



## Information and Communication Technology in Banking Sector: Nigeria and United Kingdom Comparative Study

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**Abstract:** The advent of Information Communication Technology has changed almost everything we do in life. ICT has become a major tool in banking industries and has had a revolutionary impact on how we live and perceive the world. It has transformed banking industries; this has made it possible for the banking industries to be efficient and effective in the delivery of their services to their customers. In this paper, I review the state of the art on the adoption of ICT in banking industries both in Nigeria and United Kingdom. The research shows that in Nigeria, banks are really moving fast in the adoption of ICT, except in some few areas when compared with that of UK and the problems facing Nigeria banking industries which made them to lag behind in those areas were highlighted.

**Keywords:** ICT, Internet Banking, Telephone banking

### I. INTRODUCTION

Information Communication Technology (ICT) enables people to interact and communicate no matter the distance, also makes it easy for us to obtain goods and services in convenient ways. The world in which we live in today has been changed by ICT. ICT has the potential to transform radically every sector of any country economy. It has transformed UK economy and is penetrating into Nigeria economy, though there are some constraints that is affecting the use of ICT in Nigeria [1]. People around the world have started appreciating the ability of Information and Communications Technology (ICT) to stimulate rapid development in all sectors of the economy. ICT is redefining the way we do almost everything and it is a ready tool for all strata of society. The advent of ICT has really affected banking industries positively. The banking operations have changed beyond recognition since the adoption of ICT in both developed and developing nations. With the use of ICT, customer can stay at home and carry on banking operation right on its table either through the use of Internet or telephone banking. The introduction of ICT in banking sector was dated to 1970 [2] but there was no much effect until early 90s.

ICT are often credited with helping fuel strong growth in the many economies [3]. It seems apparent then that, technological innovation affects not just banking and financial services, but also the direction of an economy and its capacity for continued growth. IT affects financial institutions by easing enquiry, saving time, and improving service delivery [4]. In recent decades, investment in IT by commercial banks has served to streamline operations, improve competitiveness, and increase the variety and quality of services provided. ICT has brought revolution in the functioning of the banks and the financial institutions.

Innovation in banking sector, which is transformation in banking practices [5] as a result of ICT has affected both developed and developing nations of the world. Immediately after the invention of ICT, many organisations and institution have been using it but is more pronounced in

Nigeria banking sector than any other sector. In this paper, I review the state of art, and then compare the adoption and use of ICT in Nigerian banking industries with that of United Kingdom.

### II. ICT IN NIGERIAN BANK

The arrival of ICT has changed the whole world. Before its arrival and application in banking sector, customers need to queue; write cheque and carry money all about but the application of ICT has changed the whole process over night. Banking sector have always been the leader in the use of ICT in any part of the world and Nigeria is not left out. The use of ICT is moving fast in Nigerian banks, though the use of ICT in banking sector started in the late 70s [6] but there are some other sectors in Nigeria that were using it before banks, yet they are still lacking behind in the use of IT. The use of ICT in banking industry is growing fast; there are online banking, Telephone banking, use of ATM, etc. Banks in Nigeria now are nearly at the same level in terms of ICT usage with banks in developed countries of the world such as United Kingdom (UK). I compare the use of ICT banks indicators in selected six banks each, both in Nigeria and UK.

### III. METHODS

This study was carried out both in Nigeria and UK using two research methods on the banks; namely observation methods, personal interview coupled with personal experience in some banks both in UK and Nigeria. In Nigeria, the researcher visited six banks namely First Banks Nigeria PLC, Skye Banks Nigeria PLC, United Bank for Africa(UBA) PLC, Eco Bank PLC, Zenith Bank PLC and Guaranty Trust Bank Nigeria(GTB) PLC. In UK, Lloyds TSB bank, HSC Bank, Natwest Bank, Barclays, Abbey National, and Nationwide were visited. In addition, the websites of all these banks both in UK and Nigeria were visited.

### IV. RESULTS AND DISCUSSION

Table 1 below shows some of the areas where ICT are used in the selected twelve banks both in Nigeria and United

Kingdom. It also summarised the usage in the banking industries of both countries. In this paper, I grouped the use of ICT in Nigeria and UK banks into five which are Computer banking, Cards (ATM, Direct Debit & Credit), Internet banking, Telephone Banking and Direct debit which is discussed accordingly.

#### A. Computer Banking

Computers are being used in all the banks both in Nigeria and UK. In the study, all the banks used both in Nigeria and UK are using computer in their operations as show in Figure 1 below. The use of computer in banking operations are sometimes called Computer banking. The computers are connected together and linked to a central server through computer network. It makes things easy for the bankers to view, update, and modify customer data on the system. It offers quicker rate of inter-branch transactions as the consequence of distance and time are eliminated. Hence, there is more productivity per time period.

With this kind of computer network in the banks, customers are not restricted to withdraw money in the branch where the account is kept but in any part of the country so far it is the branch of the bank. All the banks in UK and Nigeria make use of computer system instead of manual ways of banking as it used to be in Nigeria in the early 90s. They both use computer for their transactions. So, in terms of using Computer for banking transactions and operations, Nigerian banks are at the same level with UK banks. Both countries have 100 percent of Computer usage and adoption as shown in Figure 1 below.

The reason why Nigeria is at the same level with UK is due to that fact that, banks can easily afford to buy computer and fund the computer network and the use of Computer in the bank is internal and it does not always involve non- staff. Though, there are some cases of fraud in Nigeria as a result of this computer banking but is minimised and the advantages are more than disadvantages. Also, the banks that are not using computers in their operations will be losing customers because people would not want to patronise such a bank.

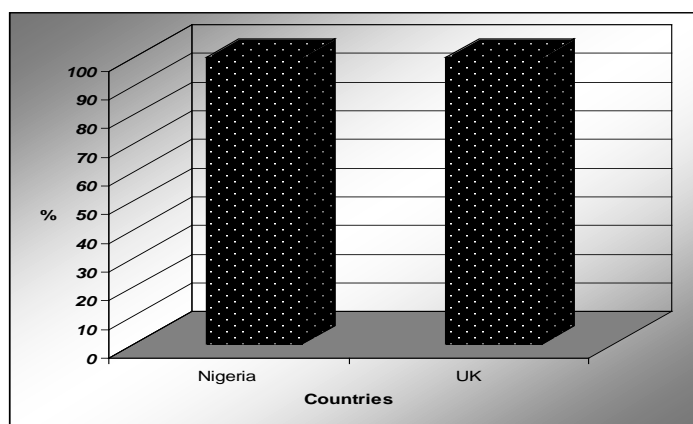


Figure 1: Percentage of Nigeria and UK banks using Computer for Operations

#### B. Cards (ATM, Debit & Credit Card)

Automatic Teller Machines (ATM) card is an online magnetic and PIN protected debit card, which is linked to customer's account. It allows customers have access to their accounts 24/7 in all the branches of the bank ATMs machine free of charge and some cases charges little amount of money.

A Debit Card provides for on-line electronic payment from your savings / current accounts for purchases and access to ATMs (Automatic Teller Machine) for cash withdrawals and enquiries. It can be used both as an ATM card and as a method of payment (instead of cash / cheques) when purchasing goods and services. The Debit Card is a deposit access product where you are using your own money in your bank account through the Debit Card. Whereas the Credit Card is an equivalent of a loan forwarded by the bank whenever you are using it.

Most of the Debit Cards issued by banks are also ATM cards. Hence they are also sometimes called "Debit cum ATM card". While ATM Cards can only be used to access cash, Debit Cards can be used to make purchases at retail shops in the same way Credit Cards are used. Debit Card can be identified by the VISA or MasterCard symbol. An ATM card does not have these symbols.

In Nigeria, interswitch is the one deploying cards and all ATM card can be used on all interswitch branded ATM terminals. In Nigeria, there are few cash Machines in the country; the machines are located in selected areas and some of the machines often have problem. In Nigeria, banks makes use of ATM cards, with the ATM card money can be withdrawn from any bank, though if the bank is not the one that issued the ATM card some amount of money which is less than a dollar will be charged for using the ATM regardless of the amount the ATM holder is collecting from the machine. The use of ATM cards has reduced the risk of carrying cash.

In UK, banks do not have a separate ATM card like that of Nigeria, though, the debit card is being used as an ATM card and as a debit card but in Nigeria, there is no worldwide accepted debit card. Also, in UK, the cash machines are everywhere inside the banks, market places, supermarket and many other places, some charges £1-£2 why majority of the cash machine are free.

Though in UK, the use of credit and debit cards are common immediately a customer opens an account debit card will be issued after a few days, which can be used to withdraw cash and on electronic point of sales. Banks, financial institutions, post office, large supermarkets issue credit card at rate of 10-40% interest per year. The card can be used in stores, supermarket and for online shopping which is not the case in Nigeria. All the banks in UK issue credit card while only 83% of Nigerian banks issue credit card as shown in Figure 2 below. The banks that issue MasterCard often requested for evidence of regular income and or a certain deposit. The card with minimum credit of \$500 to \$10,000 will be issued to such a customer. With time the use of credit card will be common in Nigeria as it is in UK.

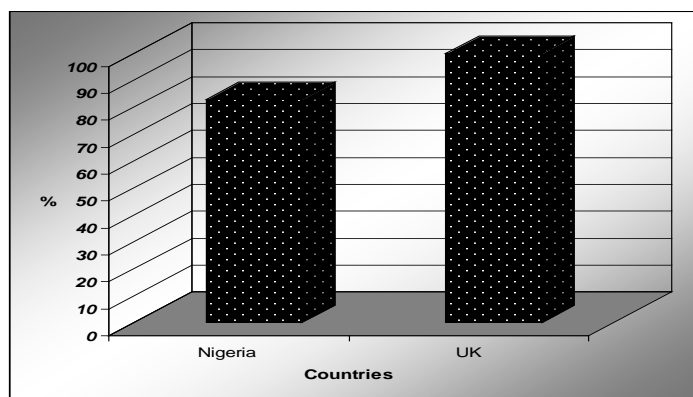


Figure 2: Percentage of Banks issuing Credit card in Nigeria and UK

The reason why the use of credit card is not common in Nigeria is because the banks are afraid of people using it for fraudulent purposes. Before anybody can be issued a credit card in Nigeria, the person must be an executive person with good income or somebody that bank management can easily trap down in case of fraud.

### C. Internet/Online Banking

The idea of Internet banking according to Essinger (1999) is: “to give customers access to their bank accounts via a web site and to enable them enact certain transactions on their account, given compliance with stringent security checks”[7]. To the Federal Reserve Board of Chicago’s Office of the Comptroller of the Currency (OCC) Internet Banking Handbook (2001), Internet Banking is described as “the provision of traditional (banking) services over the internet”.

Internet banking by its nature offers more convenience and flexibility to customers coupled with a virtually absolute control over their banking. Service delivery is informational (informing customers on bank’s products, etc) and transactional (conducting retail banking services).

As an alternative delivery conduit for retail banking, it has all the impact on productivity imputed to Telebanking and PC-Banking. Beside that it is the most cost-efficient technological means of yielding higher productivity. Furthermore, it eliminates the barriers of distance / time and provides continual productivity for the bank to unimaginable distant customers.

In Nigeria, all the banks now provide Internet banking whereby customers can check and print statement of account online. Customer just needs to provide user name and password which is also the case in UK. Figure 3 and Figure 4 show Skye Bank PLC and Lloyds TSB Internet banking web page where Customers can type in user name and password to access Internet Banking respectively. Some banks open online account though the customer has to go with some document later to the bank. This is the case in UK too. After opening account online the system will tell you what you need to take to the bank personally before you can get account details. Overdraft can be applied for through Internet banking in UK which is not possible in Nigeria. Also by the time you open account with the UK bank the system will tell you if you are qualified to get overdraft or not and this depends on how you manage the

account. Also, in UK customer can transfer money from one account to another so far the accounts are in the same bank.

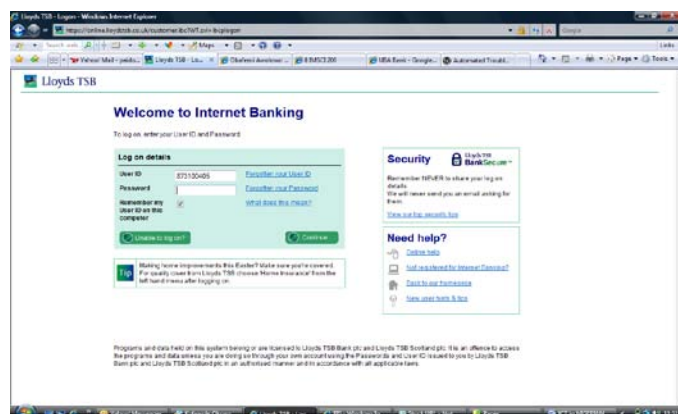


Figure 3: Lloyds TSB Bank Internet Banking Web Page

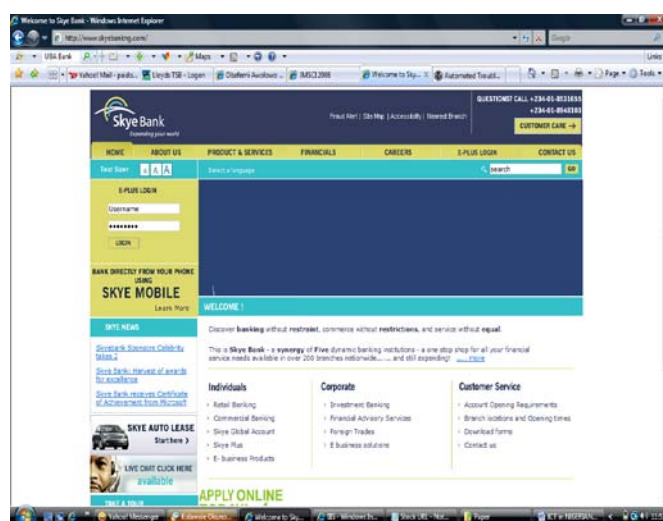


Figure 4: Skye Bank PLC Internet Banking Web Page

Internet banking is the order of the day in any organisation. An organisation without a website to serve as a means of marketing the organisation’s product has not yet arrived. Almost every business man or organisations in UK has websites, so banking sector in this country cannot be left out. Nigerian banking industries are one of the sectors that have high number of websites when compared with other sector. The fact is that banks are able to fund it. Some organisation hosts their website in developed nations because of the problem of electricity supply in Nigeria.

### D. Telephone/Automated Telephone Banking

Telephone banking is 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 dialling a touch-tone telephone or mobile communication unit, which is connected to an automated system of the bank. This type of banking has numerous benefits for both customers and banks. As far as the customers are concerned, it provides increased convenience, expanded access and significant time saving [8].

There is automated telephone banking in UK, it helps the customer to cope with the busy schedule and avoid queuing

up in the banking hall. The issue with it initially is the issue of security. The automated telephone banking is designed to ensure confidentiality of the customer transaction by keying Personal Identification Number (PIN) and Phone Banking Number (PBN).

The Automated telephone number operates in a way that when the customer calls, the system will ask the customer to follow certain instructions and after keying PIN and PBN. It offers money transfer services, application for overdraft, deposit placement, checking of account balance, request for recent transaction details and soon. These services are not available in most banks in Nigeria. GTB, offers this service, but the customer will have to fill a form before he can have access to telephone banking but in UK there is no need to fill any form. So, in Nigeria, there is partial telephone banking and is due to the security reason and problem with telephone system [1].

In UK, sometimes, they record the telephone transaction for record and security reasons but in Nigeria there is nothing like that. Even in Nigeria, it is only mobile phone that is fully in operation; landline phone is almost not in existence.

With telephone banking in UK banks, the following can be achieved by customers:

- Make account enquires
- Order cheque and paying books
- Stop a cheque
- Cancel and amend standing order
- Transfer money between accounts in the same bank
- Etc

In Nigeria, only few banks allows customers to make enquiries about the account and stop cheque after asking for some security questions. Telephone banking may be difficult in Nigeria until the telecommunication industry improve and there is a security measure in place.

#### E. Direct Debit/Standing order

A direct debit is originated by the supplier that supplied the goods/service, through the BACS system (Banker's Automated Clearing Services) the customer having signed the direct debit. The direct debit instructions are usually of a variable amount (this allows the supplier to alter the payments inline with the customers increase/decrease in business). If a payment is missed, the supplier can request the missed payment on a number of occasions. If the payments are continually missed over a period of time, the customer's bank will cancel the direct debit.

A standing order originates from the person/company making the payments 'the account holder'. The account holder's bank set up the instructions on the standing order mandate, as requested by the account holder. The payments are then sent to the bank of the supplier that supplied the goods/service. Only the account holder can change the standing order instructions.

In UK, customer can settle bills by direct debt/standing order, at a particular time in a month the customer will instruct the service provider to deduct certain amount of money from his account, like water, gas, electricity, phone bill, etc. In Nigeria, this direct debt is not available in the banks and this is show in Figure 5 below. In UK, it is

possible to purchase household items, PC, and so on by working into the company and company will be deducting the money from the account monthly with interest, banks in UK offer loan for such services and you do not need to go to bank before you get this type of system, the system in the company will check if such customer is credit worthy and if so give permission to get such services and this is not available in Nigeria. This is due to the fact that, there is no way a person can be easily tracked down in Nigeria, UK is so organised that one can be easily traced.

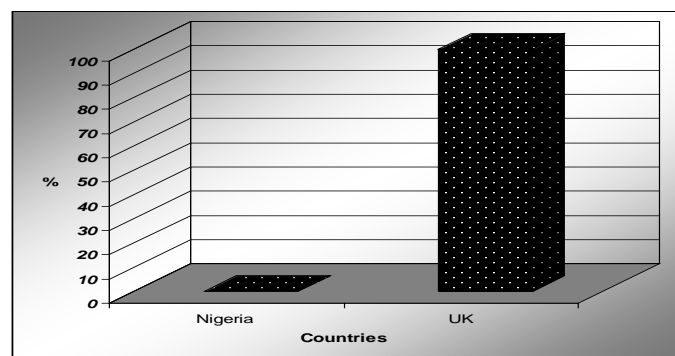


Figure 5: Direct debt and Standing order in Nigeria and UK banks

## V. CONCLUSION

The use of ICT in the banking industry has really changed the life style of the bankers and the customer. With ICT in banking sector, customer can seat back at home and transact business and move money from one account to another without leaving his table so far availability of there is Internet connect and telephone service.

The use of cheque books is becoming unpopular especially in a place like UK where the ICT indicators highlighted in this paper are fully used. Nigeria banks are coming into that level too; some of the barriers facing full adoption and usage of ICT in Nigeria banks are problems of electricity, low rate of Internet penetration and lack of adequate security. If the problems highlighted are addressed, within a short period of time, Banks in Nigeria will be at the same level with those in UK. It is recommended that, Nigerian banks should come together and assist Nigerian government in solving these problems.

## Appendix

BANKS	COMP UTER BANK ING	AT M	DEB IT CAR D	CRE DIT CAR D	INTER NET BANK ING	TEL EPH ONE BAN KING	DIRECT DEBT
First Bank of Nigeria PLC	Yes	Yes	No	Yes(Master Card)	Yes	Partial	No
Skye Bank Nigeria PLC	Yes	Yes	No	No	Yes	Partial	No
United Bank for Africa Nigeria PLC	Yes	Yes	No	Yes(Master Card)	Yes	Partial	No
Eco Bank Nigeria PLC	Yes	Yes	No	Yes(Master Card)	Yes	Partial	No
Zenith Bank Nigeria PLC	Yes	Yes	No	Yes(Master Card)	Yes	Partial	No

				Card)			
Guaranty Trust Bank Nigeria PLC	Yes	Yes	No	Yes (Master Card)	Yes	Partial	No
Lloyds TSB Bank UK	Yes	No	Yes	Yes	Yes	Yes	Yes
HSC Bank UK	Yes	No	Yes	Yes	Yes	Yes	Yes
Natwest Bank UK	Yes	No	Yes	Yes	Yes	Yes	Yes
Barclays Bank UK	Yes	No	Yes	Yes	Yes	Yes	Yes
Abbey National UK	Yes	No	Yes	Yes	Yes	Yes	Yes
Nationwide UK	Yes	No	Yes	Yes	Yes	Yes	Yes

Table 1: ICT indicators in selected banks in Nigeria and UK

## VI. ACKNOWLEDGEMENT

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