commercial banks staff in Ekwuluobia metropolis because the researcher or information collector cannot reach all the 11 commercial banks staff in Ekwuluobia metropolis due to limited time and busy work schedule.

The researcher therefore selected eight (3) departments including operations, counter (cash) and marketing department of the 11 commercial banks staff in Ekwuluobia metropolis of Anambra state for questionnaire distribution.

The population was drawn from the total staff strength of the 11 commercial banks staff in *Ekwuluobia* metropolis which are over 225. However, the population was derived thus;

Table 3.1: Study Population

	Population	Percentage Considered	Study Population
Staff Strength	225	0.427	95.62

Source: Researcher Compilation

3.4 Sources of Data

The data generated for this study were from both primary and secondary sources so as to ensure the sufficiency and reliability of the data needed for this research work.

Questionnaire administration and personal observations of data were used for the study in order to get relevant information that will give credibility to the study. The questionnaire was administered personally by the researcher to the respondents drawn from staff of the 11 commercial banks in Ekwuluobia metropolis, Anambra State.

Primary Data

Primary data were sourced through questionnaire administration. These were unprocessed fact questionnaire obtained from 11 commercial bank staff in Ekwuluobia metropolis.

3.5 Reliability and Validity of Instrument

The questionnaire was validated before administration on respondents. Validation was done to ensure that the instrument measured the quality the research was designed to measure and also to establish the reliability of the instrument. Hence, draft copy of the questionnaire was forwarded to my supervisor after the design for review, correction and approval. The problem of bias was eliminated because the sample was selected randomly. To improve the reliability of the questionnaire, the researcher adopted a test and retest administration. This involves administering the same questionnaire to same group of respondents at different point in time (pilot test).

3.6 Data Analysis Technique

The researcher used a closed type questionnaire. The questionnaire consisted of two parts; Part A collected personal information from respondents and Part B provided a closed questionnaire about the research. The interview survey began with general information about the respondent's age, gender, qualifications and experience. Some questions are divided into parts so that respondents can easily answer the questions. The questionnaire is prepared by dividing it into seven categories, with four questions in each category. The first category includes questions about the information and communication

technology of savings banks. In the second category, there are questions about the efficiency of operations of Savings Banks and the satisfaction of customers of Savings Banks. The material was presented in Parts A and B using a frequency table. Part A of the questionnaire was analyzed by percentage response, part B was analyzed by a 5-point likert scale, and higher was considered acceptable. The options were:

Strongly Agreed   (5 points)

Agreed   (4 points)

Disagree   (3 points)

Strongly disagree   (2 points)

Undecided   (1 point)

The Spearman rank order correlation coefficient was used to test the hypothesis at 5% level of significance between observed and expected frequency.

4.0 DATA PRESENTATION AND ANALYSIS

4.1 Questionnaire Return Rate

A total of 96 questionnaires were administered to the correspondents at 11 commercial banks staff in Ekwuluobia metropolis. Ninety-Six (96) questionnaires were administered to respondents who have a major responsibility with 11 commercial banks staff in Ekwuluobia metropolis. Out of the total of 96 questionnaires administered to respondents, 90 questionnaires constituting 93.8% of total questionnaires administered were returned properly completed by the respondents, the other 6 questionnaires constituting 6.2% were either not returned or were incomplete or mutilated. Thus, the questionnaire return rate of 93.8% is considered adequate. The rate of return of questionnaires by respondents is presented in Table 4.1

Table 4.1: Questionnaire Return Rate for 11 Commercial Banks Staff in Ekwuluobia Metropolis

S/No	Banks	No. of Questionnaires Administered	No. of Questionnaires Returned	% Return
1	Operation Staff	24	24	100
2	Counter Staff	29	24	82.7
3	Marketing Staff	20	19	95
4	Bulk Room staff	23	22	95.6
	Total	**96**	**90**	**93.8**

Source: Field Survey, 2023

A total of 96 questionnaires were administered to respondents who are major stakeholder in the 15 commercial banks staff in Ekwuluobia metropolis with one or two activities in the bank. Out of the total of 96 questionnaires administered to respondents, with Operating staff having 24 respondents (all questionnaire returned), Counter staff 29 respondents (24 returned responses), Marketing staff having 20 respondents (19 returned responses) and the Bulk room staff constituting 23 respondents (22 returned responses). The total returned questionnaire was 90, which constitute our working documents for the study.

4.2 Demographic Characteristics of Respondents

This section deals with the distribution of the respondents according to their demographic characteristics, which include gender (sex), educational qualification, position and length of service. The results are presented in tables 4.2 to 4.5;

Table 4.2: Distribution of the respondents according to their Sex (Gender)

Sex		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	45	50.0	50.0	50.0
	Female	45	50.0	50.0	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.2 reveals that the respondents in the study are even with both male and female respondents constituting 50% each.

Table 4.3: Educational Qualification of Respondents

Educational Qualification		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	O'Level	3	3.3	3.3	3.3
	OND/NCE	22	24.4	24.4	27.7
	BSc/HND	15	16.7	16.7	44.4
	Post Graduate Qualification	50	55.6	55.6	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.3. Reveals that 3.3% of the respondents have only O'level qualifications, 24.4% have OND/NCE qualification, 16.7% have First Degree in BSc/HND qualification, while 55.6% have Post Graduate degree in the entire correspondents' populations.

Table 4.4: Distribution of Respondents According to Position

Position		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Junior Staff	19	21.1	21.1	21.1
	Senior Staff	46	51.1	51.1	72.2
	Contract/IT Staff	25	27.8	27.8	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.4 reveals that majority of respondents in the study are senior staff of the institution with 51% respondents, followed by contract/IT staff who are 27.8% correspondent, while 21.1% of the entire correspondents are junior staff in the study.

Table 4.5: Length of Service of Respondents

Length of Service		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-9 Years	50	55.6	55.6	55.6
	10-15 Years	23	25.6	25.6	81.1
	16 Years and Above	17	18.9	18.9	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.5 reveals that 55.6% of the respondents have stayed in the university community for a period of between zero (0) year to Nine (9) years, 25.6% have stayed for Ten (10) years to Fifteen (15) years while only 18.9% of the respondents have stayed between Sixteen (16) years and above within the commercial banks.

4.2.1 Tabulation of Result and Frequency Analysis

Question One (1): Information and communication technology are utilized within the banks for effective banking purposes.

Table 4.6: Distribution of Respondents for Question One

Electronic Records ICT		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	60	66.7	66.7	66.7
	Agree	30	33.3	33.3	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.6 revealed that: 60 respondents (66.7%) said strongly agree; 30 respondents (33.3%) said Agree, while none mention undecided, disagree or strongly disagree. This signify that all the respondents agree to utilization of ICT within the banking system.

Question Two (2): Banks adopt Information communication technology for organizational purposes.

Table 4.7: Distribution of Respondents for Question Two

Banks Adopt ICT for Administration					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	52	57.8	57.8	57.8
	Agree	35	38.9	38.9	96.7
	Undecided	1	1.1	1.1	97.8
	Disagree	1	1.1	1.1	98.9
	Strongly Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.7 revealed that: 52 respondents (57.8%) said strongly agree; 35 respondents (38.9%) said Agree, while only 1 respondent (1.1%) mention undecided, disagree and strongly disagree respectively. This signifies that all the respondents agree that management adopt ICT for administrative purpose within the banking system.

Question Three (3): The whole sections and segments of the institution are connected into the usage of ICT for operational purposes.

Table 4.8: Distribution of Respondents for Question Three

Connected to ICT Central Unit					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	46	51.1	51.1	51.1
	Agree	40	44.4	44.4	95.6
	Undecided	2	2.2	2.2	97.8
	Disagree	1	1.1	1.1	98.9
	Strongly Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.8 revealed that: 46 respondents (51.1%) said strongly agree; 40 respondents (44.4%) said Agree, while 2 respondents (2.2%)said undecided with only 1 respondent (1.1) said disagree and strongly disagree respectively. This signifies that all the respondents agree that all the segment and section of the bank are connected into a central electronic unit of the banking institution.

Question Four (4): Information and Transactions of the institution are carried out through the use of ICT.

Table 4.9: Distribution of Respondents for Question Four

Infotech filing					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	56	62.2	62.2	62.2
	Agree	31	34.4	34.4	96.7
	Undecided	1	1.1	1.1	97.8
	Disagree	1	1.1	1.1	98.9
	Strongly Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.9 revealed that: 56 respondents (62.2%) said strongly agree; 30 respondents (34.4%) said Agree, while only 1 respondent (1.1%) mention undecided, disagree and strongly disagree respectively. This signify that all the respondents agree that all the records and filing of the institutions are been captured electronically within the banking institution.

Question Five (5): Employees have the right skills and expertise to do their work.

Table 4.10: Distribution of Respondents for Question Five

Employee skills for Electronic Procedure		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	42	46.7	46.7	46.7
	Agree	36	40.0	40.0	86.7
	Undecided	10	11.1	11.1	97.8
	Disagree	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.10 revealed that: 42 respondents (46.7%) said strongly agree; 36 respondents (40%) said Agree, while 10 respondent (11.1%) mention undecided with 2 respondents (2.2%) saying disagree. This signifies that all the respondents agree that Employee skills for electronic procedure are high and aid service delivery within the banking institution.

Question Six (6): There is clear understanding of what work is to be performed by each sector in the bank.

Table 4.11: Distribution of Respondents for Question Six

Clear understanding of the work		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	65	72.2	72.2	72.2
	Agree	22	24.4	24.4	96.7
	Undecided	2	2.2	2.2	98.9
	Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2022

Table 4.11 revealed that: 65 respondents (72.2%) said strongly agree; 22 respondents (24.4%) said Agree, while 2 respondents (2.2%) mention undecided with 1 respondent (1.1%) saying disagree. This signifies that all the respondents agree to have clear understanding of the work which boost service delivery.

Question Seven (7): Bank processes are repeatable to deliver consistent results.

Table 4.12: Distribution of Respondents for Question Seven

Bank Processes boost consistency		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	43	47.8	47.8	47.8
	Agree	31	34.4	34.4	82.2
	Undecided	12	13.3	13.3	95.6
	Disagree	4	4.4	4.4	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.12 revealed that: 43 respondents (47.2%) said strongly agree; 31 respondents (34.4%) said Agree, while 12 respondents (13.3%) mention undecided with 4 respondents (4.4%) saying disagree. This signify that all the respondents agree that Bank processes boost service delivery and consistently within the banking system.

Question Eight (8): Quality of banks' results are well enhanced

Table 4.13: Distribution of Respondents for Question Eight

Quality Of Bank Result		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	44	48.9	48.9	48.9
	Agree	33	36.7	36.7	85.6
	Undecided	11	12.2	12.2	97.8
	Disagree	1	1.1	1.1	98.9
	Strongly Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

In table 4.13, 44 respondents (48.9%) said strongly agree,33 respondents (36.7%) said Agree, while 11 respondents (12.2%)said undecided with only 1 respondent (1.1%) said disagree and strongly disagree respectively. Hence, most respondents agree that the quality of bank result improved within the banking system.

Question Nine (9): Information is complete, clear and relevant to bank customers.

Table 4.14: Distribution of Respondents for Question Nine

Clear Information assessment		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	42	46.7	46.7	46.7
	Agree	36	40.0	40.0	86.7
	Undecided	10	11.1	11.1	97.8
	Disagree	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.14 revealed that: 42 respondents (46.7%) said strongly agree; 36 respondents (40.0%) said Agree, while 10 respondents (11.1%)said undecided with only 2 respondents (2.2%) said disagree. This signifies that most of the respondents agree that dissemination of clear information within the banking system.

Question Ten (10): Bank Customers' are satisfied with the quality of banks' products and services.

Table 4.15: Distribution of Respondents for Question Six

Banks' Result assessment		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	65	72.2	72.2	72.2
	Agree	22	24.4	24.4	96.7
	Undecided	2	2.2	2.2	98.9
	Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.15 revealed that: 65 respondents (72.2%) said strongly agree; 22 respondents (24.4%) said Agree, while 2 respondents (2.2%) said undecided with only 1 respondent (1.1%) said disagree. This signifies that most of the respondents agree that banks assessment showed satisfactory response from customers.

Question Eleven (11): Banks creates opportunities for customers, such as investments.

Table 4.16: Distribution of Respondents for Question Eleven

Banks Induce Investment		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	43	47.8	47.8	47.8
	Agree	29	32.2	32.2	80.0
	Undecided	14	15.6	15.6	95.6
	Disagree	4	4.4	4.4	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

Table 4.16 revealed that:43 respondents (47.8%) said strongly agree; 29 respondents (32.3%) said Agree, while 14 respondents (15.6%)said undecided with only 4 respondents (4.4%) said disagree. This signify that most of the respondents agree that banks create facilities that boost customer investment habits.

Question Twelve (12): Banks creates awareness for individuals through training centers, cybercafé, etc.

Table 4.17: Distribution of Respondents for Question Twelve

Bank Awareness Facilities		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	44	48.9	48.9	48.9
	Agree	36	40.0	40.0	88.9
	Undecided	8	8.9	8.9	97.8
	Disagree	1	1.1	1.1	98.9
	Strongly Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

In table 4.17, 44 respondents (48.9%) said strongly agree,36 respondents (40%) said Agree, while 8 respondents (8.9%)said undecided with only 1 respondent (1.1%) said disagree and strongly disagree respectively. Hence, most respondents agree that banks facilitate training to boost awareness within the banking system.

Question Thirteen (13): There is adequate level of financial control in banks.

Table 4.18: Distribution of Respondents for Question Thirteen

Adequate Financial Control		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	44	48.9	48.9	48.9
	Agree	31	34.4	34.4	83.3
	Undecided	13	14.4	14.4	97.8
	Disagree	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

In table 4.18, 44 respondents (48.9%) said strongly agree,31 respondents (34.4%) said Agree, while 13 respondents (14.4%)said undecided with only 2 respondents (2.2%) said disagree. Hence, most respondents agree that there is adequate financial control within the banking system.

Question Fourteen (14): There is strong labour productivity in banks.

Table 4.19: Distribution of Respondents for Question Fourteen

Productivity Among Staff		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	34	37.8	37.8	37.8
	Agree	44	48.9	48.9	86.7
	Undecided	8	8.9	8.9	95.6
	Disagree	4	4.4	4.4	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

In table 4.19, 34 respondents (37.8%) said strongly agree, 44 respondents (48.9%) said Agree, while 8 respondents (8.9%)said undecided with only 4 respondents (4.4%) said disagree. This prove that most respondents agree that staff are more productive within the banking system.

Question Fifteen (15): Banks generate high returns.

Table 4.20: Distribution of Respondents for Question Fifteen

High Returns		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	60	66.7	66.7	66.7
	Agree	25	27.8	27.8	94.4
	Undecided	5	5.6	5.6	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2022

In table 4.20, 60 respondents (66.7%) said strongly agree,25 respondents (27.8%) said Agree, while 5 respondents (5.6%)said undecided. This prove that all respondents agree thatICT facilitate generations of high returns in the banking system.

Question Sixteen (16): There is provision of security on investments.

Table 4.21: Distribution of Respondents for Question Sixteen

Secure Investment		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	68	75.6	75.6	75.6
	Agree	19	21.1	21.1	96.7
	Undecided	1	1.1	1.1	97.8
	Disagree	1	1.1	1.1	98.9
	Strongly Disagree	1	1.1	1.1	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

In table 4.21, 68 respondents (75.6%) said strongly agree,19 respondents (21.1%) said Agree, while only 1 respondent (1.1%) mention undecided, disagree and strongly disagree respectively. This proves that most of the respondents said that banks ensure secure investment within the banking system.

Question Seventeen (17): There is adequate amount of cash in banks for carrying out their daily activities and operations.

Table 4.22: Distribution of Respondents for Question Seventeen

Daily Activities		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	33	36.7	36.7	36.7
	Agree	45	50.0	50.0	86.7
	Undecided	7	7.8	7.8	94.4
	Disagree	2	2.2	2.2	96.7
	Strongly Disagree	3	3.3	3.3	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

33 respondents (36.7%) said strongly agree,45 respondents (50%) said Agree, while 7(7.8%), 2(2.2%) and 3(3.3%) respondents mention undecided, disagree and strongly disagree respectively as seen in table 4.22. This prove that most of the respondents saidthat the bank house enough cash to meet their daily financial service requirement as a bank.

Question Eighteen (18): Assets of banks and individuals can be easily converted into cash.

Table 4.23: Distribution of Respondents for Question Eighteen

Asset Conversion		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	41	45.6	45.6	45.6
	Agree	25	27.8	27.8	73.3
	Undecided	15	16.7	16.7	90.0
	Disagree	9	10.0	10.0	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

41 respondents (45.6%) said strongly agree, 25 respondents (27.8%) said Agree, while 15(16.7%) and 9(10%) respondents mention undecided and disagree respectively as seen in table 4.23. This prove that most of the respondents saidthat the bank enjoys ease of conversion at any point in time.

Question Nineteen (19): Banks go short of or run out of cash.

Table 4.24: Distribution of Respondents for Question Nineteen

Electronic Service aid Administrative Efficiency		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	37	41.1	41.1	41.1
	Agree	40	44.4	44.4	85.6
	Undecided	13	14.4	14.4	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

37 respondents (41.1%) said strongly agree,40 respondents (44.4%) said Agree, while 13(14.4%) respondents said undecided as seen in table 4.24. This prove that most of the respondents agree that banks also run out of cash and more recently its evident because the withdrawal of old currency for new currency.

Question Twenty (20): Banks can lend when they become illiquid.

Table 4.25: Distribution of Respondents for Question Twenty

Bank Lending		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	23	25.6	25.6	25.6
	Agree	38	42.2	42.2	67.8
	Undecided	21	23.3	23.3	91.1
	Disagree	6	6.7	6.7	97.8
	Strongly Disagree	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

Source: Field Survey, 2023

In table 4.25, 23 respondents (25.6%) said strongly agree,38 respondents (42.2%) said Agree, while 21 respondents (23.3%)said undecided with 6(6.7%) and 2(2.2%) respondents said disagree and strongly disagree respectively. Hence, most respondents agree that banks ensure provision credit during illiquid period.

4.3 Test of Hypotheses

Spearman rank order correlation co-efficient was used to test the relationships between variables under study. The obtained results are shown in table 4.26 to 4.29. Significant relationships have been so indicated.

Hypothesis One

H_{01}: Information and communication technology has no operational efficiency on the performance of deposit money bank.

H_1: Information and communication technology has operational efficiency on the performance of deposit money bank.

Table 4.26: ICT and DMBs Operation Efficiency

Correlations			Banks adopt Information communication technology for organizational purposes	Quality of banks' results are well enhanced
Spearman's rho	Banks adopt Information communication technology for organizational purposes	Correlation Coefficient	1.000	.896**
		Sig. (2-tailed)	.	.000
		N	90	90
	Quality of banks' results are well enhanced	Correlation Coefficient	.896**	1.000
		Sig. (2-tailed)	.000	.
		N	90	90
**. Correlation is significant at the 0.01 level (2-tailed).				

Source: Field Survey, 2023

The correlation coefficient between ICT and DMBs performance was as follows: ($r = 0.896$, $P < 0.05$). This correlation is significant at 0.05 level of significance and the strong relationship shows significant influence of Banks adoption of ICT on Banks operation efficiency at the 11 commercial banks in Ekwuluobia metropolis, Hence, establishing a relationship between the two variables. Consequently, hypothesis (H_{o1}) that states that Information and communication technology has no operational efficiency on the performance of deposit money banks rejected. Therefore, Information and communication technology has significant operational efficiency on the performance of deposit money bank.

Hypothesis Two

H_{02}: Information and communication technology has not improved customers satisfaction rendered by Nigerian banks.

H_2: Information and communication technology has improved customers satisfaction rendered by Nigerian banks.

Table 4.27: ICT and Customer Satisfaction

Correlations			Banks adopt Information communication technology for organizational purposes	Banks creates opportunities for customers
Spearman's rho	Banks adopt Information communication technology for organizational purposes	Correlation Coefficient	1.000	.831[**]
		Sig. (2-tailed)	.	.000
		N	90	90
	Banks creates opportunities for customers	Correlation Coefficient	.831[**]	1.000
		Sig. (2-tailed)	.000	.
		N	90	90
**. Correlation is significant at the 0.01 level (2-tailed).				

Source: Field Survey, 2023

The correlation coefficient between ICT and Customer Satisfaction was as follows: (r = 0.831, P < 0.05). This correlation is significant at 0.05 level of significance and the strong relationship shows significant relationship between the two variables. Consequently, hypothesis (Ho$_1$) that states that Information and communication technology has not improved customers satisfaction rendered by Nigerian banks is rejected. Hence, Information and communication technology has significantly improved customers satisfaction rendered by Nigerian banks.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

In the literature, various studies presented the advantages of information communication technology that improve the general performance of an organization. The introduction of ICT has changed so many service delivery directives such as speed, speed, accuracy, efficiency; efficiency and improvement have been observed in all the organizations and institutions in which they work. However, the study, based on reviews of previous studies, decided to study Ekwuluobia metropolis in Anambra State. The purpose of the study, which divides the performance components of savings banks into operational efficiency, bank liquidity, customer satisfaction and the general performance of the banks, i.e. profit, is to find out how the spin-off of information technology managed to determine bank performance indices. in banking. banking system. .

The results showed that communication technology had a positive and significant effect on all the performance indicators used in the study. The study therefore concludes that communication technology has had a significant impact on the performance of savings banks in Ekwuluobia Metropolis, Anambra State, Nigeria. This position is possible due to the improvement of information and communication technology in the banking system. The ease of service offered by ICT has made that positive impact necessary in the banking sector in general. 5.3 Recommendations

Based on the results of this study, the following recommendations were made;

1. ICT services should be further improved to improve the functioning of DMBs in the banking system.

2. 2. ICT provision should be further encouraged to continuously improve the customer satisfaction of banks in Ekwuluobia metropolis, Anambra State, Nigeria.

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