

Digitalized Banking in a Globalized World: A Review of Nigeria's Digital Banking Transformation

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Abstract

In recent years, the Nigerian banking industry has witnessed a profound revolution, driven by digital transformation. Digitalization of the Nigerian banks has brought about new ideas with regards to development and improvement in various areas. This has continued to grow and supplant the conventional banking services to the customers through innovative technologies to meet the developing complex necessities and challenges of globalization. This paper therefore is undertaken to review the transformative journey of the Nigerian banking sector to digitalization, focusing essentially on critical discourse relating to digital banking channels, the associated benefits, challenges and other relevant issues. The paper adopts the exploratory research method, whereby recent scholarly articles, analytical studies and other relevant documented materials on the internet, are reviewed. The paper reveals that ultimately, the digitalization of the Nigerian banking industry has significant implications for its overall dynamics, with its associated benefits and challenges. The paper concludes that digitalization has made banking transactions easier and faster, though not without challenges, key among which include the issue of cybersecurity threat. The paper among other things, recommends that banks should continuously prioritize the adoption of effective and robust cybersecurity measures, leveraging adequate investment both in cybersecurity devices and human resource development programmes for employees, in order to strengthen customers' data privacy and safeguard customers' financial transactions.

Keywords: Banking Transformation, Digital Banking, Digitalized Banking, Globalization, Globalized World.

Introduction

Businesses all over the world are conscious of the rapid developments in digital technologies, and banks are known to be at the forefront of digitalization globally. Digitalization has transformed both the business processes and the way of doing business in banking as in all sectors by making use of the opportunities of technology (Iwedi, et al., 2022). The banking industry has witnessed a profound revolution driven by digital transformation. Digital transformation in the banking sector encompasses various technological innovations and strategic shifts to improve operational efficiency, enhance customer engagement, and remain competitive in a rapidly evolving financial landscape (Rha & Lee, 2022).

Digitalization of banking services is the delivering of banking services primarily through electronic channels instead of physical branches. This does not automatically preclude digital banks from having a physical presence where they can operate from. It involves the integration of digital technologies into all aspects of banking operations, from customer service to back-office functions (Lottu et al., 2023)

Digitalization has twofold purpose with respect to banking industry; it facilitates the service offering to customers through electronic channels such as Automated Teller Machine (ATM), Website, POS, and reduces their cost to serve through the reduction in the number of staff and business locations (Awoniyi, 2022). Digital channels such as the Automated Teller Machines (ATMs), Point-of-Sales (POS) terminals, Mobile Banking and Internet Banking, among others, have significantly improved the service delivery by banks such that bank customers carry out banking transactions beyond normal banking hours and geographical boundaries.

Prior to the digital transformation, banking operation was characterized by travelling long distances to go to bank, waiting for the bank working hours to carry out any bank work, visiting the bank for each and every transaction and keeping track of account history through all paper statements (Iwedi, et al., 2022). Digital banking is essentially the result of digital change in the globalized world. Globalization is the most challenging development in the world history today. Globalization affects virtually all the industries and the banking industry is no exception. Globalization has revolutionized the banking industry in Nigeria. The increase in the use of the internet has become widespread, even as the change in the way data are collected have increased the expectations and demands of the new generation who are technology compliant as well as the old bank customers who have adopted these technologies. In sum, service expectations are directed toward faster, better quality, and less costly technology-based channels and services products (Balkan, 2021). Customer-centric banks have moved away from slow and stressful analogue operations to faster, more convenient and stress-free digital operations so as to be visible and connect with customers who are largely dwelling in the digital world.

In recent years, the financial services sector in Nigeria, predominantly banking institutions, have witnessed revolution in digitalization which has informed improvement in mobile and internet banking. Information and communication technology has taken banking beyond the arm-chair, brick and mortar operations to a realm where customers make transactions from the comfort of their homes by a push of the button. A digitally transformed banking sector tends to boost economic prosperity by facilitating investment, entrepreneurship, and business expansion.

Digitalization of the Nigerian banks has brought about new models in businesses, that is new ideas with regards to development and improvement in various areas, from mobile banking to financial transactions and internet banking. This has continued to grow and supplant the conventional banking services to the customers through innovative

technologies to meet the developing complex necessities and challenges of globalization (Mayowa et al., 2019).

However, despite its obvious and profound benefits, many people believe that the trend of digitalization of banking services in Nigeria, which is essentially technology-driven, has not come without its own challenges. It is therefore pertinent to undertake a critical discourse on these issues, to further enrich the available literature on the subject-matter.

Essentially, this paper aims to achieve the following:

- To undertake a review of the transformative journey of the Nigerian banking sector to digitalization viz-a-viz the changing global digital landscape.
- To assess the current trend of digitalization of banking in Nigeria and its associated benefits and inherent challenges.
- To provide recommendations to banks in Nigeria on maximizing the benefits of digitalization as well as navigating its challenges.

To achieve these objectives, the paper adopted the exploratory research method, whereby scholarly articles, analytical studies and other relevant documented materials on the internet, were reviewed.

Conceptual Review

Conceptualizing Digitalization and Digital Banking

Digitalization is the process of integrating digital technologies into firms' operations (Enebeli-Uzor, 2024). Banking digitalization is therefore the transformation in the technological infrastructure used by banking institutions at both front and back office. The ultimate goal of digitalization programmes in a traditional bank is to transform the bank to a digitalized bank (or 'digital bank'). A digitalized bank is expected to have digitally transformed most of the processes driving its activities from the back-end to the front-end (LIGS University, 2024). While digitalization provides banks with a cost advantage, it is reflected to the customer as better customer experience, more usable and less costly products (Balkan, 2021).

Digital banking can provide services that are less costly, more convenient, and contain fewer errors. Digital banking is the buzz word which is referred to as electronic banking. It is identified as the process or form of delivering banking services and products through different electronic platforms to the customers (Awoniyi, 2022). Digital banking includes provision of opportunities in the digital age through infrastructure (Adewolo, 2015).

Digital banking can also be described as the digitalization of all traditional banking activities that were historically available to customers when physically inside of a bank branch. This includes activities like money deposits, withdrawals, and transfers, checking/saving account management, loan management, bills payment and account services (Don, 2016). A bank needs to adopt a Digital Transformation Framework (DTF) that guarantees a comprehensive transformation of its value creation paths, putting into consideration the

harmonization of four dimensions – changes in value creation, use of technologies, structural adjustments and financial aspect of the business (Vial, 2019).

The Concept of Globalization

Globalization encompasses opening up borders and the transcendence of the political, environmental, social, technological and economic phenomenon to increase the relationship between and among nations for the purpose of better economic and social wellbeing of the citizens (Okpalaobi, 2014). Globalization constitutes a multiplicity of linkage and inter connections that transcend the nation states (and by implication the societies) which make up the modern world system. It defines a process through which even, decisions and activities in one part of the world have a significant consequence for individuals and communities in quite distant part of the globe (Emmanuel, 2016).

Globalization redefines the relationship between territoriality and authority. Shifting authority from the level of the state to super national and sub-national units. Globalization has contributed immensely to the integration of the financial sectors across the globe. For example, globalization has brought about new business models solved global financial challenges and introduced new perspectives to removing barriers to international banking (Ogundele et al., 2021).

The traditional banking services have been displaced with modern technologies to match the demands of globalization (Gabor, 2016). The globalization of the Nigerian banks was facilitated by the advancement in Information and Communication Technology. Other elements that contribute to the globalization of the banking industry are the emergence of new business models, the emergence of global challenges to banking and the emergence of new competitors (Ukah & Nwanne, 2021)

The Nigerian Banking Evolution and its Historical Journey to Digitalization

The Nigerian banking history is traceable to the early 20th century during the British colonial period. The African Banking Corporation, which opened its doors in Lagos in 1892, primarily to serve the colonial government and expatriate businesses, was the first bank to operate in Nigeria. However, this bank was soon taken over by the Bank of British West Africa (BBWA) in 1894 due to the challenges it faced, and this marked the beginning of modern banking in Nigeria. The BBWA, now known as First Bank of Nigeria, laid the foundational structures for banking in the country, focusing on trade finance and catering to the colonial economy's needs.

Driven by the growing nationalist sentiment and the desire for economic independence, the mid-20th century saw the emergence of indigenous banks, which were established by Nigerian entrepreneurs to serve the local population that had been largely neglected by the colonial banks. The banking sector entered a new phase characterized by expansion and increased government involvement, following Nigeria's independence in 1960. The Central Bank of Nigeria (CBN) was established in 1958, becoming fully operational in 1960, to serve as the country's monetary authority and regulator of the banking sector. Due to liberal

licensing policies and economic boom periods, the 1970s and 1980s witnessed a proliferation of banks. However, this rapid growth was not without its problems, leading to financial instability and bank failures.

In the late 1980s and 1990s, the Nigerian government and the CBN implemented several reforms aimed at enhancing regulatory oversight, ensuring financial stability, and promoting transparency and accountability in the banking sector. The main focus of these reforms was to ensure a more stable and robust banking system. Until the early 2000s, banks and other financial institutions relied on manual processes and paperwork to facilitate local and international transactions, no matter how complex they may be (Atoyebi, 2024)

Suffice it to say that historically, the Nigerian banking industry has been characterized by traditional banking practices, including brick-and-mortar branches, manual transactions, and paper-based record-keeping. However, the dawn of the digital era has ushered in a new paradigm in banking, challenging traditional norms and reshaping the industry's dynamics (Lottu et al., 2023). The dawn of the 21st century has ushered in the most transformative era in the history of Nigerian banking, marked by the advent of digital technology. Nigerian banks have been at the forefront of adopting information and communication technology (ICT) to improve service delivery and extend banking services to the unbanked and underbanked populations.

Digital banking has gained significant traction in Nigeria, revolutionizing the traditional banking landscape. With the advent of technology and internet penetration, digital banking has become increasingly popular among Nigerians. The introduction of online banking, mobile banking, and digital payment platforms has revolutionized the way Nigerians access and use financial services. The convenience and accessibility offered by digital banking have transformed the way individuals and businesses conduct financial transactions. Moreover, the rise of FinTech companies in Nigeria has spurred innovation and competition in the banking sector, leading to the development of new financial products and services tailored to the needs of a diverse customer base.

This digital revolution has not only enhanced financial inclusion but has also positioned Nigeria as a leading player in the FinTech space in Africa. Nigeria was recently named Africa's digital payments leader, and the country's banking sector is also the most digitized in the continent. According to a 2022 press release, Nigeria recorded 3.7 billion real-time payments in 2021, earning the sixth spot among countries with the biggest real-time payments markets (Atoyebi, 2024). Nigeria's digital banking sector is expected to experience unprecedented growth in the coming years, as the government strengthens its drive to develop the country's technological infrastructure (Atoyebi, 2024).

Digital Banking and Financial Inclusion in Nigeria

Financial inclusion refers to efforts to enable all individuals and companies to access financial products and services irrespective of personal income or net value. This is aimed at eliminating barriers that exclude people from financial sector involvement and removing

barriers that discourage their use of these services for their livelihoods (Ezeocha, 2024). The importance of financial inclusion to a country like Nigeria cannot be over emphasized. Realizing this, on October 23, 2012, the Central Bank of Nigeria (CBN) launched the National Financial Inclusion Strategy. In 2018, the CBN issued a Revised Strategy aimed at further reducing the exclusion rate of the unbanked to 20% by 2020 (Olajide, 2021).

Affordable financial services obtained via the help of digitalization have helped in poverty alleviation and improved the wellbeing of the citizens. Evans (2018) documented that developed countries have higher access to finance than developing countries solely because of advanced technology which plays a considerable role in reducing financial exclusion. Digitalization also contributes in reaching out to the poor on time and provides access to less expensive information and better connectivity through mobile-banking, internet banking and automated teller machine services. The population who benefits from the modulating effect of digitalization through mobile phone penetration are the underprivileged in rural populations which help in poverty alleviation and societal inclusion (Warren, 2007).

Digital transformation of the financial services industry facilitates increased broadband penetration, which promotes financial services delivery in rural areas, provides consumers with bespoke services (digital banking, mobile lending and savings), promotes access to credit for small and medium-sized enterprises (SMEs), leads to increased efficiency of traditional financial institutions and, more fundamentally, drives financial inclusion (Olajide, 2021). Accordingly, the digitalization of banking services in Nigeria has expanded the reach of banking services to populations previously excluded from the formal financial system. Mobile banking and digital payment options have proven instrumental in bridging the gap. In regions where physical bank branches are scarce, digital banking services have become lifelines, offering unbanked and underbanked individuals' access to savings accounts, payment services, and credit opportunities.

As noted by Enebeli (2024), digitalization promotes financial inclusion by expanding access to financial products and services for previously unbanked segments of the population. This expansion is driven by the increasing number of Nigerians participating in web payments, mobile banking, and digital wallets.

The Central Bank of Nigeria has implemented regulations to promote digital transformation and ultimately financial inclusion in Nigeria. One of these interventions include the introduction of agent banking and payment service banks which leverage technological solutions to provide easier and quicker access to banking solutions, and accelerate financial inclusion in rural areas. Financial inclusion is a huge task and digitalization in banking is only one of the drivers for achieving this.

Digital Banking Channels and Platforms in Nigeria

Internet/Online Banking

Internet or online banking is a digital banking platform that rides on internet to enable customers carry out their banking transactions (Awoniyi, 2022). Internet banking is defined

as the use of the Internet to deliver banking activities such as funds transfer, paying bills, viewing current and savings account balance, paying mortgages and purchasing financial instruments and certificates of deposits (Ahasanul et al., 2009). Internet banking is described as the provision of traditional banking service over the internet. It gives customers access to their bank accounts through a website. Internet banking also enables the customers to carry out certain transactions on their accounts with stringent security checks. Internet banking offers more convenience and flexibility to customers with absolute control over their banking activities.

As an alternative delivery medium of retail banking, internet banking has all the impact on productivity of telebanking and PC-Banking. With the aid of information technology, online banking provides the opportunity of paying bills and performing transactions of any kind electronically. Electronic payments can be credited or debited the same day. Customers can make payments for goods or services without necessarily coming in contact with physical cash and running the risk of handling a large amount of money. These web-based interfaces provide a user-friendly experience, enabling users to transfer funds, review transaction history, and manage accounts with a few clicks.

Mobile Banking

Mobile banking platform is another digital banking platform that resides on mobile phone. Customers are able to carry out banking transactions on their phone without any need to visit the bank. Such banking services that customers can enjoy using mobile banking platform include funds transfer, account balance enquiry and bills payment (Awoniyi, 2022). This mode of e-banking makes use of the global system for mobile communication (GSM) phones as the primary electronic device. The mobile banking services basically allow customers to operate their accounts with the operating banks from mobile phones to a large extent, as long as their phones and network support short messaging service (SMS). Mobile banking has been in Nigeria since late 1990's and it provides yet another alternative to almost all of the functions available on the Automated Teller Machines except withdrawal and deposit of cash.

Mobile banking has numerous benefits for customers, as it provides increased convenience, expanded access and significant time saving. The use of mobile banking technology is not limited to banks, telecommunications companies have also come on board to work with mobile banking agents to reach out to consumers. These telecommunication companies can integrate these mobile banking technologies into their existing telecommunication networks (Ezeocha, 2024). Mobile banking apps have become essential tools for banks, allowing customers to manage their finances on the go (Sharma, 2019).

USSD Banking

USSD, which means Unstructured Supplementary Services Data is a GSM service that allows high-speed interactive communication between subscribers and banks across a GSM network. It allows users without a smartphone or data/internet connection to use mobile

banking through the designated codes. The banks have different codes that allow consumers to carry out financial transactions on their mobile phones. USSD does not rely on the internet but GSM technology, as those who do not have internet access, but do have the GSM network on their phone can make and receive calls as well as carry out financial transactions. This is also beneficial to those in the rural areas where there may not be internet facilities, as they can rely on their GSM network. (Ezeocha, 2024)

Mobile Money

Mobile money allows people to send and receive money, make payments, and save money using their mobile phones. Mobile money works by using a digital wallet that is stored on a user's mobile phone. Users can access their mobile money wallets from anywhere in the world with a mobile phone signal. Mobile money is a secure way to store and transfer money. Mobile money offers a number of benefits, prominent among which include accessibility, affordability, convenience and security. Mobile money is more accessible than traditional banking services, especially for people living in rural areas and for people who are unbanked. Mobile money has quickly become popular in Nigeria, where it is now used by millions of people and has made financial services more accessible to rural dwellers and the unbanked people, thereby eliminating the stress of having to travel long distances to a bank to access financial services, as was obtainable in the past (Ezeocha, 2024). Services like M-Pesa, MTN Mobile Money, and Airtel Money enable mobile financial services.

ATM and Debit Cards

Automated Teller Machine- ATM, is a computerized telecommunication services that provides the customers of financial institutions with access to financial transactions in a public space without the need for a human clerk or bank teller. Ikpefan et al. (2018) described ATM as a telecommunication appliance supported with high technology that gives customers the opportunity to conduct their banking transactions in the general space independent of bank officials. It is a computer-controlled device that dispense cash, and may provide other services to customers who identify themselves with a personal identification number. ATM dispenses cash at any time of the day and night, unlike the traditional method where customers have to queue for a very long time in order to withdraw cash or transfer funds. ATM and Debit Cards allow bank customers to withdraw cash perform transactions at ATMs and Point-of-Sale terminals. Automated Teller Machine when introduced in Nigeria in 1989, was primarily used for cash withdrawal purposes. However, owing to digitalization and continuous business process automation improvement, ATM has become a one stop shop to carry out nearly all traditional banking related transactions (Awoniyi, 2022). Although ATMs were originally developed as just cash dispensers, they have evolved to include many other bank related functions. ATMs includes many functions which are not directly related to the management of one's own bank account, as it could be used for balance enquiry, cash withdrawal, transfer of funds, checking savings and credit cards accounts, bills payment, etc.

Point-of-Sale (POS) Terminals

Point of Sale is a type of digital payment terminal that allows customers to check their balance, pay for items and services and perform funds transfer transactions without necessarily carrying physical cash (Ikpefan, et al., 2018). POS is an online device that allows customers to transfer funds instantaneously from their bank accounts to make payments when making purchases using debit card. Increased banking productivity results from the use of POS to service customers' shopping payment requirements, instead of handling cheques and cash withdrawals for shopping, the operation which still continues after banking hours.

Social Media Banking

The social media are websites and applications that enable users to create and share content or participate in social networking. Some banks offer banking services through social media platforms like Facebook, X (formerly known as Twitter), and WhatsApp. Facebook is easily the largest social networking site in the world and one of the most widely used. Banks open Facebook accounts through which they provide their services and also advertise their products, carry out promos and many other things to their customers. Same applies to WhatsApp and X online platforms.

Digital or Online Payment Platforms and Digital Wallets

The digitization of payments represents a fundamental shift in how financial transactions are conducted. Banks have adopted online payment applications that allow consumers to send money to anyone in Nigeria with a phone number or email address. Platforms like Paystack, Flutterwave, and Interswitch facilitate online payments. Digital payment methods encompass various options, including electronic funds transfers, online bill payments, and contactless payments, and have gained significant ground, reducing reliance on cash-based transactions and checks. These methods offer unparalleled convenience and security for both consumers and businesses, enabling swift and secure transactions in an increasingly interconnected global economy (Pazarbasioglu et al., 2020). Digital wallets have also been developed whereby consumers can also transfer money from their other accounts into their wallets, and can link their bank account(s) and debit card (popularly known as ATM cards in Nigeria) to their wallet. Consumers can also pay for services using money from their wallet. Users of mobile money can deposit money into their digital wallets from a variety of sources, such as bank accounts, mobile money agents, and retailers. Once money has been deposited into a digital wallet, it can be used to send and receive money, make payments, and save money. Services like Apple Pay, Google Pay, and Samsung Pay allow customers to store their card details for easy transactions

Adoption of Artificial Intelligence (AI) and Automation Technologies

In order to enhance their operations and customer experience, Nigerian banks have started to adopt artificial intelligence (AI) and automation technologies. For instance, AI-powered

chatbots, have been deployed by banks to provide customer support and assistance. This emerging trend, although poses challenges regarding job displacement and the impact on the workforce, tend to improve banks' operational efficiency by automating repetitive tasks, thereby allowing employees to focus on more complex and value-added activities. Moreover, the adoption of artificial intelligence by banks enables them to gain valuable insights from data analysis, resulting in better risk management and decision-making.

Benefits of Digitalization in Banking in Nigeria

Improved Operational Efficiency

Through digitalization, banks can automate processes, thereby reducing costs and enhancing operational efficiency. Digitalization in banking involves incorporating technology to enhance the operational efficiency of both front office as well as back office. Back-office operations are streamlined, and human error is decreased by automating routine tasks like data entry and transaction processing (Gaurav & Kongar, 2021). By automating repetitive banking processes, manual customer data entry, and validation or processing documents, banks can save significant amount of labour which can lead to more efficiency business operations. The benefits of digitizing documentation and record-keeping are reduced paperwork, accelerated decision-making, and decreased operational costs. Banks can enhance risk assessment, fraud detection, and customer service by using data analytics and artificial intelligence while increasing operational efficiency (Azman et al., 2021).

Enhanced Service Delivery and Customers' Satisfaction

The emergence of digitalization has necessitated the structural reorganization in banks and make them change the way of their operations to deliver quality services to their customers. Banks leverage digitalization to develop innovative products and services that cater to changing customer needs. The services which are being provided by the banks have now become more standardized and efficient. Customer service is a very important aspect of banking as no bank can survive without their customers. Also, banks can now provide customized services to their customers and the quality, content, and the method of delivering the services can be tailored according to the needs of the customers. AI-powered and automated systems can enhance customer satisfaction by providing personalized and efficient services. Banking now flaunts a user-friendly garb and has become a lot more desirable and efficient; a scenario which was not the case until the emergence of digitalization

Strengthened Bank-Customer Relationship and Enhanced Customers' Experience

Establishing a good relationship with existing customers is very essential for the sustenance and success of any bank in today's competitive world. Digitalization provides banks with opportunities to engage with customers through digital platforms, fostering stronger relationships. Digital channels such as social media platforms and other online platforms

are used by banks to communicate with their customers to give information about the new schemes offered by them and to take feedback and complaints from the customers about the services provided by the banks on a regular basis. This enables the banks to provide a better customer experience and helps in enhancing the image of the bank in the mind of the customers. When customers discover that the bank has a good brand presence and is interactive and open to customers' complaints, then automatically, they develop a sense of trust for that bank. This will help the bank in increasing its customer base.

Data-Driven Decision-Making

The digitalization in banking helps banks make data-driven decisions which are less likely to fire back, as they have been carefully collected from a well-studied demography. By integrating data across all business operations, banks can utilize customer data more accurately and perform data analysis to gain insights that can help boost business performance. Data analytics tools allow banks to gain deep insights into customer behavior, preferences, and financial patterns. This data-driven approach enables banks to tailor financial products and marketing efforts, identify new market opportunities, and anticipate customer needs. It is increasingly used to create personalized financial solutions, improving customer engagement and loyalty (Hani, et al., 2022).

Quicker and Touchless Banking Processes

Because of the complicated processes involved in traditional banking and the amount of time that is wasted while jumping from one counter to the other, visiting a bank is usually not an experience most people look forward to. Digitalization in banking enables banks to offer touchless processing of majority of banking related tasks and offer self-servicing capabilities to their customers. Except where and when very necessary, customers are no longer obliged to visit the bank to complete financial transactions in the digital age. They can use the bank's mobile and online banking services to move money from their accounts, pay their bills, and check their account balance. They can borrow money without ever entering a branch. Customers' financial transactions are now more straightforward and take less time.

Increased Data storage and Security

Through banking digitalization, traditional banks can amass a huge and vast amount of crucial customer data from personal details to bank account passwords, which can be used by them or other businesses for their purposes. Customers' sensitive information can be digitalized and securely kept by banks behind their cybersecurity infrastructure for recourse and use when necessary. Essentially, the banks also have the responsibility to deploy necessary security measures to protect customer's valuable and sensitive information from getting into the wrong hands.

Challenges of Digitalization of Banking Services in Nigeria

Increased Cyber Attacks and High Rate of Cyber Fraud

As customer data is increasingly digitized, banks face the challenge of ensuring the security and privacy of sensitive information. Cyberattacks, data breaches, and malicious activities pose substantial risks to banks and their customers. Digitalization of banking services has created a loophole for cyber attackers to exploit to steal the personal information of consumers of banking products. These digital attacks through cyberspace threaten financial stability as a single attack can make service through the system unavailable for several days, which takes vigorous work to run again (Ezeocha, 2024).

Consequently, many Nigerians are still afraid of fully embracing digitalized banking platforms due to the high rate of fraud (commonly referred to as 'scam') prevalent in the country. This attitude of such Nigerians is further underlined by the huge amount of money lost to fraud by Nigerian banks and other financial institutions every financial year. The more unfortunate aspect of this situation is that the victims of fraud perpetrated in the Nigerian financial system hardly receive any compensation, as laws guiding e-transactions in Nigeria are still evolving and don't seem to receive speedy adjudication. Again, the cost of obtaining legal remedies in terms of finance and time is also frightening.

Poor Infrastructure Technology Supporting Digital Banking

Transforming digital banking infrastructure involves implementation of complex technologies that require expert support from a technology partner. The complexities of implementing latest technologies pose a significant challenge to banking digitalization as it can drive up the cost of the project and cause delays in deployment. Moreso, to say the least, the reality of most rural communities in Nigeria presently is the absence of telecommunication and electricity services. Even in the urban areas, the challenges of power failure and poor telecommunication network are still pervasive, as most banks in Nigeria even generate their own power supply. Digital banking requires access to the internet, which is not available to everyone, particularly those in remote areas or low-income households. This means that some people may be excluded from accessing banking services.

High Cost of Digital Transformation and Connectivity

Banking digitalization projects can incur significant costs which require extensive due diligence before initiating the project. Therefore, most banking digitalization projects are very slow when it comes to execution due to slow development and deployment of digital solutions. It is also no longer news that Nigeria has become the poverty capital of the world. The prevailing circumstance is such that many Nigerians are struggling to keep up with basic needs such as food, shelter, healthcare, and clothing. They cannot therefore afford the high cost of acquiring smart mobile phones let alone bearing the cost of periodic internet subscriptions. It is common knowledge that internet connectivity in Nigeria does not come cheap. Thus, the current trend of rising rate of poverty in Nigeria and high cost of

internet access indicate that many Nigerians may not be able to tap into the full benefits of digitalized banking services

Digital Skill Gap

Digital skill gap exists among banks' employees and users of banking products. To make the most of the new digital infrastructure, any digital transformation strategy should incorporate adequate training and mentorship for internal staff. Some bank employees still lack the technical expertise to fully implement and sustain the digital transformation. Nigeria is presently faced with the challenges of illiteracy and rising out-of-school syndrome. So, without basic education and technical skills, consumers of bank products can neither effectively use, nor take advantage of the modern financial products and services provided through various digital platforms. Literate and skilled manpower are necessary for effective utilization of digital facilities available in banking services.

Urban-Rural Digital Divide

The prevailing situation in Nigeria is that most modern facilities that have the potential to uplift the standard of living of the people are usually concentrated in the urban areas while the rural communities are generally neglected. Consequently, the adoption of digital banking has created a digital divide between those with access to technology and those without access. This tends to exclude low-income households, older people, and individuals living in rural or remote areas from accessing banking services, with its far-reaching impact on financial inclusion.

Regulatory Compliance Challenges

New technologies, such as those associated with digitalization in banking, often outpace regulations, making it challenging for banks to navigate compliance requirements effectively. So, navigating the complex landscape of compliance, especially in areas such as data privacy and consumer protection, can be challenging (Oluwaseun et al., 2023). The Nigerian banking industry benefits from strict regulatory oversight by the Central Bank of Nigeria (CBN). The CBN ensures compliance with prudential guidelines, capital requirements, and risk management frameworks to maintain the stability and soundness of the banking sector. Banks must adapt to rapidly changing regulations, varying significantly across regions and countries. Non-compliance can lead to hefty fines, reputational damage, and operational disruptions (George, et al., 2023).

Conclusion and Recommendations

The adoption of digitalization was a huge turning point in the history of the banking sector, not only in Nigeria, but in the global world. Ultimately, the digitalization of the Nigerian banking industry has significant implications for its overall dynamics. It has been shown to have, among other things, resulted in operational efficiency of banks, and enhanced service delivery and customers' satisfaction. In fact, it has completely transformed the way banks

conduct their businesses and has made banking transactions easier and faster. The banks have now become technology-driven. While this trend presents numerous benefits for banks, customers, and the Nigerian economy at large, it also poses and is confronted with several challenges.

However, one of the major challenges bedeviling banking digitalization in Nigeria revolves around cybersecurity threats and data privacy concerns. But, despite these challenges, digitalization is not an option for the banking sector; rather, it is an absolute necessity. Banks must continue to adapt and embrace emerging technologies, while at the same ensure the prioritization of customers' satisfaction and robust risk maintenance. Bank digitalization has come to stay with lots of changes, which without doubts, have benefited the Nigerian banking system and the nation at large.

In order to further maximize the benefits that underly digital transformation in banking, and to reasonably address its key challenges, the following recommendations are proposed for banks in Nigeria:

- Banks should continuously upgrade their technologies and infrastructure to support digital channels and adapt to emerging digital technologies.
- Banks should continuously prioritize the adoption of effective and robust cybersecurity measures, leveraging adequate investment both in cybersecurity devices and human resource development programmes for employees, in order to strengthen customers' data privacy and safeguard customers' financial transactions. These are necessary to help identify, checkmate and protect against potential cyber threats and attacks.
- Banks should ensure adaptation and adherence to rapidly changing regulatory requirements, which vary significantly across regions and countries, as non-compliance can lead to hefty fines, reputational damage, and operational disruptions.

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