CHAPTER TWO

2.0: Literature Review

Much research has been made on role of Electronic Banking on performance of deposit money banks in Nigeria using different methodology and equipment to achieve the desired result. Below are the reviews of some work form by researcher in respect to role of electronic banking on performance of deposit money banks in Nigeria.

According to Oroko A. S. (2022). Electronic banking is the process of conducting banking transaction using electronic devices which may include; Computer Systems, G.S.M.(Global System for mobile communications) Telephones, Automated Teller machine (ATM), Internet facilities OCR (Optical Character Recognition) and Smart Card.

Electronic Banking (e-banking) is about using the infrastructure of the digital age to create opportunities both local and international. The Use of e-banking reduces transaction cost dramatically and eliminates the time and distance barriers as well. Abubakar M, et al (2021).

Computerization and better banking service resulted from the deregulation. Customers' sophistication posed a challenge for the company as they had to compete with new products. Therefore it is hardly surprising that the new generation merchant and commercial banking system which U.B.A is among have realized the advantage associated with processing techniques. These new bank discovered that the evolving technology at the global level could be applied to a more significant advantage In Nigeria financial landscape, Adewoye J. O. (2023).

Access to e-banking is granted only to it users by the bank only after they have verified their Identity, currently personal Identification numbers (PIN) are widely used for Identification purpose. Usually, this involves a set of codes that the person only knows with the account or anyone else who wishes to access the account, permission to perform

financial transactions is immediately granted by the banks" Once this pin is Correct. Siyanbola T. (2019)

2.1: Conceptual Review

A bank's website allows customers to access their account information about it products and services and conduct business with the bank without submitting letters, taxes, Original Signature or telephone Confirmation. Adewoye J. O. (2023).

In the financial and banking sectors, bank's profitability serves as the primary criterion of constancy and reliability, profitability is the different between expenses and revenue during a fixed period, commonly a financial year. Bank need income to grow and expand, and this is essential for them.

Electronic banking, including features like ATMs, POS terminals, internet banking, and mobile banking, has a positive and significant impact on the performance of UBA, One of the major Nigerian bank. This is evident in improved ROA and ROE (Return on Assets and Return on Equity), though it may not significantly affect Earnings per Share (EPS). E-banking enhances operational efficiency, expands customer reach, and provides convenient banking services, ultimately contributing to increased revenue and profitability.

2.1.1 Here's A More Detailed Breakdown of the Impact:

Positive Impacts:

Increased Customer Access: E-banking expands banking services to customers who may not have easy access to physical branches, especially in remote areas or those with limited time.

Operational Efficiency: Automated processes and digital channels streamline banking operations, reducing costs and improving efficiency.

Expanded Revenue Streams: E-banking services, like mobile money transfers and online payments, generate additional revenue for the bank.

Improved Customer Experience: Convenient digital banking platforms enhance customer satisfaction and loyalty, encouraging greater use of bank services.

Enhanced Financial Performance: E-banking contributes to increased profitability, as measured by ROA and ROE, according to Research Gate.

Increased Customer Loyalty: Customers are more likely to remain loyal to banks that offer convenient and efficient digital banking services.

2.1.2 CONSIDERATIONS FOR UBA:

Security Measures: UBA should invest in robust security measures to protect customers from fraudulent activity and ensure the safety of electronic transactions.

Awareness and Adoption: UBA should actively promote and educate customers on the benefits of using e-banking services to encourage broader adoption.

Technology Investment: UBA should continue to invest in technology and innovation to stay ahead of evolving customer needs and emerging Fintech solutions.

Cost-Benefit Analysis: UBA should carefully evaluate the costs and benefits of implementing new e-banking features to ensure they are economically viable and contribute to overall performance.

The USSD code for UBA (United Bank for Africa) is *919#. This code allows customers to perform various banking transactions using their mobile phones, including opening an account, transferring funds, buying airtime, paying bills, and checking their balance.

Key UBA USSD Codes:

*919#: General USSD banking platform.

91900#:: Check account balance.

91920#:: Open a UBA account.

9196#:: Transfer money to other banks, submit BVN.

91914#:: Buy airtime for self or others, subscribe for data.

*91914Phone number#:**: Gift airtime to friends and family.

*91930Amount#:**: Get a cardless withdrawal code.

91928#:: Apply for Click Credit.

2.1.3 Concept of E-Banking Systems

E-banking is the use of electronic signals or information technology to provide banking services, such that banks' customers can consummate certain financial transactions without visiting the bank. The use of e-banking platforms minimizes the use of cash and cheques for payment, and withdrawal slip for cash withdrawals. While e-banking systems do abolish cash transactions, they serve as alternative means of effecting transaction without using physical cash or payment instrument like cheque (Gbanador, 2021). The adoption of e-banking ushered different e-payment channels: online banking, ATM, mobile banking, POS, and NIBSS instant payment amongst others. Online banking is an e-payment system that allows customers to consummate financial transaction via banks' websites. This type of e-banking is performed through the use of a personal computer that has internet access. Online banking system is also known as Internet banking, and allows customers to perform secured banking and financial transactions through the internet. These services are offered without physical interaction between customers and banks' staff. Firms opt for internet banking because it eases consummation of transactions (Gbanador, 2021).

ATM is a computerized telecommunication device that allows banks' customers to access basic teller services outside the banking hall without direct interaction with a banks' teller. Some of the teller services performed with ATM includes cash withdrawal, cash deposit, fund transfer, bills payment, account balance enquiry, account opening etc. Thus, with the ATM, customers can consummate certain financial transactions without visiting the bank

(Gbanador, 2021).

Mobile banking is an e-banking system that allows banks' customers to consummate transactions via a mobile phones and other devices. It is performed using a Smartphone or similar device that is installed with the bank's software. It may also require the customer to do simple biometrics to enable its usage. The customer is usually granted access to consummate transactions via the mobile device after signing in their username and password for authentication. Mobile banking channel require internet access before making transactions. A variant of mobile banking is telebanking which allows customers to perform rudimentary bank transactions via a phone without an internet network. These services are accessed by dialing a designated number or code that is provided by the bank. After dialing the number or code, there will either be a voice prompt or message prompt instructing the customer on the necessary steps required to accessed the banking services. A first time customer will usually be required to create a token or change the default personal identification number (PIN) for security purposes (Gbanador, 2021).

POS is a portable device or machine that enables payment for goods and services using a bank card. In Nigeria, POS is used in supermarkets, petrol stations, boutiques, churches, etc. it is a valid means of payment amongst urban dwellers. As an e-payment system, using POS requires the cardholder to insert a bank card in the machine, input their PIN and the amount to be debited and then click (OK) to effect payment. Once the transaction is completed, the machine will print two copies of receipt, one for the cardholder, and one for the merchant (Gbanador, 2021).

NIBSS instant payment (NIP) is an e-payment system and it is the first and only point to point fund transfer service that guarantees instant value to beneficiaries. This service is majorly offeredvia bank's internet banking, mobile and bank branch platforms for corporate and individuals as well as through the bank's branch network (Essien, 2019).

2.1.4 Performance of Deposit Money Bank

Performance in business describes the health of a firm as an outcome of business

programmes and activities measured against stated objectives or compared to the health of competing firms (Ateke & Akani, 2018).

It is a measure of the extent to which the firm achieves its nominated objectives. Size of bank, quantum of deposit and profitability could be considered reliable indicators of performance (Ibekwe, 2021) for banks. However, performance of DMBs could be viewed from different angles, depending on how well a bank has fared over a specified period of time. Most common performance indicators are volume of deposit, total asset, customer base and profitability.

For the purpose of this study however, DMBs' Total Asset (DMBTA) was adopted as a proxy for performance. DMBTA represents all the assets and resources of a bank that has economic value whose reward is expected in the future.

2.1.5 E-Banking Systems and Banks' Performance

Previous studies on e-banking systems and banks' performance exists in literature; and these studies mostly suggests that e-banking systems enhances different facets of performance of banks.

Eze and Egoro (2016) examined the influence of e-banking on profitability of commercial banks in Nigeria; and reported that e-banking has significant impact on profitability of commercial banks. Similarly, Deekor (2021) assessed e-banking and deposit money bank's performance in Nigeria using quarterly data spanning 2010 to 2018. Net interest margin was used as proxy for banks performance while ATM, POS, mobile banking and web pay were used as proxies for e-banking.

The study found that ATM, POS and web pay do not have significant effect on Net interest margin while mobile banking have a positive and significant relationship with net interest margin. In a related study, Raymond et al. (2022) examined the impact of Net interest margin on Banks'performance in Nigeria within the period of 2009 to 2017. The study

adopted net interest margin to represent performance, while ATM, POS, WB and MB were used as dimensions of e-banking.

The findings via the Johansen cointegration test reveals a long-run relationship between e-banking and Banks' performance in Nigeria. Also, Chukwukaelo et al. (2018) examined effects of information technology adoption on performance DMBs in Nigeria. The study relied on historical data, while ROE was employed as a proxy for performance. POS, internet banking, ATM and mobile banking were used as dimensions of information technology adoption. The findings revealed that the overall effect of e-banking on profitability of DMBs in Nigeria was significant and positive.

In addition, Abubakar (2014) investigated influence of e-banking on growth of DMBs in Nigeria.

The study adopted the secondary data, while multiple regression was utilized to analyze the data.

The findings indicates a positive connection between mobile banking and total deposits, and between internet banking and total asset while on the other hand, no significant relationship was found between internet banking and total deposits, and between mobile banking and total asset. IGrowth of Deposit Money Banks in Nigeria Bank growth is an essential metric because it reflects the bank's ability to attract new customers, increase its loan portfolio, and expand its operations. Banks that experience significant growth are generally considered healthy and profitable, while those that experience a decline in growth may be facing financial difficulties. There are several factors that can influence a bank's growth, including market conditions, economic trends, and competition (Oniore and Okoli, 2019). In a booming economy, banks are likely to experience robust growth as individuals and businesses seek credit to fund their operations. Conversely, during a recession, banks may experience a decline in growth as customers become more cautious and credit becomes less available. Banks can also promote growth through strategic initiatives such as expanding their product offerings, increasing their geographic reach, and improving customer service. For example, a bank that introduces new products such as mobile

banking or invests in digital infrastructure may attract new customers and drive growth (Oniore and Okoli, 2019).

Thus, bank growth is a vital metric for evaluating the financial performance and stability of a bank.

It reflects the bank's ability to attract new customers, increase its loan portfolio, and expand its operations (Amaduche, Adesanya, and Adediji, 2020). Various factors can influence bank growth, including market conditions, economic trends, competition, and strategic initiatives. Banks that experience significant growth are generally considered healthy and profitable, while those that experience a decline in growth may face financial difficulties.

2.1.6 **Effect of Electronic Banking on Bank Growth**

To bridge this gap, banks need to find ways to make electronic services more accessible to customers. This can be achieved through the use of user-friendly interfaces, mobile banking applications, and round-the-clock customer support. It is also important for banks to ensure the accuracy of e-banking transactions, as this helps to build trust with customers and increases their satisfaction levels. Electronic banking has brought about significant changes to the banking industry in Nigeria. One of the most significant benefits of internet banking is its ability to reduce transaction costs. Transactions can be carried out electronically, which means that there is no need for customers to visit a physical branch, reducing the cost of staff and infrastructure.

Furthermore, Electronic banking has improved payment efficiency by enabling customers to make payments with ease, without the need to wait in long queues or fill out paper-based forms. This has helped to save time for both customers and banks, resulting in improved efficiency in the banking system (Amaduche, Adesanya, and Adediji, 2020). Another advantage of internet banking is that it has enabled banks to offer a wider range of financial services to their customers.

Customers can access a range of services, such as online account opening, loan applications, and investment management, from the comfort of their own homes or offices. This has not only increased convenience for customers but has also helped to attract more

customers to banks.

Electronic banking has also helped to improve the bank-customer relationship. Banks can now offer personalized services to their customers based on their individual needs and preferences. For instance, banks can use customer data to offer tailored financial advice and services to customers.

The use of technology in banking has also made it easier for customers to monitor their account activity and ensure the accuracy of their transactions. Customers can view their account balances, transaction history, and receive notifications of any activity on their accounts through mobile banking applications.

2.2 Theoretical Review Innovation Diffusion Theory Innovation Diffusion Theory was propounded by Everett M. Rogers in 1983. The theory is coined from the combination of two words: innovation and diffusion. Innovation refers to an idea, practice or project which is perceived as new for adoption by an individual (Ekechukwu, 2016). Diffusion entails the process with which innovation is passed on through channels over a period of time between the participants in a social system. The four main elements that work together in this process of diffusion of spreading new idea are communication, innovation, time channels & social system (Oniore and Okoli, 2019). These four elements go through the following five major steps:

Knowledge, Persuasion, Decision, Implementation & confirmation.

The main proposition of this theory is that innovation adoption is a process aimed at reducing the uncertainty about the latest technology. Individuals to adopt the new technology need to gather and synthesize information about the technology. Thus, the adopters of an innovation will need to first have the knowledge of the innovation, be persuaded to adopt the innovation, make a decision to either adopt or not, implement the decision and confirm whether the decision made to adopt the technology meets the criteria of compatibility, relative advantage, trial ability, complexity and observability (Rogers, 1983).

The study is related to the Innovation Diffusion Theory based on the criteria of relative

advantage and compatibility. The standard of compatibility is to what level is innovation is seen as been consistent with the existing values, experiences and the needs of potential adopters (Ekechukwu,

2016). Relative advantage is the extent to which an innovation is seen as being more superior to technology before it (Oniore and Okoli, 2019); it requires the adopter to analyze the costs and benefits of adopting a technological change, which can be expressed economically or socially.

Thus, it can be argued from the postulations of the theory that electronic banking is adopted because they help banks keep and enhance the loyalty of their customers, provide opportunity to the banks to increase market share and increase customer satisfaction. Finally, the criterion of relative advantage supposes that e-payment systems are adopted for the reason that they reduce operational and administrative cost of the bank which helps to improve banks' competitive positions in the banking industry. This study theoretically supports the Innovation Diffusion

2.2.1 Theory.

Gambo (2020) examined the effect of technology innovation on financial performance of commercial banks in Nigeria. The study adopted correlational research design, secondary data was collected from all listed Commercial Banks in Nigeria between the periods of 2008 to 2019, also used multiple regression analysis. It was found that ATM has a significant impact on FP, IB has a significant impact on the FB. Nwakoby, Okoye, Ezejiofor, Anukwu and Ihediwa (2020) examined the effect of electronic banking on profitability of banks in Nigeria. The study utilised ex-post facto research design. From a pool comprising 9 deposit money banks in Nigeria and a total of 15 banks listed on the Nigerian Stock Exchange, data spanning from 2009 to 2018 was gathered from the annual reports and accounts of the aforementioned 9 banks, as well as from the CBN Statistical bulletins. The researchers made use of regression analysis to test the hypotheses. The study revealed that the Automated Teller Machine (ATM) payment method has a detrimental impact on the return on equity of deposit money banks in Nigeria, albeit not statistically

significant. Conversely, the Point of Sales (POS) payment method was found to have a positive effect on the return on equity of these banks, with no statistical significance observed. Additionally, the Mobile Banking Payment

(MPAY) method was identified as having a positive and statistically significant effect on the return on equity of deposit money banks in Nigeria. Muotolu and Nwadialo (2019) examined the effect of cashless policy on financial performance of deposit money banks in Nigeria. Ex-post facto research design was used with the aids of secondary dada covering all listed Deposit Money Banks for six (6) years (2012-2017). The period was chosen as the cashless policy took effect in Nigeria in 2012. The data on the e-banking products (ATM transactions, POS transactions. Internet banking transactions, NEFT, and NIP transactions were subjected to analysis through Descriptive Statistical Analysis, Multicollinearity testing, Correlation, and Heteroskedasticity testing. The results indicated that ATM transactions had a positive and noteworthy impact on the return on assets (ROA) of banks in Nigeria. On the other hand, POS transactions (POSV), web transactions (WEBV), NIP transactions (NIPV), and NEFTtransactions (NEFV) were observed to have a positive effect on ROA, albeit not statistically significant, among quoted banks in Nigeria (Muotolu and Nwadialor, 2019).Jumba and Wepukhulu (2019) conducted a study examining the impact of cashless payments on the financial performance of supermarkets in Nairobi County, Kenya. The study used descriptive research on the finance managers of the supermarkets in Nairobi County. The target population comprised of 147 supermarket branches in Nairobi County, for a period of three (3) years (January 2015-December 2017), using Systematic random sampling was used to calculate a sample size of 66 respondents. Linear regression analysis. The results of the analysis were presented in form of tables, graphs and charts, which reveals that financial accessibility, financial innovations, cash handling practices and transactions costs significantly influences financial performance (Jumba and Wepukhulu, 2019).

In 2019, Ogbeide explored the impacts of the cashless policy on financial inclusion within the emerging economy of Nigeria. The ordinary least squares method was employed to

analyze the data and correlation matrix as estimation methods. The study revealed that the cashless policy exhibited a non-significant correlation with financial inclusion in both urban and rural areas of Nigeria. However, it was found to have a significant impact on the increase of customers' deposits in commercial banks across the country (Ogbeide, 2019). Shehu and Idris (2019) examined the performance of cashless economic policy in Nigeria using descriptive Statistics (frequency, percentage, mean and standard deviation) were used to analyze the data using SPSS. Also, Cronbach's' Alpha reliability test was used. It can be concluded that even though cashless policy in Nigeria has not been fully achieved its designed objectives but it is gaining positive outcome as most Nigerians are much aware of the existence of cashless policy tools (Shehu, and Idris, 2019).

Okon and Amaegberi (2018) examined the effect of Mobile banking transactions on bank profitability in Nigeria. Panel unit root and sure model estimation technique were used to conductquantitative analysis for four selected old and new generation banks. Presented significant progress toward understanding the nature of mobile banking and its perceived impact on commercial in Nigeria. Also revealed that in sum, Automated teller machine, point of sale, mobile banking and bank size were positive and statistically significant factors contributing to old andnew generation banks performance in Nigeria compared to other mobile banking indicators (Okon and Amaegberi, 2018).

2.3 Empirical Review

An empirical review on the role of electronic banking on Performance of money deposit banks. Typically focuses on research findings, case studies. Surveys and statistical analysis that provide evidence of the role and effectiveness of electronic banking (e-banking) on performance of Deposit money banks.

ADOPTION OF ELECTRONIC BANKING: Studies have shown that customer of U.B.A have great adoption of e-banking which has influence various factor including customers' trust, ease of use, perceived benefits and technological infrastructure. Technology Acceptance Model (TAM) revealed that perceived ease use and perceived

usefulness significantly impact user's decision to adopt e-banking services. Also, Cultural and Demographic factors and the adoption rate varies by region, demographic Characterize (Age, Income, Education) Research Show that younger individual which are likely educated or not are more likely to adopt e-banking services, especially in urban areas.

IMPACT ON CUSTOMERS CONVENIENCE: It enhanced accessibility e-banking offers 24/7 access to financial services, which significantly enhances customer convenience. Studies Indicate that customer appreciate the ability to perform banking activities anytime anywhere. Also enhanced time efficiency, e-banking reduces the need for physical visits to the bank, saving time and reducing queues in bank premises.

Financial Inclusion:

Access to Banking Services: E-banking especially mobile banking play vital role in increasing financial inclusion, particularly in under banked or rural areas.

Economic Empowerment: Researched has highlighted that e-banking has empower people, particularly women and low Income group by enabling them to access saving accounts, Credit and other financial product.

IMPACT ON BANK PERFORMANCE. Cost Reduction: E-banking service experience reduced operational cost due to automation of routine task. Studies show that e-banking helps banks to cut down an overhead costs, Such as need for physical branches and in person staffs.

Revenue Generation: E-banking also create new revenue streams for banks such as fees for online transactions and enable them to reach a wider customer base.

SECURITY AND FRAUD PREVENTION

Customer Trust and Security Concerns: The issue of security is a major concern for users of e-banking. Studies shows that users are more likely to adopt electronic banking if they feel that their financial transactions are secure and protected from fraud.

IMPACT ON CUSTOMER BEHAVIOUR.

Changing Banking Habits: Research has shown that e-banking influence customer behaviors including the frequency of transactions, types of service used and customer loyalty.

Customer Satisfaction: Research shows that e-banking improves customer satisfaction by offering more personalized services instant access to account information and better communication.

CHALLENGES AND SOLUTIONS OF ELECTRONIC BANKING ON PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

Digital transformation presents exciting opportunities for banks, but it's not without its hurdles. Here's a look at some of the key challenges banks face and potential solutions to overcome them:

Challenge: Legacy Systems

Problem: Banks often rely on outdated core banking systems that are difficult to integrate with new digital technologies.

Solution: A multi-pronged approach can address this. Banks can invest in modernizing core systems, implement APIs to connect legacy systems with new technologies, or adopt a phased approach, migrating functionalities gradually.

Challenge: Cyber security Concerns

Problem: New technologies introduce new vulnerabilities, making cyber security to protect customers a top priority.

Solution: Banks need robust cyber security measures including employee training on cyber threats, regular security audits, and investment in advanced security solutions like intrusion detection and data encryption.

Challenge: Change Management

Problem: Encouraging employees to adopt new technologies and processes can be challenging, leading to resistance and a slow transition.

Solution: Effective change management is crucial. Banks can involve employees in the transformation process, provide comprehensive training, address concerns openly, and incentivize adoption of new technologies.

Challenge: Data Privacy Regulations

Problem: Banks need to comply with data privacy regulations like GDPR and CCPA when leveraging customer data for digital transformation initiatives.

Solution: Transparency is key. Banks should clearly communicate how customer data is used and obtain explicit customer consent before utilizing it for digital transformation projects. Additionally, implementing robust data governance practices ensures responsible data management.

By acknowledging these challenges and implementing appropriate solutions, banks can navigate the digital transformation journey more effectively. This will not only ensure a smoother transition but also unlock the full potential of digital technologies to create a future-proof banking landscape.

2.4: RESEARCH GAP

Many research studies on electronic banking and financial performance of DMBs in Nigeria and other developing economies as revealed by the literature reviewed above. This work differs from others in that it used data for twelve (12) years from 2009 to 2020. Although Okonkwo and Ekueme (2022) used data from 2011-2022(12 years), the study used most recent data than them, taken from 2020 – 2024.