

IMPACT OF INFORMATION TECHNOLOGY ON BANK OPERATIONS IN NIGERIA

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ABSTRACT.

The way banks provide services, handle transactions, and communicate with clients has been profoundly changed by the incorporation of IT (information technology) into banking operations. This study highlights the advantages and disadvantages of digitalization by examining how IT affects banking accuracy, efficiency, and customer happiness. Results show that innovations including electronic payment systems, teller machines (ATM), and internet banking platforms have improved customer accessibility, decreased operational mistakes, and expedited regular procedures. But there are drawbacks to the quick uptake of IT, including as cybersecurity threats, system outages, and the requirement for ongoing employee training. Overall, the study emphasizes that although IT has emerged as a key force behind development in banking, its efficacy depends on cautious use and continuous adaptation to new developments in technology.

CHAPTER ONE.

1.0 INTRODUCTION

1.1 BACKGROUND OF STUDY.

Global electronic commerce has been made possible by the quick growth of computer networks and information technologies, including the Internet and telecommunications systems. The Internet's almost ubiquitous accessibility has made it a vital commercial tool and given rise to a new kind of economy known as the "digital economy." E-finance, e-money, e-banking, e-brokering, e-insurance, e-exchanges, and even e-supervision are all areas of financial intermediation and financial markets that have emerged and advanced quickly as a result of this digital economy. Innovation in new information technology (IT) is becoming the most significant aspect in the future growth of banking, impacting and influencing banks' business and marketing strategies. (chukwukaelo and charles amah, 2018)

The banking sector now uses information and communication technology as a worldwide instrument to access international markets. ICT use in banks has spread around the world, and in order for any bank to thrive in the highly competitive global market, it must be ICT compliant. With the advent of ICT, manual and conventional methods of doing business have been transformed and are being replaced by advanced technology built on computer and other electronic device automation and connectivity. For example, online billing and payments, sophisticated websites with product information, and real-time teleconferencing across continents and time zones are replacing ledger books, paper invoices, printed materials, and business travel. (Adesola et al., 2012)

Researchers now provide more empirically grounded reports rather than just reports. These consist of the comprehensive works and For example, a survey of a few fast food establishments revealed that those with the technology and high morning sales did far better when it came to reducing the cost of materials. Nonetheless, it was discovered that businesses that depended heavily on computers either performed very well financially or poorly. The initial phase of information technology in banks began with an effort to mechanize and automate the banking process. Note counters and accounting calculators were used to expedite simple transactions. (Frank & Oluwafemi, 2012)

In order to achieve better levels of operational performance, many firms have turned to aggressive service delivery as a result of technical infrastructure advancements. According to a PWC analysis from 2016, one of the factors upending financial institutions' roles, structures, and competitive environments as well as the markets and communities in which they operate is technology. In the current financial services ecosystem, it is becoming clear that the fastest rate of technology advancement is both the most innovative and destructive force. As a result, all banks now consider the application of information and communication technology strategies to banking services to be of basic significance and a must for both local and international competitiveness. (Ineke & Dare, 2022)

All banks operating within Nigerian territory now consider the application of electronic payment (concepts, techniques, and policies) and the implementation of electronic devices in the banking industry to be of fundamental importance and concern. In fact, it is a prerequisite for both local and global competitiveness. Many banks' attention has been attracted to the use of different technology devices in promoting/achieving improved customer service delivery, which has ensured continual increases in profitability and higher return on investment, as a result of the recent consolidation process in the Nigerian banking sector. However, Nigerian banks are under more pressure to raise productivity due to the quick expansion of global financial services. Customers may now visit any computerized bank and complete their transaction quickly thanks to the advancements in banking. (Olanrewaju et al, 2016)

Modern innovations made possible by the information economy highlight this trend. It's also crucial to note that Nigerian contemporary banking is fuelled by the results of extensive domestic and international research and development. The researcher has selected this topic for a critical study with the goal of establishing the relationship between the adoption of specific ICT tools and their impact on the performance of commercial banks in Nigeria, in an attempt to determine the prevailing trend in the adoption of ICTs in the operations of Nigerian commercial banks. The purpose of this study is to determine if the usage of ATMs, POS, MM, WP, and IBT in financial institutions has long-term equilibrium and significantly affects the ROE of Nigerian commercial banks. Additionally, the study adds to the understanding of clients who operate using ICT technologies. Customers are informed about the best and most efficient technologies available in banks, which may be appealing to them. The report provides factual data and statistics that are

essential for determining the finest ICT solutions that can be pushed in order to increase the return on shareholders' investment in Nigerian banks. (Nwakoby, 2015)

1.2 STATEMENT OF THE PROBLEM.

Nigeria's banking sector has adopted a number of information technology (IT) tools, including digital payment platforms, automated teller machines, mobile banking, and online banking, in an effort to stay up with worldwide technological advancements. Even though it is anticipated that these advances would enhance overall efficiency, decrease transaction delays, and improve service delivery, many consumers continue to express dissatisfaction about subpar service. The efficiency of banks is nevertheless impacted by frequent network outages, sluggish transaction processing, security issues, and system outages.

Even with significant investments in digital infrastructures, many banks find it difficult to fully reap the rewards of IT. Due to unsuccessful transactions or unauthorized access in the past, some clients are still wary about using internet banking. However, bank staff can struggle to adjust to new systems, which can result in mistakes, delays, or ineffective service. These problems raise crucial questions about whether the technology being used is actually enhancing performance or if the difficulties are just being transferred from manual to digital platforms.

Even though technology adoption in Nigerian banking has been the subject of several studies, little is known about how these IT systems are affecting daily banking operations from the viewpoints of the organization and its clients. It is vital to look into the true effects of information technology on bank operations in Nigeria due to the discrepancy between anticipated performance benefits and user reality. Therefore, this study aims to investigate whether the use of IT is actually improving operational efficiency or if ongoing technological and human-related issues are compromising its efficacy.

1.3 OBJECTIVES OF STUDY.

This study's primary goal is to comprehend how information technology is influencing Nigerian banks' daily operations and investigates whether or not these technological tools actually improve the efficiency of banking services. Nigerian banks have made significant investments in digital platforms including online banking, mobile applications, automated teller machines, and electronic payment systems in recent years, but it is still crucial to assess the extent to which these advancements have enhanced consumer happiness and service delivery.

1.4 RESEARCH QUESTIONS.

Information Technology's Effect on Nigerian Bank Operations:

1. What impact has information technology adoption had on Nigeria's everyday banking operations' speed and effectiveness?
2. How has information technology helped Nigerian banks provide better customer service?
3. What effects has the adoption of online and mobile banking systems had on client convenience and satisfaction?
4. What difficulties do Nigerian banks have while putting information technology systems in place and keeping them up to date?
5. How much has information technology improved transaction accuracy and decreased operational mistakes in banks?
6. What effects has the use of IT-based security technologies had on Nigerian banks' client data security and protection?
7. How has information technology enhanced productivity and internal communication in Nigerian banks?
8. What is the impact of IT investment on Nigerian banks' competitiveness and overall performance?

1.5 SIGNIFICANCE OF STUDY.

This research is significant because it examines how Nigerian banking operations have changed as a result of information technology (IT), which is essential in the current digital era. The research will give bank managers, legislators, and other stakeholder's important information on how to enhance productivity and service delivery by looking at how IT affects banking operations.

The results can help bank management make decisions about implementing new technologies, modernizing current systems, and educating employees on how to better use IT to increase customer happiness. The report may be used by policymakers to create rules that promote safe, effective, and open banking processes throughout the nation.

Additionally, by adding to the body of knowledge on the nexus between IT and banking, the study will help students and academic scholars. Additionally, it could assist in identifying possible obstacles, such as operational bottlenecks and cybersecurity threats, allowing institutions to take preventative action. In the end, this study emphasizes how technology may improve financial services, stimulate economic expansion, and build a stronger banking industry in Nigeria.

1.7 LIMITATION OF STUDY

There are several constraints to take into account, even though this study offers insightful information about how information technology (IT) impacts banking operations in Nigeria. First, the study's primary emphasis on a small number of institutions may restrict how broadly the results can be applied to the banking industry as a whole. Second, a significant portion of the data was gathered through questionnaires and self-reported answers from bank workers and clients, which may have been skewed by personal prejudice or false memories. Third, the research only takes into account certain IT services and tools; other cutting-edge technologies could potentially be important but were left out. Lastly, the outcomes may have been impacted by uncontrollable external factors including changes in regulations, shifts in the economy, and regional variations in infrastructure. Notwithstanding these drawbacks, the study nevertheless provides a helpful insight of how IT might enhance operational procedures, customer service, and efficiency in Nigerian banks.

CHAPTER TWO.

2.0 LITERATURE REVIEW.

Businesses are increasingly using technology to provide insights about consumers' behavioral patterns and preferences in response to the expectations for prompt, efficient, and dependable services. Well established outsourced support functions (technology and operations) are increasingly being employed to deliver services and control costs (e.g. Automated Teller Machine networks, Cards processing, Bill presentment and Payments, Software Development, Call centre operations and Network administration). The framework of the Nigerian banking sector altered considerably throughout the time under study, bringing about substantial changes in the economy. Within the context of contemporary changes and with growing breadth and depth of rivalry the work of finding the distinctive features that would let any bank beat its rivals is getting harder. (Oluwatolani et al., 2011)

The number and speed of banking transactions have significantly increased due to the exponential rise of information technology, which has opened up commercial prospects for banks and drastically changed the way banking operates globally. The positive influence of data communication technology on the international criteria, especially improved revenue corroborates with findings of Laudon & Laudon (2018) that investigates the entire cash flow of most fortune 500 businesses and related their performance to information system. They came to the conclusion that managers' decision-making, planning, and output of goods and services are all directly impacted by information technology. Over the years, Nigeria's banking sector has seen significant transformations related to the advancement of information technology. (Daniel, 2023)

Communication is the transfer of information from one location to another via a medium, whereas information communication technology (ICT) is the computerization of process and control information production using computers, transmission software, and auxiliary equipment

like automated teller machines and debit cards. According to Alawode & Emmanuel (2008), one example of new ICT has had influence on the finance sector in that its advent allows banks to use credit scoring systems to consumer credits, loans or credit cards. Hence, items that used to be largely dependent on the banks judgment of its consumers have now become regulated. (Gerdaline, 2009)

In Nigeria, there was no officially published Information on the state of computerization in banks at that time. The advent of information and communication technology has brought about enormous changes, changing how organizations are organized and how companies are operated. Yet, Information technology is not static: it is always growing, breaking new barriers, defining new boundaries and providing new body of tools, processes and infrastructure for generating, collecting, storing, processing, and sending data and information. With the advent of multi-user networks in the 1970s, terminals could now be connected to minicomputers and mainframes inside a building's typically limited radius. All processing was carried out on the computer because the terminals lacked intelligence. (Luka & Frank, 2012)

A contemporary corporate enterprise's ICT infrastructure layout is one of the criteria used to rate it. This is an evidence of the importance of ICT for commercial enterprises. Banks in particular utilize information and communication technology to increase the efficiency and efficacy of services supplied to consumers, improve business processes, as well as to boost management decision making and workgroup cooperation. Their competitive positions in quickly evolving and growing economies are strengthened as a result. Environmental, organizational, and technical reasons are producing a highly competitive corporate climate in which consumers are the main point. Additionally, these variables are subject to sudden and sometimes unpredictable changes. (Shetty & Nikhitha, 2022)

Digitalization in the industry of financial services has been an initiative that has been many years in the making. It is this technologically assisted change of the financial industry as a whole that is informally referred to as “FinTech”. Digitalization has impacted the corporate landscape in numerous ways. Most significantly, it has enabled companies to use data to make more informed decisions. Businesses can gather and analyse data more effectively with the correct tools and procedures in place, which enables them to generate better choices that increase their profitability. It has additionally led to more effective processes. The global banking industry continues to adapt to the aftermath of the crisis setting, which has seen numerous disruptions and changes. A robust

banking sector helps to minimize the negative effects of a financial crisis and encourages a quicker recovery. Because we rely so heavily on technology, financial companies must also use technological advances to stay connected with their clients and provide their clients with the best services available.(Agbolade, 2011)

It is an idea that is profoundly impacting nearly every facet of human pursuits. This suggests that it requires the use of concepts to engage physical elements in accomplishing a targeted aim. The combination of computer and telecommunication after roughly four decades of using computers to ordinary data processing, especially in information storage and retrieval, has generated a new development where technology has become the basis of growth throughout the world. Developing nations like Nigeria now have the chance to catch up and reach their goals of development without having to "reinvent the wheels" of economic progress. The majority of business (banking) settings have drastically changed as a result of this new technology, which has brought about a profound social upheaval. (Samuel-ogbu, 2022)

Nigerian bank clients' experience was further enhanced by the advent of online automated teller machines (ATM), which eliminated the need for them to adhere to banking hours, which usually meant leaving work because banking hours coincided with working hours, in order to access services. The ATM itself has developed into a cash deposit device as well as a cash collection device. Customers may now obtain cash and perform other banking activities from any ATM, regardless of the provider, thanks to interoperability. Since the ATM, more ways of engagement have emerged. Customers may access their banks and conduct transactions using digital devices at any time and from any location thanks to the country's increasing embrace of online and mobile banking. In line with a scientific approach to information and the clarification of its most defining characteristics, this has resulted in significant shifts in how the idea of information is understood. It was expanded to encompass signal interaction in the animal and plant kingdoms, as well as information communication between humans and robots. The speed at which new technologies are bringing about change has had a profound impact on how people live, work, and play throughout the world. (Bamidele et al., 2013)

2.1 HYPOTHESES.

There is a significant relationship that exists between information technology and bank operations in Nigeria.

- ☉ **Independent Variable (IV):** Information technology usage.
- ☉ **Dependent Variable (DV):** Bank operations.
- ☉ **Hypotheses.**
- ☉ H0 (Null Hypothesis): The efficiency of banking operations in Nigeria is negatively impacted by the usage of IT
- ☉ H1: The efficiency of banking operation in Nigeria is positively impacted by the usage IT.

Relationship between the variables.

The way that technical instruments influence the speed, quality, and dependability of banking operations is a major indicator of the link between information technology (independent variable) and bank operations (dependent variable). The smoothness and efficiency of everyday operations tend to increase when banks use more sophisticated IT systems, such as digital payment platforms, automated processing tools, and secure data management software. IT frequently speeds up customer service, lowers manual mistake rates, and facilitates improved decision-making by providing correct data. This link isn't always clear-cut, though, as the advantages of IT rely on staff preparedness, appropriate deployment, and regular system upkeep. Information technology significantly improves banking operations by making them more responsive, safe, and customer-friendly when these elements come together.

CHAPTER THREE.

3.0 METHODOLOGY.

This chapter discusses the processes and procedures I used to evaluate the way information technology (IT) affects everyday activities of banks. The goal is to give a clear image of the study's design, data collection methods, and analysis methods.

3.1 RESEARCH DESIGN.

A design of descriptive surveys was used in the study. This design was selected because it enables the researcher to directly gather viewpoints, experiences, and observations from bank staff members and clients who deal with IT-based systems. Since the study's objective is to comprehend actual procedures and difficulties in the banking sector, a survey technique offers a useful means of gathering various points of view.

3.2 POPULATION OF STUDY.

The demographic comprises bank workers (such as the cashiers, client service officers, and IT support people) and normal bank clients who use digital banking channels. These individuals were selected because they have personal experience with IT technologies such as mobile banking applications, ATM or POS transactions, internet banking, and internal payment software.

3.3 SAMPLE SIZE AND SAMPLING TECHNIQUE.

A group size of 30 respondents was generated using a basic random sampling procedure. By giving each participant a comparable opportunity of being chosen, this approach minimizes prejudice and assists the researcher in getting fair input. To ensure that the data more truly represents the bank's activities, the sample was split among many branches.

3.4 METHODS OF DATA COLLECTION.

A structured questionnaire was the primary method used to gather data. A Likert-scale questionnaire (e.g., Strongly Agree to Strongly Disagree) served as the primary tool. This made it possible to quantify the degree to which respondents reacted about specific assertions pertaining

to IT and banking operations. The conversation guide was also utilized to augment the questionnaire results.

The questionnaire included topics like:

- Usage of IT technologies in regular bank activities
- Rapidity and precision of transactions
- Levels of customer satisfaction
- Challenges posed while employing banking technologies

3.5 METHOD OF DATA COLLECTION.

For this study we employed a cross-sectional survey administered online. With this method, we were able to get a quick overview of how bank employees and clients view the impact of information technology (IT) on regular banking operations. We picked an online questionnaire since it is rapid, cost-effective, and suits both the scattered character of bank personnel and the tech-savvy consumer base we planned to target.

3.6 QUESTIONNAIRE.

According to the questionnaire responses, the majority of participants think that information technology has significantly increased the speed and efficiency of banking operations. In comparison to conventional ways, several respondents pointed out those digital systems like internet banking, mobile applications, and computerized transaction platforms make daily banking more comfortable and shorten wait times. A number of interviewees also emphasized how IT has decreased human error and improved financial record accuracy. Some respondents, however, voiced worries about problems including network malfunctions, system outages, and the increasing danger of cyber attacks, which might cause insecurity or interfere with operations. The common consensus is that even while IT has improved banking, banks still need to improve digital security and dependability in order to preserve customer confidence and run smoothly.

The following pie chart shows the responses derived from the online questionnaire and their responses to the questions in order to know the impact of information technology on banking operations in Nigeria.

Age Range

21 responses

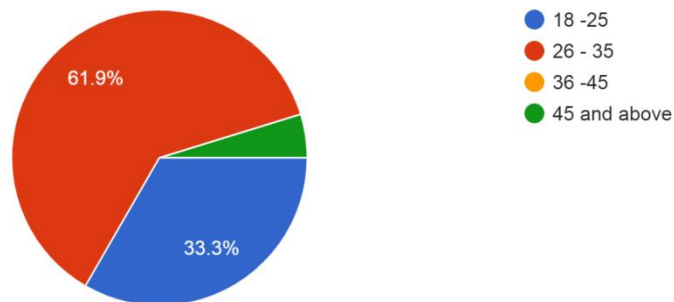


Figure 1: Shows the age demographic of people that responded to the questionnaire and the range with the highest value are in the range of 36 – 45.

The introduction of online banking has reduced the need for physical visits to banks.

21 responses

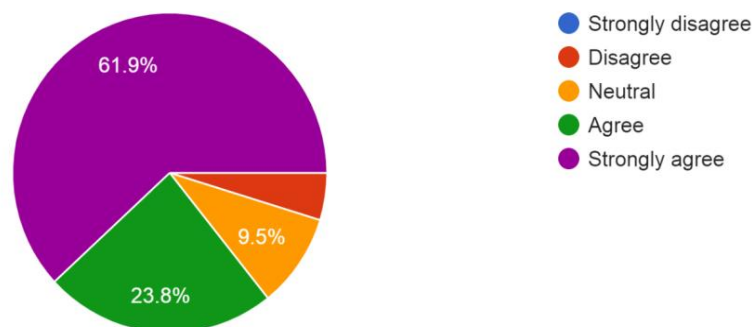


Figure 2: This chart shows that more respondent strongly agree that online banking operations has more positive effect in the sense that it prevents unnecessary physical bank visit because most of this operations can be done online.

SECTION A Please indicate your level of agreement with the following statements: The adoption of IT has improved the speed of banking transactions.

21 responses

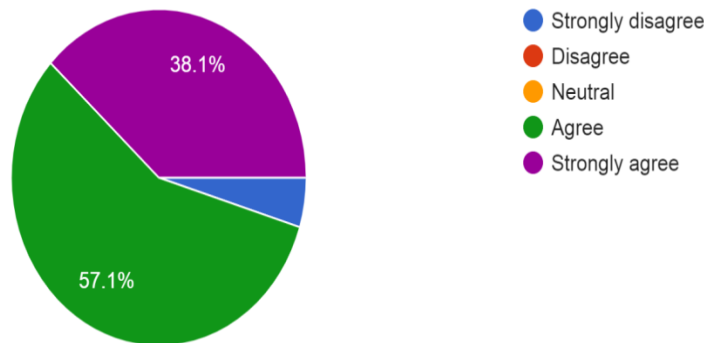


Figure 3: This shows that more people only agree that adoption of IT has improved the speed of banking transactions and this strongly suggest that although it has a positive effect on banking operations in Nigeria but more work needs to be put in place to ensure safety.

3.7 EXPECTED OUTCOMES.

It is anticipated that the study's conclusions would offer a more comprehensive understanding of the way information technology is influencing regular bank activities in Nigeria. The investigation should emphasize whether current technological tools—such as digital banking platforms, automated teller machines, Smartphone applications, and electronic payment systems are actually helping how banks service their consumers.

One predicted effect is a greater knowledge of how IT has helped banks function more quickly and efficiently, particularly in sectors like handling transactions, record keeping, and client communication. The survey may also identify advances in customer service, such as decreased queues in banking halls and quicker utilization of banking services via digital channels

Another possible consequence understands how technology has assisted improved decision-making within banks, notably by organizing data systems that help track consumer behavior, economic indicators, and internal operations. The study may also pinpoint any ongoing

issues that might impede the full advantages of IT adoption, such as system outages, security threats, or gaps in digital literacy. Overall, the research is likely to indicate that information technology has grown into a significant engine for development in the world of banking, helping banks function more effectively while giving clients more convenient and dependable services.

CHAPTER FOUR.

4.0 RECOMMENDATIONS AND CONCLUSION.

RECOMMENDATIONS.

Banks should make greater investments in modernizing their digital infrastructure in order to increase the benefits of technological advances on banking operations. Many organizations continue to use antiquated technologies that impede transaction processing and raise the possibility of technological malfunctions. Banks may improve customer satisfaction and cut down on needless delays by implementing more contemporary platforms and routinely maintaining their IT infrastructure. This upgrading should be constant instead of a singular endeavor, as technology keeps developing.

Another key step is to increase staff training. Even with the greatest technology, operations might fail if staff members don't completely grasp how to use it. Banks should conduct periodic training sessions and seminars that enable personnel become more competent with digital technologies like automated systems, safety protocols, and customer service software. When personnel feel prepared and competent, they can handle client demands faster and decrease mistakes that result from not being familiar with new technology.

Lastly, banks have to concentrate on bolstering cybersecurity protocols. Threats like counterfeiting, compromises of data, and identity theft get increasingly complicated as digital

operations expand. To preserve consumer information and sustain the confidence of the public, institutions need to invest in better firewalls, improved authentication systems, and frequent security assessments. It is also useful for counseling both staff and consumers on safe internet banking habits. When security is considered as a shared duty, it becomes simpler to decrease vulnerabilities while ensuring an uninterrupted digital banking environment.

CONCLUSION.

In conclusion, information technology's function in banking processes has expanded from being only auxiliary to serving as the foundation of contemporary financial services. The outcomes of this study reveal that digital technologies have helped banks operate quicker, minimize human error, and service clients more efficiently. Either via wireless banking services, quicker transaction systems, or enhanced record-keeping processes, IT undoubtedly makes daily banking better for both staff and clients.

However, this report also emphasizes that the advantages of IT are accompanied by obligations. To truly reap the benefits of digital transformation, banks must keep investing in system updates, robust cybersecurity measures, and employee training. All things considered, it is certain how information technology has positively changed the banking industry, and as banks adjust to new developments and shifting consumer demands, its impact will only grow.

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