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**LEVERAGING SERVICE DELIVERY THROUGH ICT. A STUDY OF BANKING INDUSTRIES IN OWERRI, IMO  
STATE, NIGERIA**

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**KeyWords**

Information, Communication, Technology, Management, Service, Internet, Service

**ABSTRACT**

*This work seeks to examine leveraging service delivery through ICT: A study of selected banks in Owerri, Imo state, Nigeria. . In today's competitive markets, customers are the most significant factor in management of businesses and marketing actions because they are able to choose their favourite items among variety of choices and therefore can change the marketing strategies firms have. The general objective of this research is to ascertain whether ICT has any effect on effective customer service delivery in selected banks in Imo state, Nigeria. The specific objective is to examine whether functional bank ATM has contributed to positive customers service delivery in selected banks in Imo state. The researcher adopted one hypothesis which states that there is a significant relationship between functional ATM and positive customer service delivery. This work adopted survey research design. The researcher adopted both the simple random sampling technique and proportionate sampling techniques. The researcher gathered data through primary and secondary sources. Data was presented using simple percentages and tables. Hypothesis was tested using the Chi-square statistical tool. The study found that Significant relationship exists between functional ATM and positive customers service delivery among banks in Imo state, Nigeria.*

**INTRODUCTION**

**Background to the study**

Information and Communication Technology (ICT) is fast becoming a dynamic channel that drives the banking industry and an important catalyst for the growth of our economy as a whole. In today's competitive markets, customers are the most significant factor in management of businesses and marketing actions because they are able to choose their favourite items among variety of choices and therefore can change the marketing strategies firms have. The role of customers is very important to firms and that is why customer relationship management (CRM) is born based on the values customers have. In the competitive business environments, acquiring new customers and customer retention has been shown to be a very important managerial issue, especially in the markets with decreasing rate of acquiring new customers. It is admitted as the first goal of CRM because of its capability in delivering superior value for the firms (from the economical aspect) and customers. Indeed, many firms spend most of their energy, time, and marketing budgets to gain new customers. However, because the cost of acquiring new customers is much more than the cost of retaining existing ones, customer retention is very important to most organizations and banks. The banking industry in Nigeria is facing an increasingly demanding environment as many consumers and businesses become more sophisticated. The availability and usage of adequate ICT skills are important factors, which influence the competitiveness among commercial banks in this era of e-Economy. There are multiple factors which govern the performance of an organization. Of those, ICT has a significant positive impact on the organizational performance which could in turn positively affect quality service delivery . Growth and competitiveness of banks are dependent on the successful application of new technologies which also depends on the availability of skilled labour. There is a qualitative and quantitative imbalance in the supply of skilled labour. It depends on the demographic factors, business cycles and rapid technological advancements taking place around us. Due to the vast development in the area of e-Banking it is

essential that the policy makers should focus on the growing demand in ICT skills and take corrective steps to prepare the required numbers and quality beforehand. E-Banking enables banks and customers to conduct banking business electronically over the Internet where the costs are minimal and it is no longer bound by time or geographical boundary. Most bank branches at present are equipped with main core banking applications supported by a central computer system. In Nigeria, ATM networks are also linked to branches and run on separate software applications. Recently, Banks are also equipped with 'intranets' and internet that enabled them to network its branches to provide or deliver reliable and convenient services to customers. Internet banking or online banking, SMS banking and phone banking are also now being provided as value added services by most banks in the country. Credit card usage is also now becoming popular among customers. Banks are initiating and encourage the use of credit cards and debit cards (ATM cards) among customers to ease the pressure on the tellers in the banks and the banking hall. Banks are spending huge sums of money in acquiring Information Technology (IT) and information communication technology (ICT) competence. They invest huge amounts in foreign currency for hardware, software and soft skills and such sums necessary to train, maintain and retain staff and group of knowledge workers. The banks are improving upon their ICT with the aim to gain a competitive advantage over their competitors; improve the quality of service to customer and facilitate customer care.

Therefore, this work focus on how ICT has brought about effective customers' service delivery systems in the banking sector in Nigeria. Selected commercial banks in Imo state will be our area of focus.

### **Statement of the problem**

Despite the seeming growth of ICT in the world, it seems some organizations in developing countries still have issues in using it to arrive at efficient customers service delivery which could affect the growth of these organizations. Customers are the most important asset of every organization including banks, but it seems that some of these customers are not properly treated as there are long queues both inside and outside the bank which could lead to loss of huge customer data base, some of the customers could even resort to saving their money at home. Therefore, this work will investigate the effects of ICT on customers' service delivery among selected banks in Imo state, Nigeria.

### **Objectives of the study**

The general objective of this research is to ascertain whether ICT have any effect on effective customer service delivery in selected banks in Imo state, Nigeria. The specific objective is:

To examine whether functional bank ATM has contributed to positive customers service delivery in selected banks in Imo state.

### **Hypothesis**

There is a significant relationship between functional ATM and positive customer service delivery.

### **Significance of the study**

This research is of two significance which are; Academic significance and Practical significance

- **Academic Significance**

The academic significance of this work lies in the fact that it will go a long way in assisting researchers in the field of industrial sociology and personnel management.

It will also be a veritable material to both students and lecturers carrying out research in similar area.

- **Practical Significance**

Practically, it will be of immense importance to managers and other categories of staff in the banking industry. It will also be important to strategic policy formulators in the banking industry because it will help them understand how ICT could bring about effective customers service delivery.

The general public and industrialists will benefit exceedingly from the findings of the study.

### **Methodology**

This work adopted survey research design. This is because survey research design sensitizes the researchers to potential problems that were originally unknown.

The researcher purposively selected 5 banks out the numerous banks in Imo state. The selected banks includes: First bank, Polaris bank, Zenith bank First city monument bank and Eco bank. The researcher chose a sample of 352 respondents. The purposive sampling technique was

adopted. Both the primary and secondary sources of data collection techniques were adopted. The questionnaire was administered to the selected respondents in the selected banks in Imo state. Permission and confidentiality of their responses were guaranteed. The questionnaire were made up of two sections. Section A and B. section A consist of demographic data of the respondents, while section B consist of closed ended questions, and the respondents were required to tick "SA" for strongly agree, "A" for agree, "SD" for strongly disagree, and "D" for disagree and open ended questions where the respondents were expected to express their views on the subject matter.

Secondary Sources: the secondary sources of data that aided the possibility of this research were; journals, articles, unpublished PhD thesis and text books. Data were presented using simple percentages and tables, while the hypotheses were tested using the chi-square statistical tool. This is because Chi-square enhances calculation and comprehension. It also gives the opportunity to establish relationship between variables.

Formular for Chi-square

$$\sum \frac{(O - E)^2}{E}$$

O = Observed frequency  
E = Expected frequency  
Σ = Summing over the cells.

### Concept of ICT and Service delivery

Information Communication Technology deals with the Physical devices and software that link various computer hardware components and transfer data from one physical location to another (Willie,2019). According to Mark (2018) Information and Communication Technology (ICT) is the automation of processes, controls, and information production using computers, telecommunications, software's and other gadget that ensure smooth and efficient running of activities. For him, Information and Communication Technology (ICT) has provided self-service facilities from where prospective customers can complete their account opening documents direct online. It assists customers to validate their account numbers and receive instruction on when and how to receive their cheque books, credit and debit cards. Bankole (2018) stated that banking is becoming highly ICT based and because of its inter-sectoral link, it appears to be reaping most of the benefits of revolution in technology, as can be seen by its application to almost all areas of its activities. He further stated that ICT has broadened the scope of banking practices and changed the nature of banking as well as the competitive environment in which they operate. A broad opening has been experienced around the world for banks and they are currently taking due advantage of these innovations to provide improved customer services in the face of competition and faster services that enhance productivity (Senayoun, 2019). For him, implementation of information technology and communication networking has brought revolution in the functioning of the banks and the financial institutions. He further argued that dramatic structural changes are in store for financial services industry as a result of the Internet revolution; others see a continuation of trends already under way. Many banks are making what seem like huge investments in technology to maintain and upgrade their infrastructure, in order not only to provide new electronic information-based services, but also to manage their risk positions and pricing (Agu, 2015). He further stated that new off-the-shelf electronic services such as online retail banking are making it possible for very small institutions to take advantage of new technologies at quite reasonable costs. These developments may ultimately change the competitive landscape in the financial services. A number of studies Francis(2011), George(2016) and Oke(2019) have concluded that ICT has appreciable positive effects on bank productivity, cashiers' work, banking transaction, bank patronage, bank services delivery, customers' services and bank services. They concluded that, these have positive effects on the growth of banking.

### Functional ATM and Positive Customer Service Delivery

Mayowa (2019) is of the opinion that the earliest forms of electronic and communications technologies used were mainly office automation devices. Telephones, For him, telex and facsimile were employed to speed up and make more efficient, the process of servicing clients. For decades, they remained the main information and communication technologies used for transacting bank business (Jude,2019).For him, in the 1980s, as competition intensified and the personal computer (PC) got proletarian, banks began to use them in back-office operations and later tellers used them to service clients. Advancements in computer technology saw the banks networking their branches and operations thereby making the one-branch philosophy a reality. Banks have made extensive use of Information and Communication Technology (ICT) for many years in operations (Fagbemi,2019) He further opined that Information and Communication Technology (ICT) Systems or Electronic delivery channels that have made great impact on the banking activities include ATMs, Bankers Automated clearing service; Telephone banking, personal computer banking, Internet Banking, branch networking and Electronic funds Transfer at Point of Sales. ATM). For him, Automated Teller Machines (ATMs) combines a computer terminal,

record-keeping system and cash vault in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank's computerized records 24 hours a day. Once access is gained, it offers several retail banking services to customers. They are mostly located outside of banks, and are also found at airports, malls, and places far away from the home bank of customers (Ndokuba,2020). He further said that ATMs were introduced first to function as cash dispensing machines. For him, due to advancements in technology, ATMs are able to provide a wide range of services, such as making deposits, funds transfer between two or more accounts and bill payments. Banks tend to utilize this electronic banking device, as all others for competitive advantage. Banks with ATM offerings have them networked and this has increased their utility to customers (Chukwu 2018). For him, combined services of both the Automated and human teller are simply more productive for the bank during banking hours. He further stated that another form of electronic innovation is the Banker's Automated Clearing Services (BACS) which use computers to carryout most financial transactions between banks. For him, these consist of, clearing cheques, paying salaries, payment of standing orders or direct debits. The BACS does its processing by batch processing in which all transactions from the previous day are processed at one time. The processed data is passed between banks on magnetic tapes. Logs are kept of all the transaction. Telephone banking which is popularly known as telebanking can be considered as a form of remote or virtual banking, which is essentially the delivery of branch financial services via telecommunication devices where the bank customers can perform retail banking transactions by dialing a touch-tone telephone or mobile communication unit, which is connected to an automated system of the bank by utilizing Automated Voice Response (AVR) technology". According to Dice (2019) tele banking has numerous benefits for both customers and banks. For him, as far as the customers are concerned, it provides increased convenience, expanded access and significant time saving. According to him, on the other hand, from the banks' perspective, the costs of delivering telephone-based services are substantially lower than those of branch based services. It has almost all the impact on productivity of ATMs, except that it lacks the productivity generated from cash dispensing by the ATMs. For him, It offers retail banking services to customers at their offices/homes as an alternative to going to the bank branch/ATM. He further stated this saves customer's time, and gives more convenience for higher productivity.

#### Data presentation, testing of hypothesis and discussion of findings

**Table I Distribution of Questionnaire**

The above table shows that 325 set of questionnaire were distributed among the 5 selected banks in Imo state, Nigeria. The researcher was able to

S/N	Banks	Questionnaire distributed	%	Questionnaire returned	%
1	First bank	65	20	65	20.1
2	Polaris bank	65	20	63	19.5
3	Zenith bank	65	20	65	20.1
4	Firtst city monument bank	65	20	65	20.1
5	Eco bank	65	20	65	20.1
	Total	325	100	323	100

retrieve 323 questionnaire which eventually form the sample size for the study.

**Table II Sex Distribution of the Respondents**

Sex	No of Respondents	% of Respondents
Male	226	70.0
Female	97	30.0

Total	323	100
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**Table III Age Distribution of the Respondents**

Age	No of Respondents	% of Respondents
20 and above	71	22
26 and above	88	27.2
32 and above	64	19.8
38 and above	61	18.9
44 and above	39	12.1
Total	323	100

**Table IV Marital Status of the Respondents**

Status	No of respondents	Percentage
Single	161	49.8
Married	161	49.8
Divorced	1	0.4
Separated	0	0
Total	323	100

**Table V Level of Education of the Respondents**

Level	No of Respondents	Percentage
Primary (FSLC)	1	0.3
Secondary (WASSCE)	40	12.4
OND/HND	77	23.8
B.Sc	189	58.5
M.Sc	13	4.0
Ph.D	3	0.9
Total	323	100

**Table VI Functional ATM and positive customer service delivery**

	Questions	SA	A	SD	D	Total sample	%
1	Banks in Imo state have enough ATM machines in	16	18	169	154	323	100

	order to satisfy the needs of their customers?	(4.9)	(5.6)	(52.3)	(47.7)		
2	Most of the ATM machines do not function effectively?	15 (4.6)	19 5.9	171 52.9	152 47.0	323	100
3	ATM machines in most banks are outdated and needs to be replaced?	20 6.2	14 4.3	165 51.1	158 48.9	323	100
4	There are much crowd in the bank because their ATM machine is not functioning effectively?	185 57.3	110 34.0	21 6.5	7 2.2	323	100
5	ATM use helps in saving customers time which eventually leads to quality service delivery?	111 34.4	184 57	25 7.7	3 0.9	323	100

**Testing of hypothesis**  
Hypothesis one

states that there is a significant relationship between functional ATM and positive customers service delivery.

To test this hypothesis, the responses of the respondents in item 1, 3 and 4 as represented in table 4.6 were used.

**Table VII Chi-Square analysis for functional ATM and positive customers service delivery**

Items	SA	A	D	SD	Total
1	16	18	169	154	323B1
3	20	14	165	158	323B2
4	185	110	21	7	323B3
Total	221A1	142A2	355A3	319A4	969

Computing formular for chi-square

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

$E_i$

Where  $\sum$  = Summation

O = Observed values

E = Expected values

To obtain the expected frequencies

$$E = \frac{\text{Row total} \times \text{column}}{\text{Grand total}}$$

Grand total

$$\text{Cell } A_1 \quad B_1 \quad \frac{221 \times 323}{969} = 73.7$$

$$\text{Cell } A_2 \quad B_1 \quad \frac{142 \times 323}{969} = 47.3$$

$$\text{Cell } A_3 \quad B_1 \quad = \frac{355 \times 323}{969} = 118.3$$

$$\text{Cell } A_4 \quad B_1 \quad = \frac{319 \times 323}{969} = 106.3$$

$$\text{Cell } A_1 \quad B_2 \quad = \quad \frac{221 \times 323}{969} = 73.7$$

$$\text{Cell } A_2 \quad B_2 \quad = \quad \frac{142 \times 323}{969} = 47.3$$

$$\text{Cell } A_3 \quad B_2 \quad = \quad \frac{355 \times 323}{969} = 118.3$$

$$\text{Cell } A_4 \quad B_2 = 319 \times \frac{323}{969} = 106.3$$

$$\text{Cell } A_1 \quad B_3 \quad = \quad \frac{221 \times 323}{969} = 73.7$$

$$\text{Cell } A_2 \quad B_3 \quad = \quad \frac{142 \times 323}{969} = 47.3$$

$$\text{Cell } A_3 \quad B_3 \quad = \quad \frac{355 \times 323}{969} = 118.3$$

$$\text{Cell } A_4 \quad B_3 = 319 \times \frac{323}{969} = 106.3$$

Placing the observed and expected values in a tabular form, we have;

**Table VIII: Data for functional ATM and positive customers service delivery**

O	E	(O - E)	(O - E) <sup>2</sup> /E
221	73.7	147.7	3.9
142	47.3	94.7	4.0
355	118.3	236.7	3.9
319	106.3	212.7	4.0
221	73.7	147.3	3.9
142	47.3	68.3	2.8
355	118.3	33	0.5
319	106.3	33	0.6
221	77.3	9	0.2
142	47.3	32.7	1.3

355	118.3	22	0.3
319	106.3	21	0.4
Total			25.8

The table above is a 4 x 2 contingency table, hence the degree of freedom.

$$(df) = (C - 1) (R - 1)$$

$$(df) = (4 - 1) (2 - 1)$$

$$df = 3 \times 1 = 3$$

Thus,  $df = 3$

The table value of  $X^2$  at a significance level of 0.05 and degree of 3 = 7.815. The calculated

value of  $X^2 = 25.8$ . Since the calculated value of  $X^2$  is greater than the table value

of  $X^2$ , we therefore accept the alternate hypothesis which states that there is a significant relationship between functional ATM and positive customer service delivery among banks in Imo State, Nigeria.

### Discussion of findings

Based on the research carried out on ICT and service delivery, we found out that:

Significant relationship exists between functional ATM and positive customers service delivery among banks in Imo state, Nigeria. This is in line with Chukwu (2018) that automated and human teller machine are simply more productive and effective for banks.

The study also found that ICT is an effective tool through which service delivery could be delivered. This is in line with Mark (2018) that ICT has provided self-service facilities from where prospective customers can complete their account opening and other banking activities/transaction online.

### Conclusion

Base on the research carried out on leveraging service delivery through ICT: A study of selected banks in Owerri, we conclude that:

ICT is an essential tool in ensuring effective service delivery. Without proper documentation of customers information in banks data base, these customers may be frustrated and vent their anger on the bank. Also, customers are very happy whenever they were attended to on time in the bank, this makes them feel good and have great confidence in the bank. We further conclude that customers prefer to bank with banks with less crowd at their ATM terminals.

### Recommendations

Base on the research findings, we recommend that:

- Banks should improve their methods of attending to customers by embracing total ICT in the bank.
- We also recommend that banks should increase the number of ATM they have in order to help reduce crowd in the bank and serve customers effectively

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