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Analyzing the disruptive innovation of fintech startups in the traditional banking landscape in Nigeria

A case study on Access Bank PLC

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Thesis abstract

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The purpose of this study is to investigate how Nigeria's traditional banking industry has been disrupted by fintech innovation, and to assess how the banks have responded to this disruption, using Access Bank Plc as a case study.

Utilizing questionnaires and interviews, both quantitative and qualitative approaches were included in the study methodology. The results show that the impact of Fintech start-ups has led to notable transformations in Nigeria's traditional banking sector.

Fintech, or financial technology, has brought about a disruptive innovation in several areas. These include digital payments, chatbots, mobile apps, peer-to-peer lending, online investment platforms, digital wallets, blockchain technology, artificial intelligence, and others. These innovations have the potential to completely change the traditional banks' business model in Nigeria by strengthening customer relationships, optimizing human resource management, improving branding, and providing clients with cost-effective banking services.

By forming personal Fintech subsidiaries and collaborating with Fintech firms, Access Bank has strategically responded to the Fintech revolution by meeting and exceeding client expectations.

Keywords: Fintech, Traditional banks, Disruptive innovation, Technology, Financial system

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Abbreviations

Fintech	Financial Technology
CBN	Central Bank of Nigeria
PLC	Public Limited Company
SMEs	Small and Medium Enterprises
AFF	Africa Fintech Foundry

1 INTRODUCTION

Over the past few decades, the financial services sector has undergone substantial growth driven by advancements in technology. One such disruptive force is financial technology, also known as fintech, which is a combination of the terms "finance" and "technology" and this refers to the incorporation of technology into financial services to help financial institutions simplify their operations by developing technologically focused solutions that could combine established traditional financial services and emerging technologies (Sharma, 2021), changing how banking and other financial activities are conducted since the online world operates from a viewpoint of limitless restriction (Anifa et al., 2022, p. 1).

Indeed, the beauty of global economic growth lies in the always changing dynamics that shape how the entire world market functions and interacts. The financial technology (fintech) sector has experienced outstanding growth and has sparked creative innovations throughout the global financial environment, and they achieve this by enhancing existing products and services provided by traditional financial institutions (Olatunji, 2020, p. 18). Fintech solutions is made possible by the creation of technology driven apps that alter consumer expectations, promote the inclusion of the unbanked sector in the financial system, and generate opportunities in innovative ways (Odu, 2022, p. 4). As one of Africa's largest economies, Nigeria, a country with a developing tech-savvy population and a rapidly increasing economy has not been immune to this disruptive wave. It has a flourishing financial sector, which Ojo and Nwaokike (2018) describe as being marked by the coexistence of well-established traditional banks and startups. that has been significantly influenced by technological advancements.

In Nigeria, traditional banking has long been an accepted standard and the norm for doing banking business operations (Idoko, 2023). According to Idoko, "traditional banking" in Nigeria refers to the conventional banking system, which is more likely to operate using physical branches and tellers with little to no emphasis on using technology for banking activities. However, because of the increasing impact of globalization and information and communication technology on society and economic growth at the local, regional, and international levels (Omiunu et al. 2021, p. 9), The traditional banking sector in Nigeria faces the problem of coming up with and implementing creative innovative solutions. Additionally, the banking industry's operations have been subject to some forms of disruption due to digital technology (Obi, 2020).

As a result, the banking industry in Nigeria is under increasing pressure from customers who want more cutting-edge and effective services, which has had an adverse impact that encourages the industry to adopt and use the most advanced and competitive digital banking methods rather than continuing to use traditional banking practices (Idoko, 2023). In addition, the Nigerian banking system has also come to understand the importance and advantages of incorporating new technology advancements into its operations, especially as they attempt to maintain their competitiveness in the market system on both the national and international levels (op. cit.).

The use of Blockchain, artificial intelligence (AI), cloud computing, the Internet of things (IoT), mobile banking, and other technologies are a few instances of how these developments have impacted the traditional banking system and its operations (Nasy, 2023). Additionally, there are other options, such as voice-activated banking, which enables users to check account balances, make payments, and complete other banking tasks using their voice; biometric authentication, which uses facial and fingerprint recognition to give users a more secured and convenient banking experience; virtual reality banking; social media banking, open banking services among others (Lloyds, 2023). To help traditional financial banks improve their banking operations, fintech startups frequently offer these technology advancements (Sharma, 2021). Fintech firms have challenged the traditional banking sector, revolutionized how financial services are accessed and delivered, and emerged as formidable competitors thanks to their innovative solutions and cutting-edge technology (Anifa et al., 2022, p. 13).

According to Lloyds (2023), fintech startups could have an impact on traditional banking in the following ways: by increasing competition; by causing a shift to online and mobile banking; by emphasizing customer experience; by integrating new technologies like artificial intelligence, machine learning, and blockchain to improve digital offerings; by increasing cybersecurity risks; by conducting digital operations without having a physical presence in high street locations; and by creating increased demand for financial services. Such digital transformations offered by Fintech start-ups have the potential to disrupt operational activities, assist financial markets in operating more efficiently, generate growth and convenience that would improve customer experience and subsequently serve as a means of attracting new customers (Nasy, 2023).

1.1 Background of the study

Traditional banks have reacted to Fintech technology rather slowly, despite the growing wealth and long history of innovation and technology (Toptal Talent Network, n.d.). This could have an impact on the level of operational activities in the traditional banking industry, as well as their growth and ability to meet client requests for a better customer experience. Consequently, highlighting Sharma (2021) and Lloyds (2023), it is important to note that fintech companies can assist traditional financial banks in improving their banking operations. This can be done by offering technologically oriented solutions that could enhance the banking sector and the customer experience, which would boost the sector's growth and competitive advantage.

Amidst this dynamic transformation, like many other traditional banks, Access Bank PLC being one of the prominent players in the Nigerian banking industry has faced the challenge of adapting its business model to remain relevant in an increasingly competitive landscape, rethinking their strategies and operations to remain competitive as the rise of Fintech startups poses both opportunities and threats to the traditional banking institutions. In Nigeria, the impact of Fintech has been particularly profound. It has become imperative for established financial institutions like Access Bank PLC to assess the impact of these disruptions on their operations, market share, and customer base. Understanding the nature and extent of this impact can enable banks to devise effective strategies to respond to the challenges posed by Fintech startups while capitalizing on the opportunities they bring.

This study delves into the disruptive innovation brought about by fintech startups on the traditional banking landscape in Nigeria, with a specific focus on Access Bank PLC. Access Bank, as one of the leading financial institutions in the country, presents an ideal case study to explore the impact of fintech advancements on established banking entities and the bank's response to the fintech disruption, the partnerships it has forged, and the innovations it has adopted.

1.2 Objectives and approach of the study

The general objective of this study is to examine the disruptive innovation of Fintech startups on the traditional banking landscape in Nigeria: A case study of Access Bank PLC. The specific objectives are to:

- i. Ascertain the technologies that have been adopted by the banking system.
- ii. Examine the extent to which Fintech start-ups technologies start-ups have disrupted the traditional banking industry in Nigeria.
- iii. Investigate the implications of fintech start-ups disruption on Access Bank and how it has affected the bank's business operation, market share, customer base.
- iv. Analyze the challenges faced by Access bank and the bank's response to the fintech disruption, the partnerships it has forged, and identify the innovative strategies it has adopted.

The approach to the study will be carried out in the following ways:

- i. By conducting a thorough analysis of existing literature, academic papers, industry reports, and case studies on the influence of fintech firms on traditional banking models. This will help lay a solid framework for the research and aid in the identification of relevant topics, issues, and possibilities in the Nigerian banking industry.
- ii. Collecting information from a variety of sources, such as financial reports, market research, consumer surveys, and interviews with key stakeholders from Access Bank PLC, fintech firms, regulatory bodies, and customers. The data will cover a wide range of topics, including technology advancements, customer preferences, regulatory frameworks, and financial results.
- iii. Examining the various fintech innovations that have evolved in Nigeria's financial services sector and their consequences for the traditional banking landscape. Determine the innovations' advantages, benefits and limitations, as well as their possible impact on Access Bank PLC's market positioning and competitiveness.
- iv. Ascertaining how customers view fintech services in comparison to traditional banking services. Study the elements that influence customer acceptance of fintech products and services, as well as the motivators and challenges to transitioning from traditional banking to fintech solutions.
- v. Evaluating the specific effects of fintech innovative disruption on Access Bank PLC's business model, income streams, customer base, and market share. Examine the bank's strategy for responding to the challenges provided by fintech businesses, as well as explore prospective partnerships or collaborations with fintech firms.

Based on the findings, provide strategic recommendations to Access Bank PLC and other traditional banks on how to navigate the disruptive impact of fintech startups effectively. Propose

potential strategies to leverage fintech innovations to enhance their services, customer experience, and overall competitiveness.

1.3 Research problems and questions

As the global society and its commercial operations transition from traditional banking to online activities, there are increasing benefits of technology deployment and Fintech companies to the traditional banking system (Toptal Talent Network, n.d.). Customers are thus increasingly focusing on and demanding more innovative, dependable, and efficient services from the Nigerian banking industry, which puts pressure on the industry to move away from the traditional banking method and toward a better and more aggressive digital banking method (Idoko, 2023). The traditional banks are rather very slow to adopt such Fintech technologies, despite the growing wealth and long history of invention and technology (Toptal Talent Network, n.d.). Their performance could be impacted, and clients might become dissatisfied with financial services as a result. Additionally, the globalization process may have lost the Nigerian banking sector, making it impossible for it to compete on the world financial market causing the Nigerian traditional banking system to not be able to profit from the advantages that such technology provides to development (Idoko, 2023) as a result of which they might be falling behind in a number of economic sectors, particularly the financial industry and society as a whole.

Furthermore, although Toptal Talent Network (n.d.) found that traditional banks use relatively little fintech technology, little is known about how much the traditional banking sector in Nigeria uses fintech start-ups for operational tasks. Therefore, this present study focuses on examining the extent to which the disruptive innovation of Fintech start-ups has influenced the traditional banking landscape in Nigeria: a case study of Access Bank PLC. Thus, the following research questions would be used to drive this study:

- i. What are the technologies that have been adopted by the Nigeria banking system (Access Bank)?
- ii. To what level has the rise of Fintech start-up impacted the traditional banking system
- iii. What are the various operations of the traditional banking system that Fintech start-up has innovatively disrupted in terms of business operation, market share, customer base?
- iv. What are the challenges faced by the traditional banks in the adoption of Fintech technology in Nigeria?

- v. How has Access bank responded to the fintech disruption, the partnerships it has forged, and the innovative strategies it has adopted.

1.4 Significance of the study

In the current modern business environment, firms place a greater emphasis on investing in technological breakthroughs that serve as resources to encourage the development and sustainability of the organization. Understanding the function and advantages of the technology, however, gives rise to a propensity to invest in such technological advancements and resources. Fully utilizing disruptive innovation from Fintech start-ups possible in the traditional banking sector is essential for improving operational activities in Nigeria's traditional banking landscape, which could support the growth and sustainability of the country's traditional banking system.

The results of this study may be significant for the traditional banking institutions and may help to clarify the advantages of fintech start-ups in the Nigerian banking sector as well as the extent to which fintech technology has impacted Nigeria's traditional banking system. Additionally, the results of this study could give fintech businesses more knowledge about their significance to the traditional banking industry and assist them in maximizing the opportunities that such technological advancements could present for the traditional banking system and society due to the flexible benefits they could offer to customers who are society members. The findings of this study may also serve as a wake-up call for traditional banking institutions to invest in human capital in a way that will enable employees to gain the knowledge, skills, and information they need to advance their professional development in the workplace in today's technologically advanced, globally competitive business environment. This will ultimately lead to better customer experiences, higher employee and organizational productivity, and better customer satisfaction.

The results of this study will shed light on the possible long-term effects of fintech disruption in Nigeria and offer useful insights for policymakers, financial institutions, fintech firms, and investors. Developing laws that encourage cooperation and innovation in the financial sector will be made easier with an understanding of the difficulties traditional banks face and the tactics they use to remain competitive. Additionally, this research will add to the body of

knowledge in the area of financial technology and innovation by advancing the academic literature on fintech and its impact on conventional banking institutions.

1.5 Scope of the study

The study focuses on analyzing Access Bank PLC as a case study for evaluating the disruptive innovation of Fintech start-ups on the traditional banking sector in Nigeria. Questionnaire and in-depth interview would be used to elicit information from the employees of Access banks in Benin City, Edo State hence employees in the banking sector in Benin City, Edo State are the respondents of this study.

1.6 Operational definition of terms

Disruptive innovation: It refers to unusual breakthroughs and technologies that disrupts existing market and generates a new one, thereby increasing the competitiveness and performance of businesses by making premium, expensive or advanced products and services more reasonably priced, accessible, and simpler for a wider market. It explains how a smaller company can effectively take on larger, more established companies by enhancing existing products or services.

Fintech start-ups: These companies use technology to improve, automate, or change the way that financial services are provided to consumers or enterprises. They offer innovative solutions to traditional financial services and are known for their agility, flexibility, and ability to quickly adapt to changing market conditions. They offer a wide range of services, including mobile payments, digital wallets, and robo-advisors.

Traditional banking: This is the conventional banking system that tends to involve the operation of banking system based on physical branches and tellers with little or no emphasis on the use of technology for banking operations. They are known for their stability, security, and long history of providing financial services. They offer a wide range of services, including savings accounts, loans, and credit cards.

2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

With a particular focus on Nigeria's banking industry, this chapter offers an in-depth review of the existing literature research on the disruptive innovation of fintech and its effect on traditional banking. The review will cover the concept of fintech, its development, the different disruptive innovative ways it has impacted traditional banking processes and understand the precise effects and reactions to Fintech advances.

2.1 Disruptive Innovation

Disruptive innovation, according to Christensen et al. (2018, p. 1045), describes the emergence of new markets and value networks that eventually subvert established market leaders and alliances by disrupting current markets and value networks. It refers to any new technology or startup that seeks to question and change established patterns of competition. According to Mount (2012), disruptive innovations are those that alter current markets and shift customer expectations in the direction of higher levels of performance. Disruptive innovation, according to Christensen and Overdorf (2000, p. 69) and Christensen and Raynor (2003), was defined to comprise technology, product, process, and business model changes that challenged traditional business and operational practices. It is frequently used to encourage the adoption of creative ideas when businesses are threatened by disruptive change. (Henderson, 2006, p. 7; Mount, 2012).

2.1.1 Overview of Disruptive Innovation

In the finance world, the words "innovation" and "technology" are sometimes used interchangeably, as such the concept of disruptive innovation could be best understood when one provides the meaning of the two concepts of "disruptive" and "technology". Ojo & Nwaokike (2018) explained disruptive Technology as a technology that replaces an existing technology and disrupts the market or as a ground-breaking innovation that births a brand-new market. The idea of "Disruptive Innovation" is closely related to that of "Disruptive Technology" and refers to the process by which a good or service first establishes itself in basic applications at the bottom of a market before aggressively moving its way up the market and eventually displacing existing competitors.

Christensen et al. (2015, p. 7) argue that "disruption" refers to the process by which smaller businesses with fewer resources can successfully compete against established incumbent and potential businesses to better improve their products and services for customers to ultimately increase their efficiency and performance and increase their competitive advantage. On the other hand, the term "technology" can refer to things that are created by putting scientific knowledge into practice and are typically divided into six categories: communication, electrical, energy, manufacturing, medical, and transportation (Odu, 2022, p. 6). Comparing the definitions of disruptive and technology, it becomes clear that the former's claim applies to the latter as well.

Disruptive technology is described by Wallstreetmojo Team (n.d.) as an innovation that has the capacity to replace current technologies and systems and that also has the potential to significantly alter market behavior, its operations, and social and economic elements. It happens when a new competitor tries to capture more of a market niche by offering a more competitive, better, and more accessible alternative to an already existing good or service (Masterclass, 2022). As a result, the competition affects every facet of the company's operations. Additionally, it has three main parts, which are as follows (Masterclass, 2022):

- a) It has an enabling technology: Since innovation frequently calls for improved goods or services, it is necessary to have an enabling technology that can support such innovation.
- b) Innovative business model: For disruptive innovation adoption in business to be successful, it must be prepared to offer new business models that could target new clients, low-end customers, and attract new customers in a given market.
- c) Coherent value network: For disruptive innovation to catch on, a coherent value network that includes suppliers, distributors, and vendors must accept it rather than reject it.

The following list of unique traits of disruptive technology was offered by Wallstreetmojo Team (n.d.) in addition to the others stated above.

- i. Innovation - The entire disruptive innovation process is centered on invention and the identification of better chances for the market system, which will eventually achieve wider acceptability.

- ii. Replace existing techniques - It frequently substitutes superior, newer, and more advanced means for the delivery of goods and services in lieu of outdated ones.
- iii. Cost-cutting — One of the main goals of technology adoption is to reduce costs while maximizing utility and profits.
- iv. New models - Disruptive innovation may lead to the development of new company concepts and business models, which would enhance income creation, improve product distribution and consumer behavior that deviates from conventional patterns.
- v. Performance enhancement - As a result of the efficiency of the work completed and improved performance attracting more clients, exceeding their expectations, and improving the relationships between service providers and clients, this could lead in a performance boost.
- vi. Uncertainty - Due to the disruptive innovation, it is also marked by a certain amount of unpredictability.
- vii. User-Centric - The newly introduced technology is primarily intended to improve user experience and puts a greater emphasis on user demands and preferences.

Studies like Adner (2002), Adner and Zemsky (2005), Govindarajan and Kopalle (2006), Hüsig et al. (2005), and Mount (2012), among others, have shown that the majority of studies on disruptive innovation tend to concentrate on identifying and exploring prominent factors that could impact the process of disruption, which cuts across its direct determinants and also its potential moderating factors that could influence the rate at which such disruption innovation may occur. Numerous more research, including those by Christensen (1997), Henderson (2006), Lucas and Goh (2009), Ansari and Krop (2012), and others, examined the connection between disruptive innovation and probable failures among organizations.

In contrast to the assessment of disruptive innovation, the current study focuses on analyzing disruptive innovation, with special attention paid to Fintech start-ups and how their services in the provision of technology have affected the operations of traditional banking in Nigeria. The idea that Fintech disruptive innovation might have an impact on how Nigeria's traditional banking sector functions is not a new one.

According to Wallstreetmojo Team (n.d.), Fintech disruptive innovation effects on society are as follows:

- i. It has the natural ability to completely transform the industrial landscape by first introducing better and new models for business processes and activities, as well as by encouraging competition and bringing about revolution in the overall process of manufacturing, delivering, and even in the consumption of goods and services in society.
- ii. It also brings about new opportunities for technical advancement in several industries, including healthcare, transportation, and communication, among others.
- iii. By replacing it with superior alternatives that might be automated, relatively simple to use, or both, it also presents a challenge to the workplace environment.
- iv. It generates new employment as a result of the development of new and appropriate skills, particularly in the application of cutting-edge technology.
- v. It might eventually result in the replacement of outdated services and goods with more potent, modern options that might also be easier to use.
- vi. It has the capacity to accelerate economic growth thereby, creating new entrepreneurial endeavour, which in turn might eventually result in flexible employment opportunities, an industrial revolution and development. As a result, it encourages new avenues for economic and business growth.
- vii. It also provides access to better information, especially by improving the educational system and its offerings through the development of better learning platforms and content. Additionally, it offers flexible opportunities to reach a wider population that resides in remote and difficult-to-reach areas.
- viii. It might also assist in the development of a tailored and practical solution for the population's goods and services that could meet their wants, thereby reaching a larger audience and expanding the customer base for boosting sales and revenue production.
- ix. It might aid the health industry by advancing technology, which might lead to better options and better methods for diagnosis and treatment.
- x. There may also be an increase in international trade, communication, and social media, among other things, as it will be much simpler for people to connect with one another, regardless of distance, which will help with information sharing and cultural exchange on a global scale quickly.

However, despite the enormous benefits and impacts of disruptive innovation, privacy and security are a key concern with such disruptive innovation and a major drawback. This is due to the possibility that a technology upgrade could result in cybersecurity issues,

unauthorized use, and access to confidential and sensitive data, though little is known about the likelihood that it will happen, particularly in the Nigerian banking sector. This knowledge gap is a significant one that this study aims to solve.

2.1.2 Theories of innovation as a Learning process

According to Christensen et al. (2018, p. 1076), disruptive innovation has a history in intellectual thought and potential future directions. The use of innovation theory is a crucial innovative process that may be utilized to improve learning, especially in organizations that exhibit a level of originality and an atmosphere that encourages innovation in the educational system. Regarding the use of innovative theory in organizational systems, it can be said that the inventive process focuses on three key areas: the socio-economic, psychological, and organizational-regulatory. These three key aspects help identify the environment and circumstances that may have a favourable or negative impact on the innovative process (Christensen et al., 2018, p. 1077).

Additionally, the organizational actions also embrace the innovation theory into its framework and have the potential to produce innovations. Two viewpoints, as described by Christensen et al. (2018, p. 1047), that could also be used to integrate innovative theory into a system are as follows:

- a) The theory of pedagogical innovation Innovative: It focuses on specific innovations made to the educational system. It pertains to the restructuring, modifying, improving, and changing of the educational system, or it may work in discrete segments, presenting new traits and features that have new laws, structures, models, approaches to learning, and forms of comprehensive linkages, among other things. The use of personal and creative processes to plan and provide educational processes to people in order to promote the development of creative abilities, self-learning skills, and self-improvement, among other things, is referred to as pedagogical innovation (Mikheev & Pankova, 2021).
- b) Innovative learning: This refers to a particular kind of mastering in the body of knowledge that results from intentional, purposeful actions based on sound research in the educational process. The learning system in the educational system is currently being replaced and supported by innovative learning. Therefore, when educational aims

undergo change, the education system is seriously responding to the transition by reflecting numerous innovative learning approaches, including online learning and the application of artificial intelligence, among others, to higher stages of development. The term "innovative learning" refers to the kind of education that frequently prompts original ideas and adapts to new technological advancements in the current social and cultural environment.

The theory of innovation in enhancing learning, according to Peters (2020, p. 1018), affects several aspects of modern development. Through the introduction of problem-based learning in architecture, De Graaf and Cowdroy (1997) explored the theory and practice of learning innovation and found that the theory of innovation could be used to establish a problem-based learning environment. Although some recent innovative technologies have failed and failed to produce better results, the theory of innovative learning does not render the old ways of system ineffective, necessitating the use of traditional techniques and innovative technologies for learning to increase productivity where necessary. Because of this, each system and approach work best in circumstances where it is necessary to use any to produce outcomes that are suitable, effective, and efficient. Idoko (2023) pointed out that traditional banks must learn to thrive in a changing environment, which indicates that they must act rapidly to consumer and market demands.

2.1.3 Types of Disruptive Innovation

Based on its origin, disruptive innovation can be categorized as follows (Wallstreetmojo Team, n.d.).

1. Low-end disruptions:

This form of disruptive innovation first targets less profitable customers with a low-cost model as it enters the market. Through disruptive innovation, it gradually increases its potential, moves up the ladder, and targets the most lucrative clients, leading to a complete transformation of the system. Such innovations frequently have trouble breaking through to mainstream consumers right away. To do this, new market entrants would have to compete, especially with the existing businesses in the market system, to earn recognition and market share.

Oftentimes, when they first enter the market, they are unable to produce a product of sufficient quality to satisfy customers' needs. However, over time, and thanks to the disruptive innovator, they become able to target certain market segments at the low end of the market that the more established companies view as less profitable customers. As a result, the new player uses new technology to disrupt the market system and develops a low-end product that satisfies low-end consumers' needs at a lower cost. Eventually, they steadily advance, raising profit margins by concentrating on the market's more demanding consumers.

Giving business loans to women-owned firms with 100% ownership at a lower interest rate than normal is an example of a low-end disruption. This was done with the intention of helping small traders, market women and the economy. However, over time, the emphasis switched to all women in business with a minimum of 20% firm ownership. This resulted in improved profits for the Nigerian banking sector in the long term as there was an increase in loans secured and financial inclusion (Wezel & Ree, 2023, p. 7).

Another example of a low-end disruption can be seen in the online bookselling mechanism, since it tends to target the book market system's underside and offers books online for less money to potential buyers who want to decrease costs rather than the luxury of going to the bookshop. However, as time went on, online booksellers concentrated on courting high-end clients, which ultimately increased their profits. As a result, traditional bookselling is currently facing significant challenges in the market as a very high percentage of people are switching to online platforms to benefit from the online experience (Wallstreetmojo team, n.d).

2. New-Market Disruptions

The new-market disruptions effectively create a market by determining potential clients and their needs, eventually converting them to loyal customers. This can be done by providing a more affordable or more accessible product, in which case the disruptive company establishes a new market within the existing market system. An example of a new market disruption is the introduction of personal computers to education. When mainframe computers first entered the market, they were primarily for huge corporations because they were so expensive, complicated, and large. However, personal computers and minicomputers took advantage of this unfilled market structure gap after seeing it. This is how modern computers

have evolved and become popular in the market, and it is thanks to this that mainframe computers are a thing of the past.

Another illustration is the introduction of mobile banking agents to serve the unbanked sector in the Nigerian banking industry. Many people were unbanked because they lived in remote rural areas, lacked financial literacy, or had insufficient documentation to open an account, but with the introduction of agent banking, this untapped market was harnessed, which produced enormous results and profits (Wezel & Ree, 2023, p. 5).

2.1.4 Disruptive Innovation: Key Success Factors

The critical success elements in disruptive innovation have been identified by numerous studies. The Atlantic Monthly Group (2016) outlines and explains three essential elements for corporate transformation success in disruptive times as follows:

- a. **Customer-centricity:** Only 41% of firms identify shifting consumer demographics, consumer behaviour, and consumer expectations as a primary source of insights and trends for business transformation strategy. However, just 16% of corporate executives are aware that the disruptive generational transition is driving the shift in consumer behaviour and that this could threaten the current business model in the future. Therefore, it is imperative to reevaluate and change the customer experience while concentrating on their demands and a clear grasp of the needs of future potential customers. This implies that businesses should listen to their customers to learn what they value and want in order to increase organizational profit.
- b. **Incorporate continuous innovation into the business:** Organization executives and leaders should continuously focus on innovative culture and structure within the organizations to be able to develop long-lasting competitive advantages. Business executives must therefore have a strong understanding of customers current and future needs. In order to deliver better, more trustworthy business values, and to guarantee a greater return on investment through progressive innovation, businesses must also learn how to provide the greatest technology; as a result, they must become faster and smarter. Additionally, corporate executives need to have a comprehensive understanding of the market to be able to foresee the different disruptive developments that will take place, giving them a significant competitive advantage. This suggests that corporate

executives must reform their organizations and implement operational models that make use of technological tools to promote improved goods and services while allocating the necessary resources and power to make decisions. This is because disruptive innovation is a crucial indicator of organizational competency and a top goal that may boost businesses' ability to compete in the market system.

- c. Developing the ability to thrive in a changing environment: Senior executives and management must be aware of and receptive to market innovations in their respective businesses in order to transform their operations and keep up with the most recent developments in the market system.

Additionally, Piolet (2023) looked at the following six crucial success elements for business innovation:

- i. Recognize the always changing environment: Business executives must constantly be aware of the constantly changing environment of the market system since threats and competition in business might come from unexpected sources.
- ii. Effective Leadership: Innovation depends on the correct leadership in addition to funding, having the appropriate technology, a clear plan, and processes. Without effective leadership, organizations would lose the proper vision necessary for proper development.
- iii. Acknowledge that innovation is global: Businesses may not be able to adopt new ideas if they only have a localized understanding of the market system; as a result, a worldwide approach to innovation strategy is required.
- iv. Explore the startup businesses: Business innovation is all about internal company change, but it's still important to comprehend and follow the startup ecosystem. One should also work with accelerators to be able to see who is innovating in the market and how to maintain and enhance internal business processes.
- v. Organizational Culture: stronger leadership necessitates stronger organizational culture, as substandard organizational cultures have the potential to destroy businesses.
- vi. Act quickly: Businesses and organizations must act quickly to adopt innovations because if they are found lagging, smaller and more agile businesses may appear out of nowhere with more knowledge and adopt the innovation in the market system.

2.2 Fintech and the disruptive innovation on traditional banks

Dexnovaconsulting (2023) asserts that due to the rapid growth of technology and the emergence of FinTech, the financial environment is constantly undergoing significant transformation. FinTech, which stands for "financial technology," is the umbrella term for a variety of cutting-edge products and services that aim to improve the customer experience by reshaping the way the financial system operates. Particularly in sectors where traditional banks shown a relatively poor innovation pace, FinTech startups concentrate on identifying gaps in the market system. Such innovations, such as robo-advisors and mobile payment platforms, among others, have a resonant effect on traditional banks, forcing them to rethink better new approaches for the supply of financial services in the interest of improving client experiences (Odu 2022, p. 3).

Due to the current demand from customers for a better experience, the use of digital payments and mobile banking platforms are significant disruptive innovations that have caused a shift in customer preferences (Odu, 2022, p. 7). As a result, traditional banks are now investing heavily in digital infrastructure to keep up with FinTech offerings. Additionally, FinTech has challenged the traditional lending practices in the traditional banking system by redefining the landscape of credit and lending in the banking industry, for example, through the usage of peer-to-peer lending and alternative credit scoring (Dexnovaconsulting, 2023).

Additionally, Pattak (2023) has seen a significant threat to traditional banking models brought on by Fintech, allowing users to obtain financial services in a more effective, economical, and customized manner. The ability of customers to make payments seamlessly, securely, and more affordably has allowed fintech companies to significantly disrupt traditional banking practices in the area of digital payments. Because of this, bank customers could conduct transactions utilizing their mobile wallets, contactless payments, and digital currencies. Peer-to-peer lending has also challenged the traditional banking model, leading to the creation of platforms that connect investors and borrowers directly. This has greatly facilitated direct credit access for consumers, such as individuals and small businesses, as well as increased returns for investors (Pattak, 2023).

Through the development of investment platforms that are more accessible, user-friendly, and charge cheaper costs than traditional investment firms, the use of online investment platforms has additionally disrupted traditional banking firms (Pattak, 2023). Customers may

invest easily and transparently in a range of goods, including stocks, bonds, and alternative investments. FinTech has revolutionized traditional banking by bringing several solutions that tend to benefit consumers, including greater branding, more customer-centered approaches, and higher product values (Spdload, n.d.). The provision of better customer support to users through chatbots, alternative credit scoring, and payment gateways are other examples of disruptive advances in the field of fintech (Spdload, n.d.).

As a result of growing competition from Fintech firms that provide services that are more appealing to clients, Pattak (2023) found that the growth of Fintech has substantial repercussions for the traditional banking business. To accomplish this, traditional banks must change to keep up with new innovations by embracing the many forms of digital technology that might be implemented and used to enhance customer experience and provide innovations for their business models. Partnering with Fintech firms is a significant potential strategy for traditional banks. This could lead to the adoption of cutting-edge products and services offered by Fintech, such as the usage of peer-to-peer lending platforms, blockchain technology, robo-advisors, and digital wallets to capitalize on the brand recognition and leverage on existing customer base and attract in new ones through product and service innovation offerings (Odu, 2022; Pattak, 2023).

Fintech startups continue to gain momentum and disrupt the traditional banking landscape in Nigeria, the adoption of Fintech services among Nigerian consumers has seen a considerable surge due to several factors.

- Firstly, the country's large unbanked and underbanked population represents a lucrative market for Fintech companies seeking to extend financial inclusion through digital channels.
- Secondly, the increasing penetration of smartphones and internet connectivity has made Fintech services more accessible to a broader audience, even in remote areas.
- Thirdly, they offer cheap, faster, and more convenient technological solutions in financial services.
- Lastly, the growing youth population, with a high percentage of tech-savvy individuals, has enthusiastically embraced digital financial services such as mobile banking, peer-to-peer lending, blockchain-based solutions, and artificial intelligence. These startups have successfully disrupted various segments of the financial services industry.

Compared to traditional financial services, fintech generates fast revenue, provides quality service, and reduces expenses that reconfigure the financial industry, thus stabilizing the financial system (Shin & Choi, 2019).

2.3 Innovative strategies by traditional banks

Keerio (2023) conducted a study on "Revolutionizing the Banking Industry: Strategies for Innovative and Profitable Banks" and found the following are some crucial tactics that banks might use to promote innovation and profitability:

- a. **Hiring Field-Specific Tech Experts:** This involves hiring people with specialized expertise in digital fields, such as cybersecurity, data analysis, and software development, in order to boost organizational effectiveness, foster innovation, and improve problem-solving skills. Employing workers with the necessary capabilities would enable banks to develop a skilled and creative workforce, which would improve organizational competitiveness and result in improved commercial outcomes.
- b. **Adopt artificial intelligence (AI):** Banks are employing AI to transform their banking activities and operations, and it gives users of the technology a stronger competitive edge. Banks might use AI to automate repetitive activities, evaluate client data, and spot fraud.
- c. **Incorporate blockchain technology:** Blockchain technology has the potential to completely transform the traditional banking sector by enhancing security, lowering transaction costs, and boosting efficiency. Blockchain technology has the potential to help banks enhance supply chain financing, trade finance, and cross-border payments, among other things.
- d. **Provide Personalized Products and Services:** By utilizing data analytics and AI, traditional banks may learn about the needs and preferences of their consumers and can then create services that are specifically geared toward meeting those demands.
- e. **Enhance the Customer Experience:** Banks must take use of technology investments that could deliver an improved customer experience and be utilized to set them apart from rivals in the market system. For instance, conventional banks might employ mobile apps to assist consumers with checking account balances, money transfers, and bill payment. Customers might also use chatbots to offer round-the-clock (24/7) support, lowering customer wait times and business operation turnaround time.

- f. Partner with Fintech Startups: By working with fintech startups, the traditional banking system can benefit from their knowledge and technology to provide new goods and services. Examples include using robo-advisory services, peer-to-peer lending platforms, and digital wallets.
- g. Invest in cybersecurity: As banks adopt new technologies, their vulnerability to cyberattacks and cybercriminals may increase. Therefore, it becomes imperative for traditional banks to continue to expand the flexibility of their cybersecurity investments to protect the data of their clients and guarantee the security of their operations.

2.4 Key success factors and problems

Disruptive innovation has flexible benefits and an impact on traditional banks, but it also has drawbacks that have been documented in the literature. For instance, Wallstreetmojo Team (n.d.) revealed that privacy and security concerns are a major drawback of disruptive innovation, and this has caused significant concern because the adoption and integration of digital technology in the business world could result in cybersecurity threats and unauthorized use and access to sensitive and private data.

Wingard (n.d.) assessed the top 10 banking sector difficulties and how to address them as follows:

- Rising Competition: The threat posed by disruptive FinTech innovation is enormous. Fintech firms might account for a \$4.7 trillion boost in annual investment from traditional financial bank system business revenue. The demand for this upward investment from established banks in Fintech has been engineered by new market entrants, prompting some financial institutions to form alliances or seek acquisition opportunities to bridge the banking sector's innovation gaps. This helps the traditional banking system maintain a competitive advantage; traditional banks and credit unions must learn from Fintech's, who owe their success to their success.
- Organization cultural shift: Disruptive fintech innovation has encouraged a shift away from traditional methods of managing banking operations and toward the use of technologies to streamline banking operations and improve customer experience. As a result, banks are utilizing technology-based solutions to address the banking industry's

challenges, which has resulted in the promotion of an organizational innovation culture in which technology may be used to optimize the current, established processes and procedures to achieve maximum efficiency.

- **Regulatory compliance:** Due to a high increase in regulatory fees relative to earnings and credit losses, this has emerged as a significant challenge for the banking sector. Banks must comply with a rising number of rules, which can put a significant strain on their resources.
- **Modifications to Business Models:** To move from the traditional banking system to the digital one, a new business model with an increasing cost of capital coupled with ongoing low interest rates, a diminishing return on equity, and reduced proprietary trading is necessary. All these factors put financial strain and commitment on traditional banking's profitability.
- **Rising Expectations:** As a result of the recent and current climate, as well as the fact that customers are now wiser and better informed than ever before, they have higher expectations for the personalization and ease of their banking experiences. Traditional banks must keep up with these rising consumer expectations since the shifting demographics of their client base provide a challenge to these heightened expectations.
- **Customer Retention:** Customer Retention: Maintaining customer loyalty is challenging as it involves knowing the customer and their expectations, followed by the implementation of a continuous customer-oriented improvement process. Customer experience might be difficult to evaluate, yet customer turnover is tangible, and customer loyalty can quickly deteriorate due to receiving an unsatisfactory service or products.
- **Outdated Mobile Experiences:** While traditional banks have recently customized branded mobile applications, this does not guarantee that they are utilizing them to their full potential. A typical bank's mobile experience should be fast, simple to use, have a fully featured operation such as live chat, voice-enabled digital help, be secure, and be subject to regular changes to satisfy the ongoing needs of clients and assure their contentment.
- **Security Breach:** Because security has emerged as a major and leading banking industry challenge, banks must invest in cutting-edge technology-driven security measures to protect customers' sensitive information and other resources by deploying several technologies such as: the Address Verification Service (AVS), End-to-End Encryption (E2EE), Authentication such as the use of:

- a) Biometric authentication: This security procedure often relies on an individual's distinctive biological attributes to validate the personality of clients such as fingerprints or face scan.
- b) Location-based authentication: This unique technique is used to establish a person's identification and the validity of their outward appearance by simply detecting them in a particular location.
- c) Out-of-band authentication: This is a procedure that calls for two distinct signals coming from two distinct networks or channels. For instance, banks may make use of this to create a one-time security code that customers would get through automated voice calls, SMS text message, or email and would need to enter in order to access their accounts and verify their identity.
- d) Risk-based authentication: This technique differs in the degree to which authentication procedures are performed in response to the likelihood that access to a specific system may expose it to security threats.
- Outdated Business Management applications: Companies who use outdated business management applications are unable to stay up with emerging digital technology. As a result, a solid, forward-thinking technological foundation is required for critical corporate evolution.
- Continuous Innovation: Because disruptive innovation is a continuous process, traditional banks may find it challenging to keep up with these changes. Benchmarking effective procedures, on the other hand, may provide valuable data that might assist banks in remaining competitive.

3 CASE COMPANY OF ACCESS BANK PLC

3.1 Overview of Access bank PLC

Access Bank Plc, one of the top full-service commercial banks in Nigeria serves more than 49 million customers worldwide through a network of more than 600 locations spread over three continents and 18 countries. Along with its branches in Dubai, China, Lebanon, and India, it also employs approximately 28,000 people in its operations in Nigeria. In addition, it has several other subsidiaries in other Sub-Saharan African nations as well as the United Kingdom (Access Bank PLC, 2023d).

Since receiving its banking license to operate as a commercial bank from the Central Bank of Nigeria (CBN) on December 19, 1988, Access Bank Plc., which has been in business for almost 35 years, has evolved from a small Nigerian bank into a leading financial institution in Africa. In addition, in 1998, Access Bank Plc. became listed on the Nigerian Exchange Limited. In terms of assets, loans, deposits, and branch network, it is currently among Nigeria's top five banks. This expansion has also been made possible by the firm's robust, long-term approach to client solutions and its dedication to providing cutting-edge advice (Access Bank Plc, 2023b).

Access Bank has received recognition from prominent domestic and international organizations in recognition of the bank's defining contributions throughout the African continent. They include the 2022 International Investors Award for "Best Environmental and Social Performance," the 2022 Finance Derivative Award for "Best Sustainable Bank Africa," the 2022 Euromoney Awards for "Best Bank in Nigeria," the 2022 Global Sustainable Finance Awards for "Outstanding Leadership in ESG-Related Loans, Africa," and the 2022 Global Sustainable Finance Awards for "Financial Leadership in Sustaining Communities, Africa." 2019 World Finance Award winners for "Best Mobile App in Nigeria" and "Best Digital Bank in Nigeria"

3.2 Market and operations of the bank

Access Bank is a financially diversified organization that combines a strong retail client franchise with a digital platform that offers a thorough understanding of corporate banking as

well as established risk management and capital management skills to improve customer experiences. With over 900,000 shareholders, including numerous Nigerian and international institutional investors, it also services its various market systems through four key business segments based on its customers segmentation: retail banking, business banking, commercial banking, and corporate banking services (Access bank plc, 2023c). Its business activities are outlined below:

1. **Retail Banking Division:** The retail banking division is further divided into personal banking and private banking, and it caters to wealthy individuals, affluent professionals, people who work in the corporate clients of the Group's value chain, as well as students, retirees, people who work for religious institutions, and petty traders.
2. **Business Banking Division:** Business banking division is focused on organizations and small to medium-sized businesses ("SMEs") with annual sales that does not exceed ₦1 billion. Its business strategy is centred on implementing a partnership and advising program for small and medium-sized enterprises.
3. **Commercial Banking Division:** The focus of commercial banking division is on federal government ministries, departments, and agencies, state and municipal governments, and corporations with annual revenue of ₦1 billion or more. Federal, State, and Local Governments are among its target markets, as are businesses involved in the value chain of Corporate and Investment Banking. This level specifically targets Asian businesses in significant industries, states, and cities, as well as businesses in the manufacturing, consumer goods, tourism, and leisure industries, as well as contractors in specific areas such as oil and gas, construction, and real estate.
4. **Corporate and Investment Banking:** This division in the bank focuses on multinational, well-structured, large domestic and foreign-owned businesses, as well as other financial institutions in the banking, microfinance banks, capital markets, pensions, and insurance sub-sectors with a minimum annual turnover of ₦20 billion and a risk rating that is within a certain range. It also focuses on the cement and construction industry, communications, manufacturing, and financial institutions sectors, as well as the upstream and downstream oil and gas, electricity, transportation, agriculture, and real estate sectors. It offers a wide range of financial services to consumers, including project financing, treasury, corporate finance, and structured finance.

3.3 Access bank and the implementation of new technologies

According to Sekits (2023), traditional banks are using cutting-edge technological solutions to improve the experiences of customers and enterprises. Ogbonna (2023), the Chief Executive Officer of Access Bank PLC, stated that although there has been a slowdown in the digital transition, this is primarily because of the costs associated with moving away from traditional techniques. In order to satisfy consumers' preferences and surpass their expectations, banks must adapt to their ever-changing needs. Additionally, Access Banks Plc has embraced innovation and digitalization through the facilitation of technology, undergoing a digital transformation in terms of the widespread use of digital banking, which has replaced the old banking procedures. Blockchain, data science and analytics, sophisticated algorithms, Artificial Intelligence, and Machine Learning are just a few of the cutting-edge technologies used by Access Bank Plc to deliver financial services with little to no human involvement (Ogbonna, 2023).

Ogbonna (2023) further pointed out that Access Bank Plc evolved into the most technologically advanced financial institution in Africa and the entire world, a feat that was made possible by constantly monitoring customer demands and the dynamic market. Access Bank Plc has also started using Access More, a banking super application that is unique from all other banking apps available on the financial market. It offers over 40 million consumers in Nigeria, Zambia, Kenya, South Africa, Sierra Leone, Guinea, Rwanda, The Gambia, Cameroon, and Ghana the greatest mobile banking experience imaginable. In addition, the following additional features are made and cut across:

- Annex Loyalty
- Account Officer Rating Enhancement
- Customer Information Update
- Account Status View
- ATM Cardless Opt-In
- Digital Reference Letter

Additionally, this has led to Access Bank Plc being recognized as one of Nigeria's top financial organizations with superior technological capabilities and creative market practices (Access Bank PLC, 2023a).

3.4 Access bank and fintech

According to Bajomo (2021), the Executive Director of Information Technology and Operations at Access Bank, the bank has formed several partnerships with fintech Nigeria in an effort to promote the growth of the fintech ecosystem and the use of technologies in society, particularly in the Nigerian financial system. Eleanya (2022), citing Wigwe (2022), the former CEO of the Access Bank Group, said that fintech is a logical step in the bank's aspiration to build a globally connected community and ecosystem. This is in line with the mission to build and sustain one global platform, which could be open for anyone to join wherever people can be connected to exceptional technology opportunities.

The following are the main objectives and purposes of the innovative disruptive FinTech technology in the traditional banking system (Bajomo, 2021):

- To act as a significant platform provider for start-ups in the technology sector that have cutting-edge technologies and solutions that have a high potential for growth and profitability.
- Create a centre of excellence for technology and innovation in the financial services with the help of innovators, leaders, and important FinTech businesses.
- Benefit from technological integrations and its application with FinTech-driven businesses to enhance SMEs', merchants', and consumers' supply chains.
- To create chances for banks to make money through the sale of assets, deposits, and acquisition of potential customers.
- To develop and use talent, especially technological and creative talent, effectively.
- Enabling Access Bank to play a significant role in Africa's FinTech ecosystem, accelerating the growth of digital revenue in both Africa and the rest of the world.

Bajomo (2021) noted that Fintechs can assist banks, such as Access Bank, reach over 40% of customers in Nigeria who are financially excluded; that is, people who are untapped and excluded from the financial market system in thus, banks would be able to create an inclusive economy where individuals can contact their bank through their mobile devices and get access to different services instantly, increasing their customer satisfaction level in using the bank services.

Additionally, to further improve the limitless opportunities offered by the Fintech ecosystem, Access bank group established the Africa Fintech Foundry (AFF) as a project with the goals of resolving industry issues, identifying, and accelerating innovative startups, and gaining international recognition as the leading technology hub in Africa (Kanali, 2022).

The Chief Executive Officer of Access Bank PLC, Ogbonna (2023), also stated that Access Bank is rapidly enhancing its digital solutions thanks to the partnership and services offered by the Africa Fintech Foundry (AFF), which is a significant Access Bank initiative to maximize the opportunities of digital technology and contribute to the development of FinTech across Africa in order to improve financial bank services in Nigeria and provide customers with a better experience. The bank has increased its investment even further to better provide developers with the information and assistance they may need to create innovative finance solutions that the bank's clients may benefit from (Kanali, 2022).

4 RESEARCH METHODOLOGY

4.1 Research design

Research design is a major part of any study and tends to assist in providing how the study would be carried out and gives precision to and assistance to be able to complete the study. The choice of selecting an appropriate research design for any study is informed by the methodological paradigms, and research strategies and methods (Shorten & Smith, 2017; George, 2022). In a case study research design, the research strategy deployed is the Descriptive Research survey.

According to Bhat (n.d), descriptive research describes the characteristics of the population or phenomenon that is studied and focuses more on the “what” of the research subject than the “why” of the research subject. It also deploys quantitative research methods to collect quantifiable information for statistical analysis of the population sample.

However, in this study, the research strategy deployed is a combination of both the qualitative and quantitative research methods. A combination of both methods is used because it allows for a thorough comprehensive analysis of the case study, provide a comprehensive understanding of the disruptive innovation of Fintech start-ups on the traditional banking landscape in Nigeria by Access Bank PLC, possible impact of these disruptive innovations by FinTech on Access Bank PLC and possible benefits of these Fintech startups technologies on their operational activities in Nigeria banking industry.

4.2 Research Approach

Certain paradigms are used to explain the philosophies of research methods. Paradigm, in this context implies some set of assumptions, values and concepts that are commonly shared in a community, which constitute the unique pattern to view reality (Creswell, 2012; Khatri, 2020). According to Khatri (2020), research paradigm implies certain theoretical or philosophical foundations for a research work, and it is approached as a research philosophy. In the research industry, prominent research focuses on the use of quantitative, qualitative, or mixed methods. (Creswell, 2012; Khatri, 2020).

The quantitative method assumes that certain phenomena in the study obey the natural laws, hence, could be subjected to quantitative reasoning thereby using quantitative data and analysis to explain such phenomenon hence, information are obtained through the use of questionnaires. On the other hand, the qualitative method assumes that phenomena peculiar to a study need not to obey natural laws, hence, could be subjected further to interpretation based on the conviction and/or understanding of relevant people with respect to the reality surrounding such phenomenon of interest (Sutrisna, 2009; Khatri, 2020) hence, information are obtained via the interview guide. The mix method which uses both the quantitative and qualitative methods is widely deployed for mixed method research such that harmonizes the two quantitative and qualitative methods in a study (Creswell, 2012; Khatri, 2020) hence, one could use the questionnaire and interview guide to collect information from respondents.

Research paradigm should be done systematically and scientifically, and the deployment of a particular research paradigm is informed by the research phenomena under consideration driven by the research objectives and questions of the study (Pollark, 2007; Khatri, 2020). Therefore, this study adopts quantitative and qualitative methods which includes the use of questionnaires and interviews to collect data and information needed for this study.

4.3 Data Collection Method

The use of the quantitative and qualitative methods directs this study to deploy and use the questionnaire and interview for data collection. The questionnaire is structured into four sections which are the demographic characteristics section, the technologies adopted by access bank section, Fintech technologies start-ups adoption section and the operation of the traditional banking system that Fintech start-up has affected section.

Also, information and items in this section would be captured an open and closed ended format to further give room for subjective responses from the respondents of the study, while others would be captured using either a two-likert scale of yes or no or four likert scale of agreed, strongly agreed, disagreed, and strongly disagreed from which respondents would be allowed to choose one option. Also, the interview guide would provide relevant answers that focus on the research questions of the study.

The data obtained from the field would be subjected to analysis using the quantitative and qualitative method of data analysis. The quantitative study would use the frequencies and percentage, mean, mode, graphs, and charts where needed, coupled with the use of regression analysis to test the hypotheses of the study. The qualitative method would involve the use of interview and information would be recorded and transcribed, from which thematic analysis would be deployed to analyze the responses from the respondents and presented in the study.

4.3.1 Sources of Data

Data would be collected primarily using questionnaire and interview guide administered to respondents of the study. However, secondary sources would be deployed from various publications, financial report data, textbooks, and journal articles, to enable the study to achieve literature evidence that could be used to drive the study.

4.3.2 Procedure for Data Collection

The quantitative and qualitative data collection methods were deployed hence, information and data obtained would be analyzed using the quantitative and qualitative analysis techniques. The process of data collection using the qualitative aspect will involve interviews to gather insights from key stakeholders, such as Access Bank employees, FinTech startup founders, and possibly customers, analysis of publications, textbooks and journal articles related to the study while the quantitative aspect may involve data collection from financial reports, market data, and possibly customer transaction data if available.

Informed consent and data privacy of potential respondent of the study would be considered, copies of the questionnaire would be administered to the employees of the selected banks and retrieved questionnaires are then collated after they are filled by the respondents and to be subjected to analysis for this study. Also, respondents are slated for interview when due fit so as not to disturb their work schedule and information obtained would be recorded and transcribed for analysis purposes.

4.4 Reliability of the study

The research instrument would be further subjected to validity and reliability. To ensure the validity of the research instruments, the instruments were structured in accordance with the constructs embedded in the research objectives and questions of the study. In addition, the face, content, and construct validity of the instruments are ensured by the researcher and the researcher's supervisor. Usually, the content validity ensures that statements or questions in the research instruments fully capture the variables or constructs of interest while the constructs validity ensures that all constructs or variables of interest in the study are fully included in the research instruments where appropriate.

With regards to the reliability analysis, I would employ the use of established measurement scales and instruments for surveys and interviews to enhance the consistency of responses, cross-checking, and triangulation of data from multiple sources (e.g., interviews, surveys, financial reports) to confirm findings, ensuring the research process is well-documented and transparent, allowing for replication by other researchers and finally ensure the use of statistical analysis techniques to assess the reliability and validity of quantitative data.

5 EMPIRICAL AND DATA ANALYSIS

This chapter presents the results of the study and provides a discussion of the findings with respect to the literature review of the study. Therefore, this chapter is divided into three major sections namely the data analysis, analysis of the effect of fintech innovation on Access bank and the discussion of the findings section.

5.1 Data Analysis

The data obtained for this study will be further analyzed to review the results to the objectives and research questions of the study and the presentation of the interview responses in four major subsections which are the presentation of the demographic characteristics of the respondents used in this study, analysis of the technologies adopted by Access bank, analysis of Fintech adoption by traditional banks and analysis of the effect of fintech innovation on Access Bank.

5.1.1 Demographic Characteristics of the Respondents

This subsection presents the demographic characteristics of the respondents used in the quantitative aspect of the study. The demographic characteristics of the respondents are presented in Table 1 and in Figures 1–6 below using tables and charts to present and explain the number of respondents and percentage of the results of the respondents used in the study.

Table 1. Demographic Characteristics of the respondents.

Demographic Characteristics		No. of Respondents	Percent
Gender	Male	64	28.4
	Female	161	71.6
	Missing System	0	0
	Total	225	100.0
Age Group	Below 25 years	36	16.0
	26-35 years	92	40.9
	36-45 years	49	21.8
	46-55 years	25	11.1

	Above 56 years	16	7.1
	Missing System	7	3.1
	Total	225	100.0
Educational Level	SSCE	4	1.8
	OND	11	4.9
	HND	23	10.2
	BSc	136	60.4
	MSc	51	22.7
	Missing System	0	0.0
	Total	225	100.0
Marital Status	Single	74	32.9
	Married	90	40.0
	Divorced	31	13.8
	Separated	14	6.2
	Widowed	9	4.0
	Missing System	7	3.1
	Total	225	100.0
Religion	Christianity	129	57.3
	Islam	62	27.6
	Others	34	15.1
	Missing System	0	0
	Total	225	100.0
How long have you been working as staff of this company	Below 5 years	145	64.4
	6 - 10 Years	54	24.0
	Above 11 Years	22	9.8
	Missing System	4	1.8
	Total	225	100.0
How long have you been unemployed before your employment in this company.	Below 5 years	217	96.4
	6 - 10 Years	0	0
	Missing System	8	3.6
	Total	225	100.0
Have you worked before you were employed in this company.	No	24	10.7
	Yes	189	84.0
	Missing System	12	5.3
	Total	225	100.0

There are more females (71.6%) than males (28.4%) in this study, and respondents between the age brackets 26-35 years has the highest percentage (40.9%), while those above 56 years has the lowest percentage (7.1%). Also, respondents with BSc education qualification (60.4%) are more than other education qualification, as respondents with SSCE education (1.8%) has the lowest percentage in the study. This revealed that, on the average, respondents used for this study have BSc certificate, and are between the age brackets of 26 and 35 years and are more likely to be female.

Also, majority of the respondents are married (40.0%), with respondents who belonged to the widowed category having the lowest percentage (4.0%), About 57.3% of the respondents shows they are Christians while only 15.1% practiced other religions. This reveals that majority of the respondents are married and are Christians.

However, most of the respondents (64.4%) have worked in Access bank for below 5 years while only 9.8% have worked there for over 11years. This reveals that many of the respondents used in this study are new staff that have worked with Access bank for less than 5 years. To elaborate on this, further analysis was done using charts to present the results for the demographic characteristics of this study as presented below.

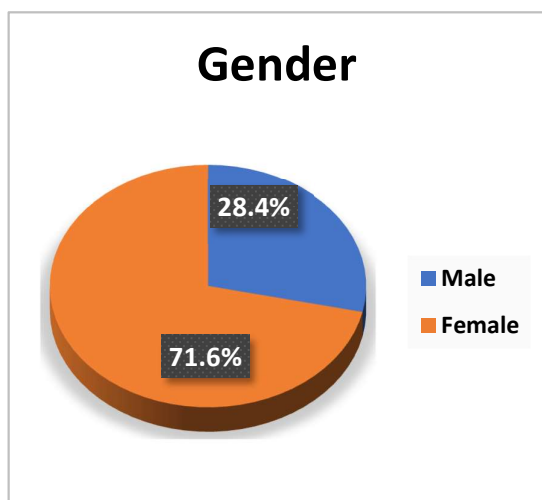


Figure 1. Gender of the respondents.

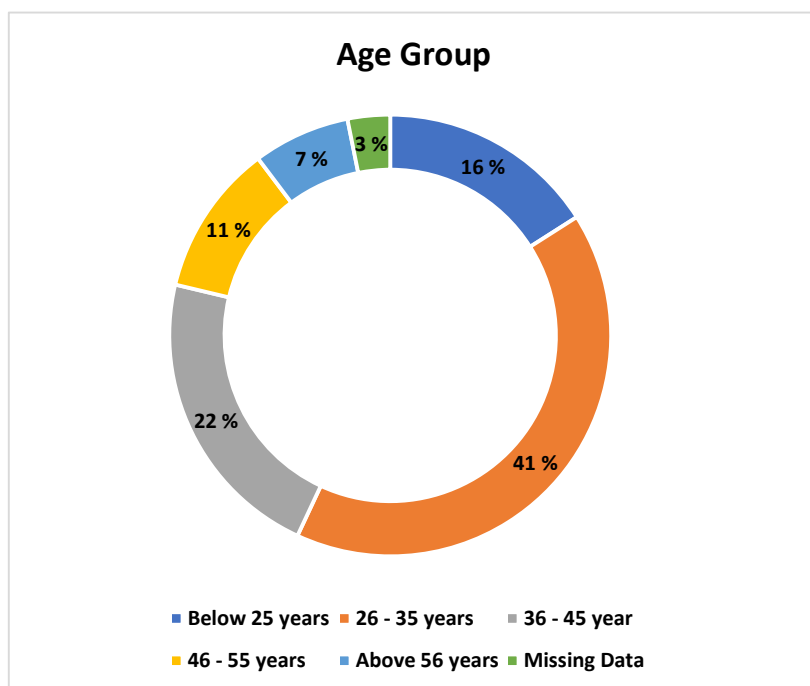


Figure 2. Age group of the respondents.

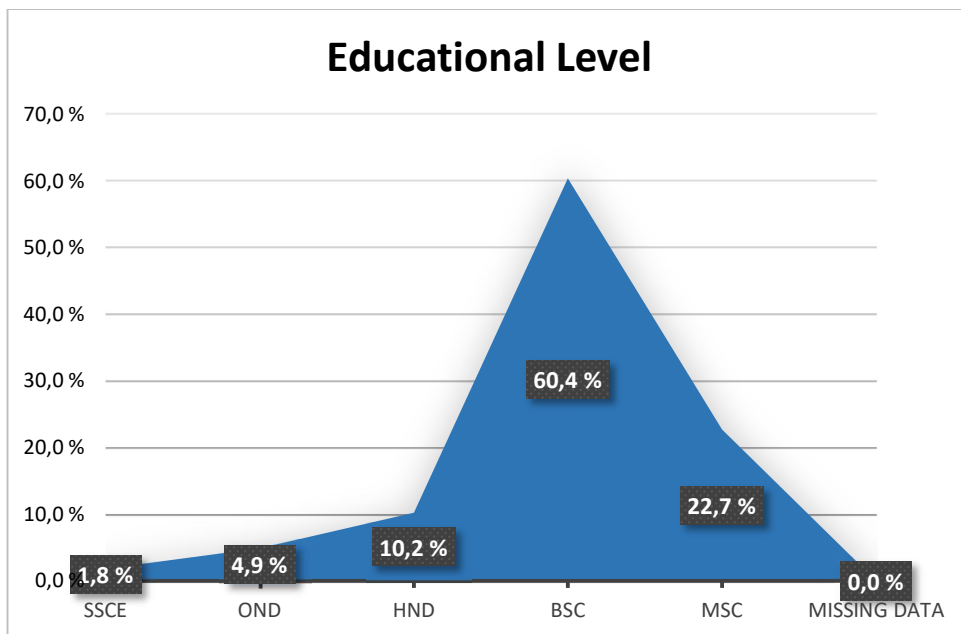


Figure 3. Educational level of the respondents.

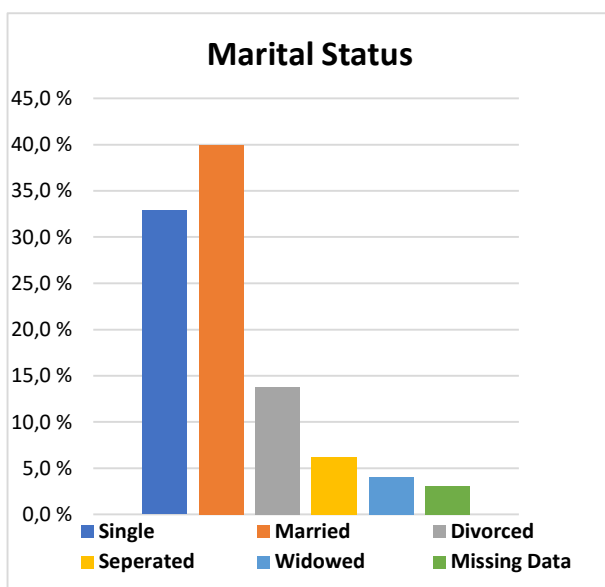


Figure 4. Marital Status of the respondents.

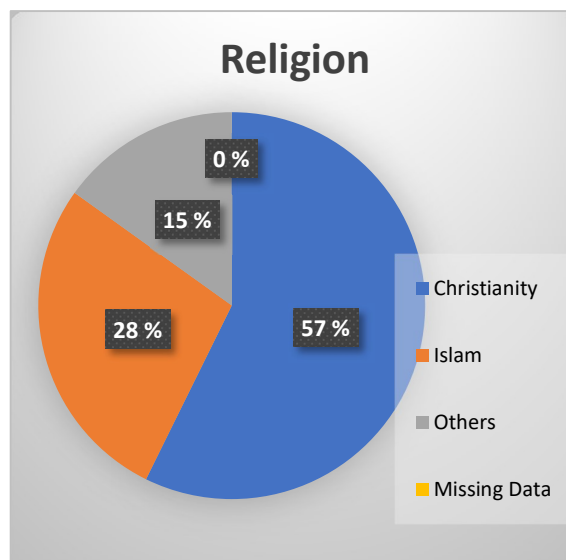


Figure 5. Religion of the respondents.

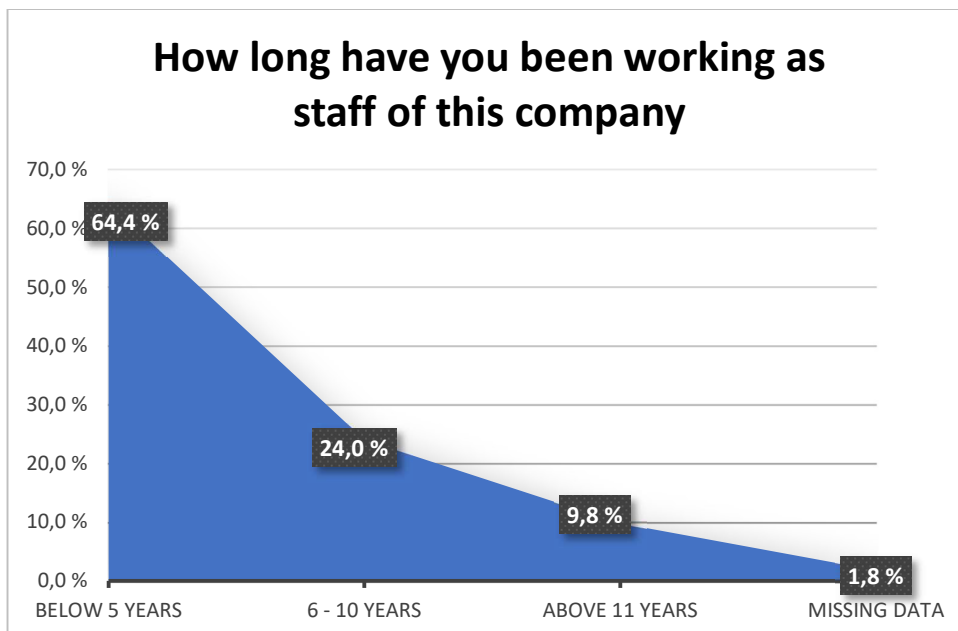


Figure 6. How long have you been working as a staff of this company.

5.1.2 Analysis of the technologies adopted by traditional banks.

Some of the technologies adopted by Access bank in response to Fintech innovation can be seen in table 2 based on the responses from the questionnaire by the respondents from the study.

Table 2. The Types of Technology Adopted/Deployed by Access Bank.

Technology adopted/deployed		No. of Re- spondents	Percent
Chatbots	No	13	5.8
	Yes	209	92.9
	Missing Data	3	1.3
	Total	225	100.0
Alternative credit scoring	No	27	12.0
	Yes	196	87.1
	Missing Data	2	0.9
	Total	225	100.0
Digital payments	No	16	7.1

	Yes	208	92.4
	Missing Data	1	0.4
	Total	225	100.0
Mobile app	No	19	8.4
	Yes	204	90.7
	Missing Data	2	0.9
	Total	225	100.0
Peer-to-peer lending	No	11	4.9
	Yes	213	94.7
	Missing Data	1	0.4
	Total	225	100.0
Online investment platforms	No	10	4.4
	Yes	214	95.1
	Missing Data	1	0.4
	Total	225	100.0
Digital wallets	No	21	9.3
	Yes	201	89.3
	Missing Data	3	1.3
	Total	225	100.0
Robo-advisors	No	6	2.7
	Yes	218	96.9
	Missing Data	1	0.4
	Total	225	100.0
Blockchain technology	No	53	23.6
	Yes	170	75.6
	Missing Data	2	0.9
	Total	225	100.0
Artificial Intelligence	No	54	24.0
	Yes	169	75.1
	Missing Data	2	0.9
	Total	225	100.0
Address Verification Service	No	4	1.8
	Yes	216	96.0

	Missing Data	5	2.2
	Total	225	100.0
End-to-End Encryption	No	25	11.1
	Yes	197	87.6
	Missing Data	3	1.3
	Total	225	100.0
Biometric authentication	No	34	15.1
	Yes	190	84.4
	Missing Data	1	0.4
	Total	225	100.0
Location-based authentication	No	16	7.1
	Yes	205	91.1
	Missing Data	4	1.8
	Total	225	100.0
Out-of-band authentication	No	24	10.7
	Yes	199	88.4
	Missing Data	2	0.9
	Total	225	100.0
Risk-based authentication	No	28	12.4
	Yes	193	85.8
	Missing Data	4	1.8
	Total	225	100.0

The information in table 2 reveals that, Access bank deploys several technologies for their services from Fintech Startups such as chatbots, alternative credit scoring, digital payments, Mobile app, peer-to-peer lending, online investment platforms, digital wallets, robo-advisors, blockchain technology, and artificial Intelligence. Other technologies deployed by Access bank are address verification service, end-to-end encryption, biometric authentication, location-based authentication, out-of-band authentication, and risk-based authentication.

Further analysis was done using charts to present the results of technologies deployed by Access bank in response to Fintech innovation.

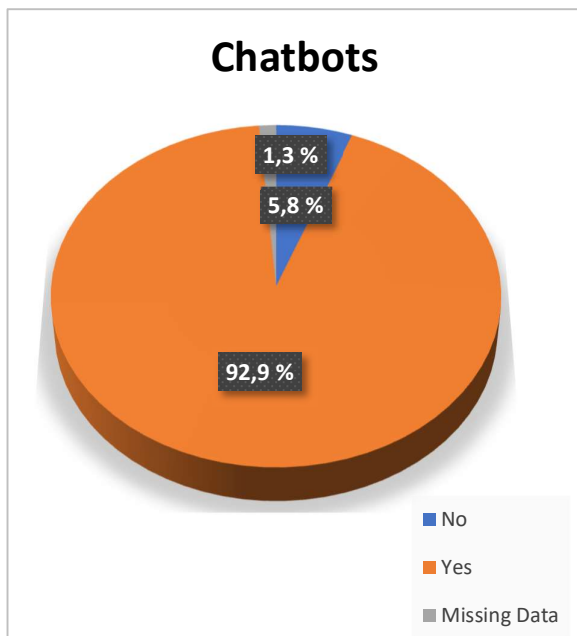


Figure 7. Use of chatbots.

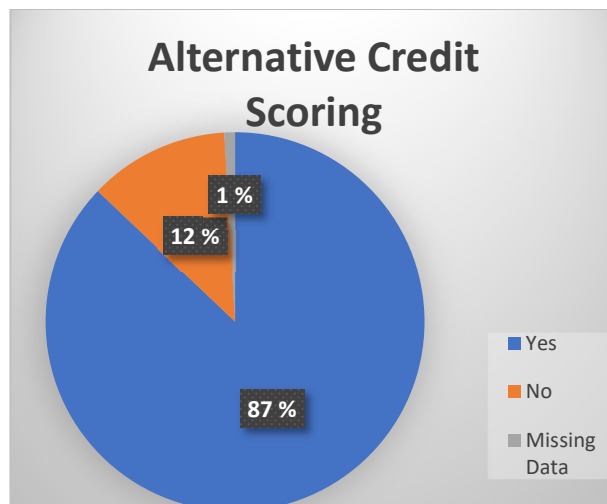


Figure 8. Use of Alternative Credit Scoring.

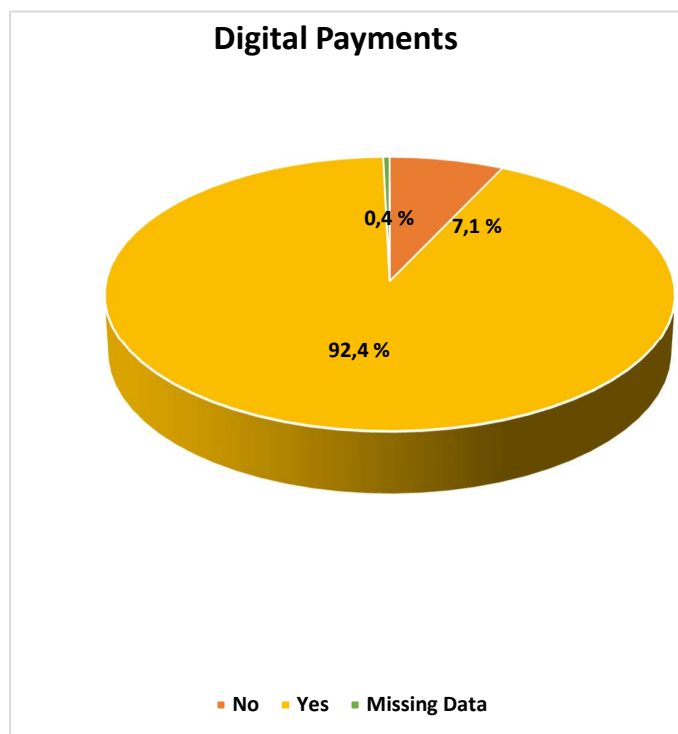


Figure 9. Use of Digital Payments.

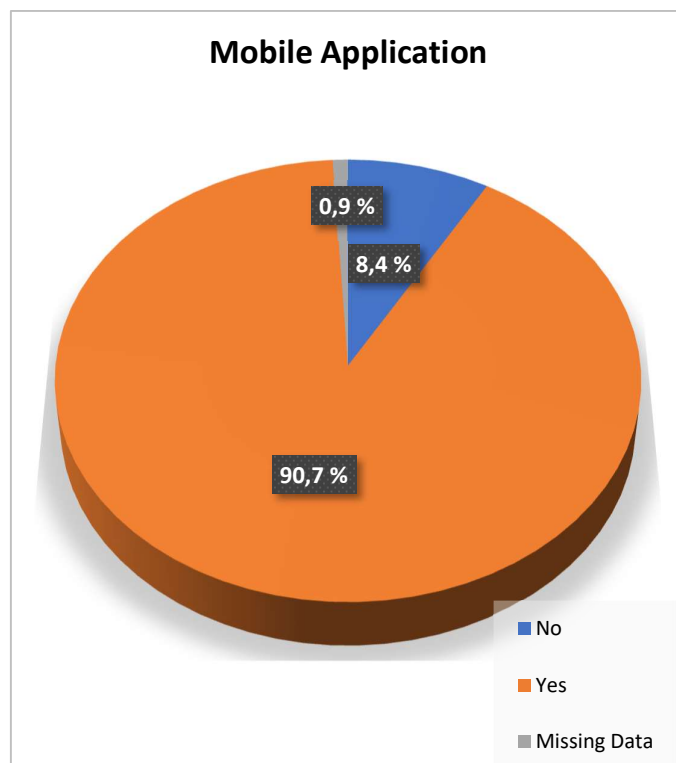


Figure 10. Use of Mobile Application.

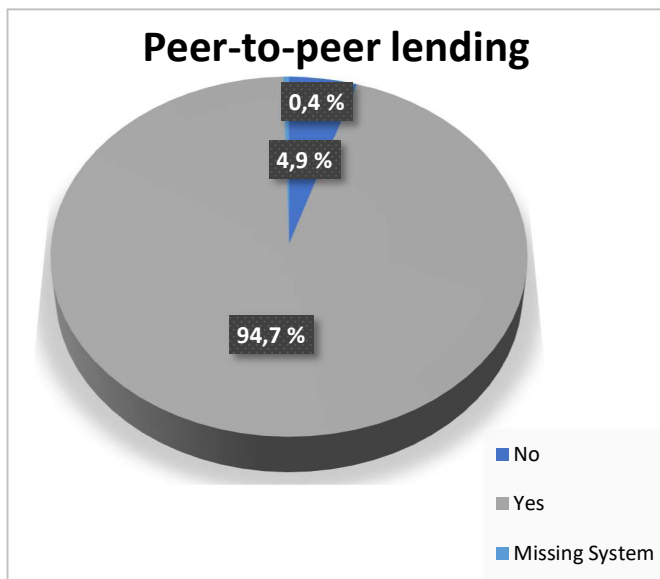


Figure 11. Use of peer-to-peer lending.

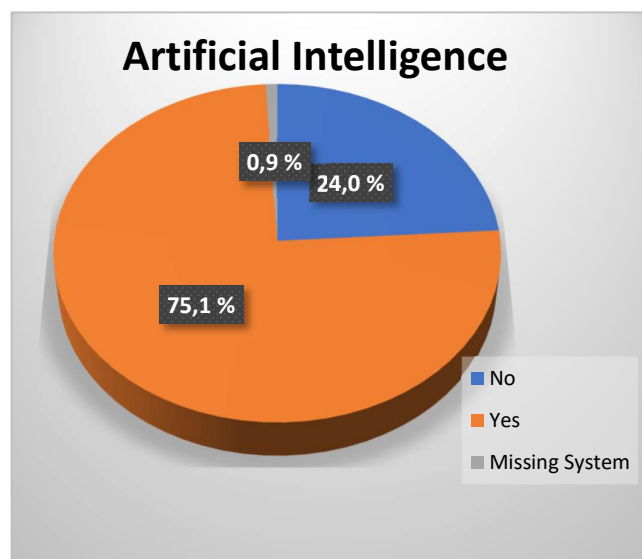


Figure 12. Use of Artificial Intelligence.

Figures 7–12 further reveal that over 92% of the respondents agree that Access bank deployed chatbots for their bank services, approximately 87% of the respondents use alternative credit scoring, over 92% of the respondents use digital payments, approximately 91% use mobile app, 94.7% used peer-to-peer lending, 95.1% use the online investment platforms, 89.3% use digital wallets, 96.9% use robo-advisors, 75.6% deployed blockchain technology, and 75.1% use artificial Intelligence for several bank activities to meet customers' needs. This study, as provided above means that Access bank to a very wide extent uses various technologies from Fintech startups to benefit and provide various bank services.

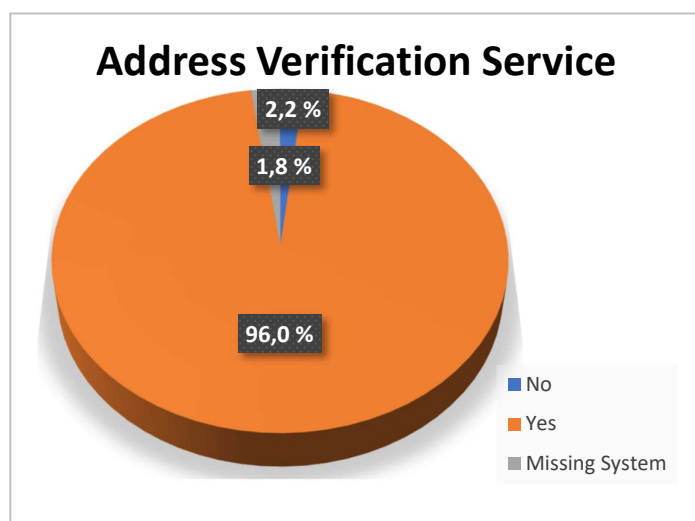


Figure 13. Use of Address Verification Service.

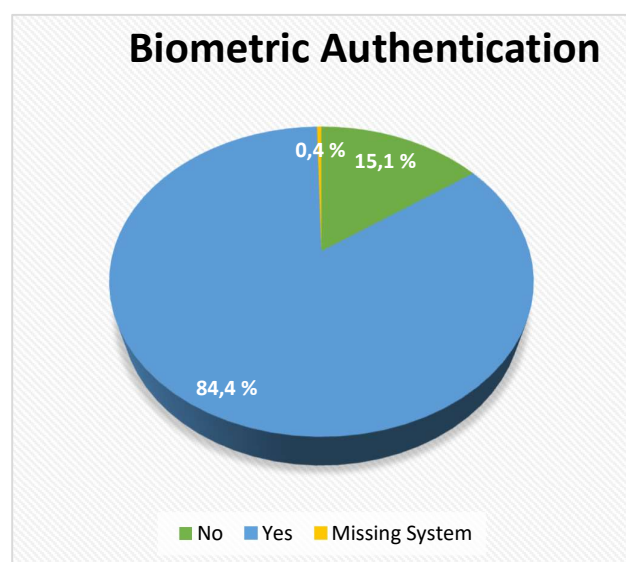


Figure 14. Use of Biometrics.

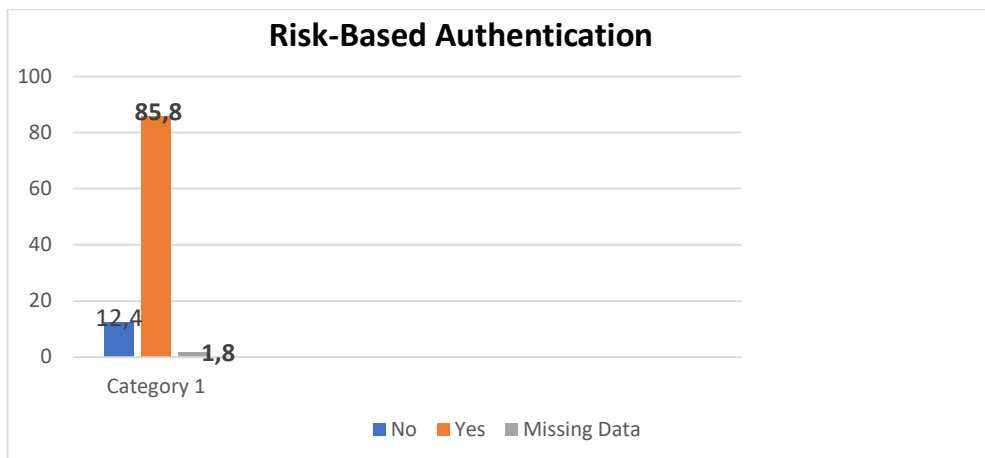


Fig 15. Use of Risk-Based Authentication.

In addition, Figure 13–15 shows that 96% of the respondents agree to the use address verification service as part of innovative technologies by Access bank, 87.6% use end-to-end encryption, 84.4% agree to the use of biometric authentication, 91.3% adopt the location-based authentication, 86.4% use out-of-band authentication and 85.8% agree that the bank uses the risk-based authentication.

The charts revealed that Access bank deploys several technologies from Fintech startups for enhancing their banking activities and services to their clients to enjoy and tap into the benefits that such technologies bring to business growth and development and the banking sector in general.

Also, the responses to the interview process, with respect to research question one was provided below.

“..., Access bank uses several Fintech technologies such as online investment platforms, digital payments, digital wallets. And others to enhance customers’ experience with the bank that would give long lasting benefits to our customers and enhance the competitive advantage of the bank” **(Male, Married, Between 36 and 45 years, MSc.)**

“Putting into consideration the extent to which tech is advancing in the global world, Access bank cannot just risk not tapping into such benefits for its customers especially when one note that, these services are made for the customers and the customers have several other banks out there. To this end, Access bank deploys wide array of Fintech startup such as *hiring field-specific Tech Experts, using Artificial Intelligence, Blockchain Technology, collaborate with Fintech startups, and*

several others to enhance the provision of their banking services to their customers.” (Female, Married, Between 26 and 35 years, BSc.)

5.1.3 Analysis of Fintech Adoption by Traditional Banks

This subsection will provide a brief analysis of the degree to which traditional banks (Access bank) are implementing Fintech technology using data from the questionnaire related to research question two. The data is shown in table 3 below.

Table 3. Extent of Use of Fintech Technology by Traditional Banks.

		Respondents	Percent
Use of Fintech for Incubation acceleration programs	very Low	42	18.7
	Low	29	12.9
	Moderate	17	7.6
	High	55	24.4
	very high	79	35.1
	Missing Data	3	1.3
	Total	225	100.0
Use Fintech Investing via internal venture funds.	very Low	43	19.1
	Low	37	16.4
	Moderate	9	4.0
	High	57	25.3
	very high	77	34.2
	Missing Data	2	.9
	Total	225	100.0
Partnering with fintech companies	very Low	20	8.9
	Low	39	17.3
	Moderate	11	4.9
	High	65	28.9
	very high	89	39.6
	Missing Data	1	.4
	Total	225	100.0
Acquiring Fintech companies	very Low	25	11.5
	Low	43	19.1
	Moderate	17	7.6
	High	65	28.9
	very high	73	32.4
	Missing Data	1	0.4
	Total	225	100.0
Launching own Fintech subsidiaries	very Low	24	10.7
	Low	33	14.7
	Moderate	11	4.9
	High	68	30.2
	very high	87	38.7

	Missing Data	2	0.9
	Total	225	100.0

The data presented in Table 3 indicates that Access Bank makes extensive use of Fintech to improve its banking operations and services to a diverse range of clients, hence strengthening its competitive edge in the banking industry. This is further illustrated through the provision of charts to provide a better explanation of the extent to which the bank uses Fintech for their banking services.

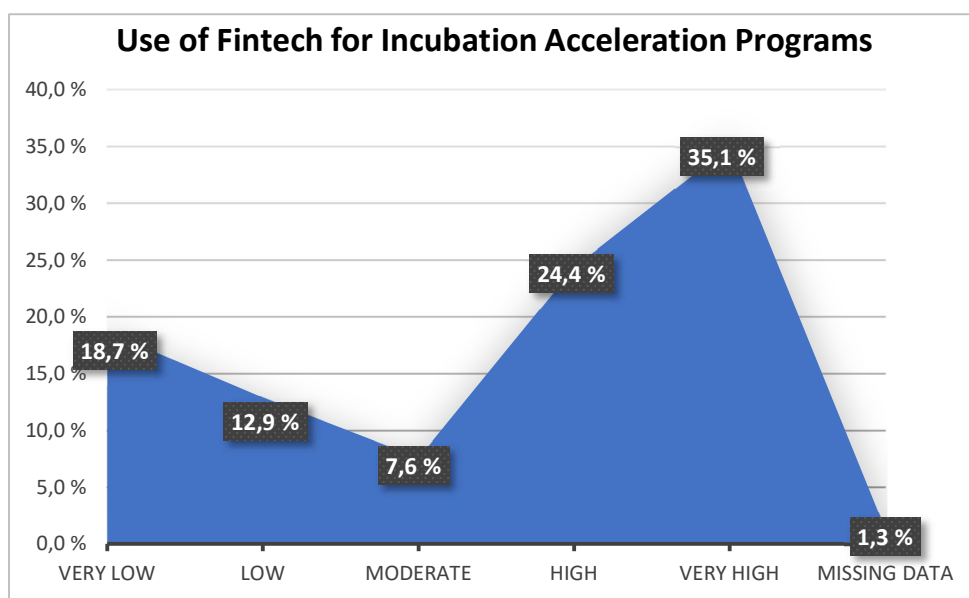


Figure 16. Use of Fintech for Incubation Acceleration Programs.

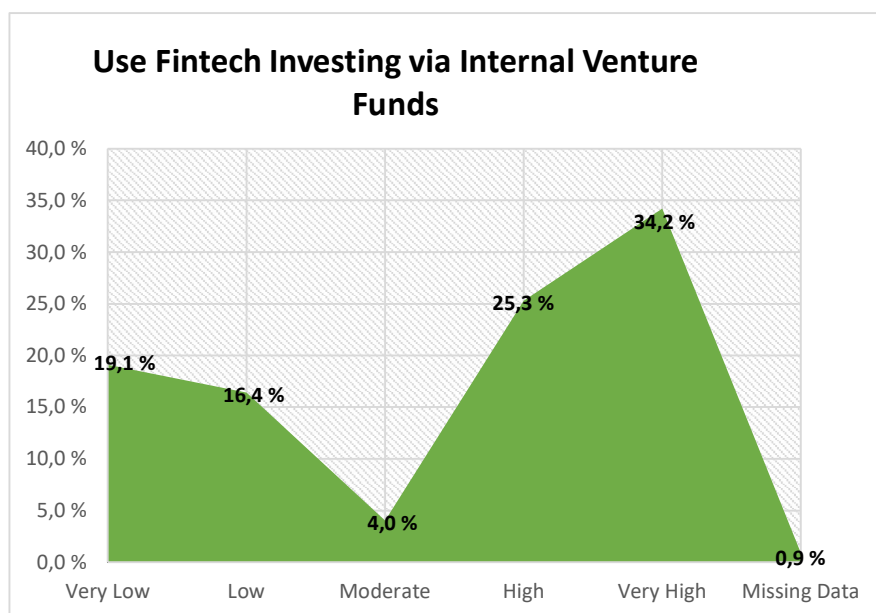


Figure 17. Use of Fintech investing via internal venture funds.

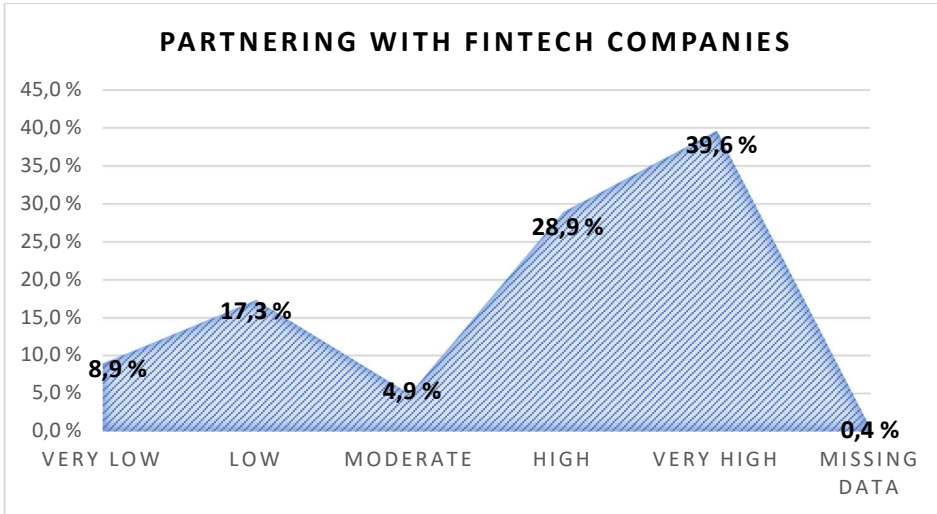


Figure 18. Partnering with Fintech companies.

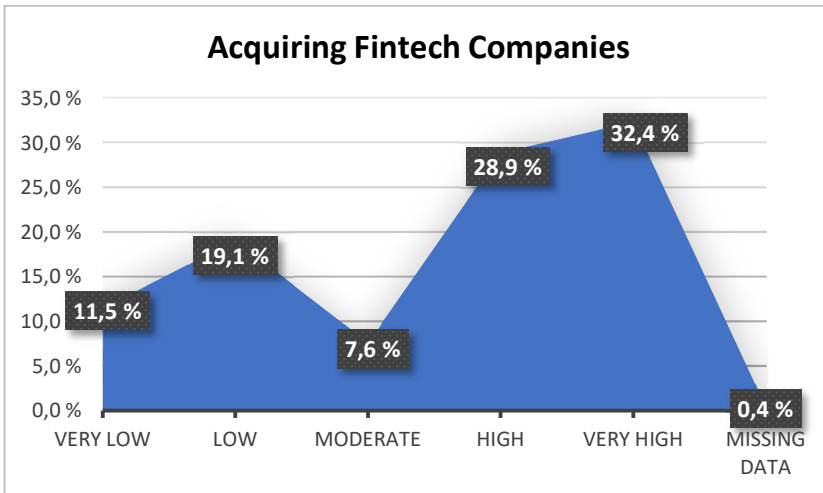


Figure 19. Acquiring Fintech companies.

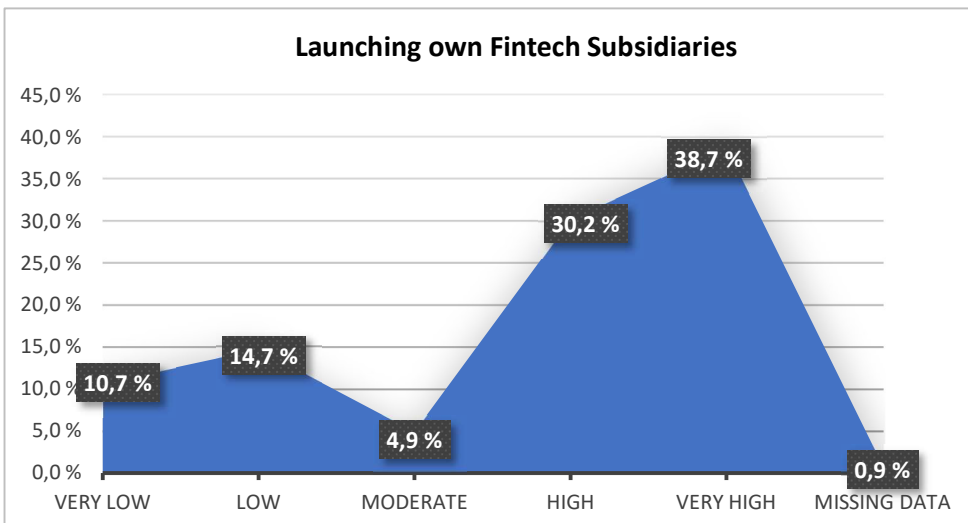


Figure 20. Launching own Fintech subsidiaries.

The charts in Figures 16–20 further show the graphic representation of the extent to which the traditional Access bank deploys Fintech for their banking services. It shows that Fintech use for incubation acceleration programs by Access bank was high, as approximately 60% revealed that the bank use Fintech for incubation acceleration programs, and over 34% believed the bank uses Fintech for investing via internal venture funds respectively on a very high proportion. Also, approximately 69% agreed that Access bank partners with fintech companies at a high and very high level. In addition, approximately 61% are of the opinion that the bank should acquire more Fintech companies while approximately 69% agree that the bank should launch its personal Fintech subsidiary to a high extent.

Also, the responses to the interview process, with respect to research question two were provided below.

“..., Access bank uses several Fintech innovations to replace previous traditional methods and has made these banking services least cost effective so that the bank could be able to compete with other banks in the banking system.” **(Female, Married, Between 26 and 35 years, MSc.)**

“..., Access bank has been able to use Fintech startup to enhance its banking services through the provision of new model of banking services such as the use of incubation acceleration programmes, acquiring Fintech companies, partnering with fintech towards tapping into the benefits of technology use for enhancing banking services.” **(Female, Single, below 25 years, BSc.)**

According to most respondents, Access Bank has a Fintech subsidiary and partners with Fintech companies, which has enabled the bank to utilize and implement Fintech technologies for its banking operations and services. This further demonstrates how effectively Access Bank deploys fintech, which may improve their use of different technologies to better provide their range of banking activities and services to their diverse customer base. This may also increase their competitive advantage in the banking system, especially in the Nigerian banking environment.

5.1.4 Analysis of the effect of Fintech Innovation on Access Bank

This analysis is done based on the information and data from the questionnaire related to research question three, which is the effect of the use of Fintech on Access bank activities. The data is shown in Table 4 below.

Table 4. Effect of Fintech on Traditional banks.

		No. of Re- spondents	Percent
Fintech Provides Better service	Yes	184	81.8
	No	41	18.2
	Missing System	0	0
	Total	225	100.0
Fintech provides opportunity for better branding.	Yes	195	86.7
	No	29	12.9
	Missing System	1	0.4
	Total	225	100.0
Fintech provides cheaper prices.	Yes	165	73.3
	No	58	25.8
	Missing System	2	0.9
	Total	225	100.0
Fintech enhances Customer Relationship Management	Yes	171	76.0
	No	54	24.0
	Missing Data	0	0
	Total	225	100.0
Fintech enhances Human Resource Recruitment and Management	Yes	177	78.7
	No	47	20.9
	Missing System	1	0.4
	Total	225	100.0

The information on table 4 reveals the effect of the use of Fintech on traditional bank activities and services. It reveals that approximately 81% believe that fintech provides better services from the traditional banks to clients towards meeting customers' needs. Approximately 87% noted that Fintech provides better opportunities for better branding; approximately 55.6% revealed that Fintech provides cheaper price of banking services to clients. Also, 76% noted that Fintech enhances customer relationship management while 79% noted that Fintech enhances human resource recruitment and management.

These results demonstrates that Fintech are deployed by the traditional banks to enhance the provision of better service, opportunities for better branding, cheaper prices for customers, enhancing customer relationship management, and better human resource recruitment and management. The information is further illustrated in charts to better present the extent of effect of Fintech on the traditional banking services and activities in Access bank.

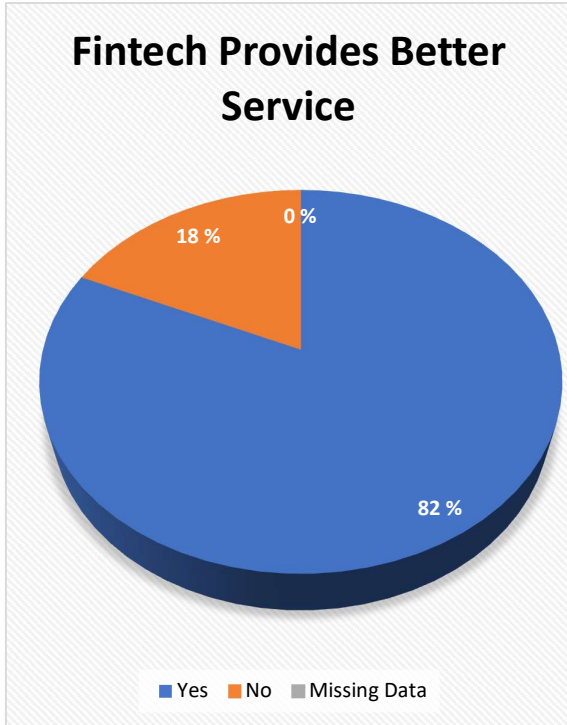


Figure 21. Fintech provides better service.

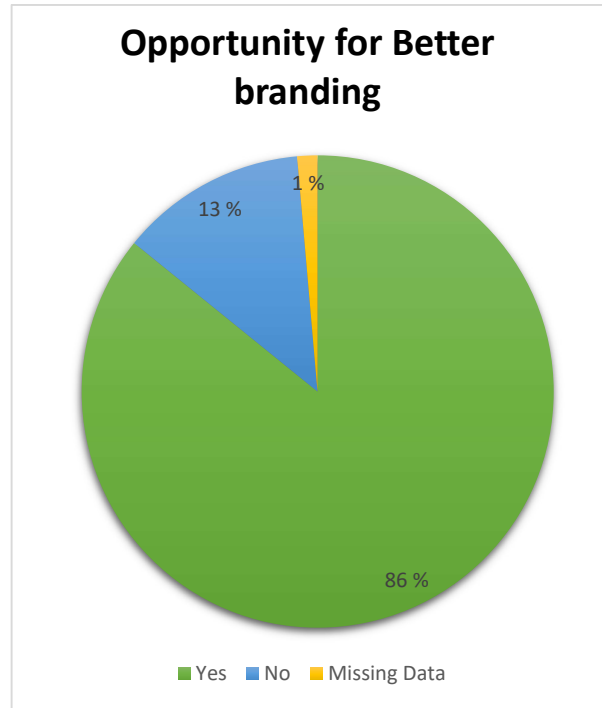


Figure 22. Opportunity for better branding.

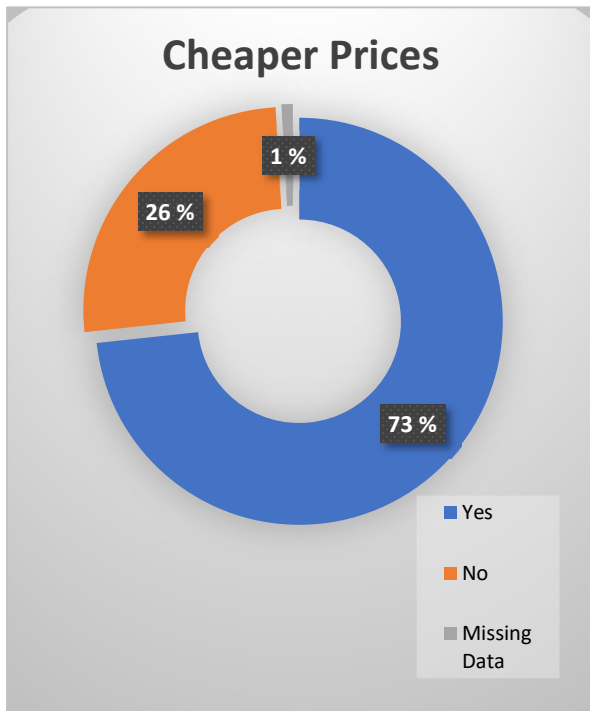


Figure 23. Fintech offers cheaper prices.

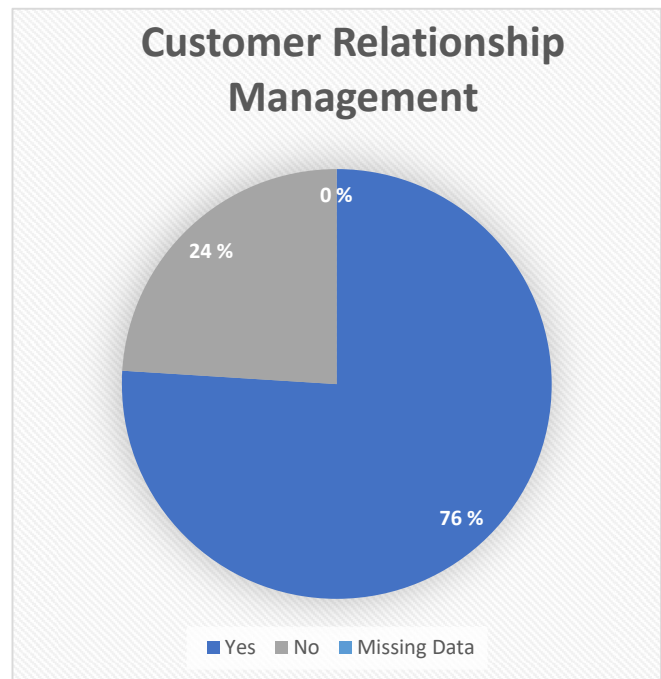


Figure 24. Customer Relationship management.



Figure 25. Fintech enhances Human resources, recruitment, and management.

The charts in Figures 21–25 show that majority of the respondents believed that provision of better opportunities for better branding by Fintech (87%) was the best effect of Fintech on the traditional bank, followed by the provision of better services (81%) by Fintech to the traditional banks to enhance meeting customers' needs. Also, the provision of enhanced human resource recruitment and management (79%) by Fintech was also observed as a major effect Fintech could bring on the traditional bank, such as Access bank. In addition, the provision of better customer relationship management (76%) by Fintech is another important effect Fintech could pose on the traditional Access bank towards enhancing their banking services and activities. Furthermore, the provision of cheaper and price of banking services to clients (73.3%) was also observed to be a major effect that Fintech could pose on the traditional Access bank.

The results revealed that the impact of Fintech innovation on traditional banks could be wide and varied, ranging from the provision of several and better opportunities for better branding, the provision of better service, the enhancement of customer relationship management,

better human resource recruitment and management, and the provision of better and cheaper prices for customers.

Also, the responses to the interview process, with respect to research question three were provided below.

“..., Access bank has been able to deploy digital payments, mobile banking platforms to provide FinTech services that enhance customers experience that are more customer-centered, thereby providing better services and low cost of banking services to customers.” **(Male, Single, below 25 years, BSc.)**

“..., Access bank has used Fintech to enhance the provision of online platforms that makes it very easier for customers who are owners of small businesses to directly access credit and for investors to earn higher returns. By doing this, it provides better banking services to customers using online platforms” **(Male, Single, between 26 and 35 years, BSc.)**

“..., Also, another important area where Access bank has used Fintech to affect its banking activities is its use in customer relationship management, and in human resource recruitment and management. Severally, the bank deploys the services of Fintech to enhance its CRM base and also in recruitment and management of its human resources. This has helped the bank a lot and has reduce errors.” **(Female, Married, Between 36 and 45 years, BSc.)**

5.2 Result Analysis

This study examined the disruptive innovation of Fintech start-ups on the traditional banking landscape in Nigeria, with focus on Access Bank PLC, Nigeria. According to the study's findings, Access Bank uses a variety of Fintech Startup technologies for its services, including chatbots, digital payments, robo-advisors, blockchain technology, digital wallets, peer-to-peer lending, online investment platforms, digital payments, mobile apps, and artificial intelligence. These technologies are adopted by the banking system. Address verification service, end-to-end encryption, biometric authentication, location-based authentication, out-of-band authentication, and risk-based authentication are among the other technologies that Access Bank has used. It also suggests that the most popular ones include chatbots for financial services, peer-to-peer lending, robo-advisors, online investing platforms, and mobile applications.

The findings of this study contradict the findings of Toptal Talent Network (n.d), claiming that despite the increasing wealth and benefits that innovation and technology can bring to traditional banking systems, banks, including those in the Nigerian environment, have been very slow to respond to the deployment of Fintech technology to improve their banking operations, services, and activities.

According to Idoko (2023), traditional banking has been the predominant method and standard of banking operation in Nigeria for many years. This suggests that Fintech's technology deployment has recently caused disruptions to the traditional banking system. As a result, clients might not need to go to the physical branches in person to do banking transactions using tellers. This supports the conclusions of Obi (2020), who found that digital technology has upended the banking industry and its operations and allowed banks to offer their customers better financial services without requiring them to visit the banks physically.

Also, with regards to the level of Fintech technologies adopted by the banking system, the findings of this study further revealed that partnering with fintech companies, launching personal Fintech subsidiaries were the highest use by the traditional Access bank while acquiring Fintech companies, using Fintech for incubation acceleration programs, and for investing via internal venture funds were also deployed by the traditional Access bank. This depicts that Access bank deploys Fintech to a very high extent to better enhance their utilization of various technologies to better the provision of their various banking activities and services to their various customers which could also be a form of increase competitive advantage in the banking system particularly in the Nigeria banking environment.

This validates Bajomo (2023) and Wigwe (2022) that Access Bank has formed various partnerships with fintech companies in order to increase the use of technologies to improve traditional banking services and systems in Nigeria. The outcomes of this study also support the work of Ogbonna (2023), who claims that Access Bank PLC has rapidly improved its digital solutions through collaboration with Fintech. Furthermore, this study agrees with Bajomo (2023) that FinTech's could help traditional banks, such as Access Bank, boost its client worth by over 40% in Nigeria, thus reaching untapped and excluded potential consumers.

This study is consistent with that of Idoko (2023) and Wingard (2023), who found that the effects of Fintech on traditional banking systems and operations are in line with recent client

expectations in the Nigerian banking sector for better, more innovative, more efficient financial services. This has resulted in a resonance shift from traditional banking methods to the use of better and more competitive digital banking methods, such as the use of technologies such as chatbots, alternative credit scoring, digital payments, mobile apps, peer-to-peer lending, online investment platforms, digital wallets, robo-advisors, blockchain technology, and artificial intelligence, among others.

This also agrees with Sharma's work (2021) that fintech companies frequently provide technological innovations to improve traditional financial banks' banking operations, services, and activities, which supports Pattak's (2023) findings that Fintech technologies have challenged traditional banking models by enabling customers to access financial services in a more efficient, cost-effective, and personalized way that is very appealing to customers.

The findings of this study corroborate the work of Dexnova Consulting Limited (2023), who claims that the wide impact of FinTech companies on traditional banks is dependent on their ability to focus on identifying gaps in the traditional banking system, particularly in areas where traditional banks have been slow to innovate, such as the use of robo-advisors and mobile payment platforms. This supports the work of the Wallstreetmojo Team (n.d), which believes that Fintech technologies can bring about certain types of development to traditional banking, such as innovation, replacement of existing methods, cost reduction, new models, and performance improvements, among other things, and successfully challenge the traditional banking system to improve better business operation and performance for customers, ensuring a better competitive advantage.

Additionally, according to the idea of innovative disruption, disruptive technologies can be utilized to boost a certain level of novelty and innovative environment that could support the performance of the traditional banking system, as argued by Graaff and Cowdroy (1997), Christensen et al. (2018), and Peters (2020). However, as the Atlantic Monthly Group (2016) found, the effect of disruptive technology on the traditional banking industry can only be achieved if executives develop the ability to adapt to change and act swiftly in response to consumer and market demands. This is especially true when it comes to leveraging Fintech technologies to improve the operation and services of the traditional banking sector.

Furthermore, in terms of how Fintech start-ups have impacted the various aspects of the traditional banking system, such as market share, customer base, and business operations,

the study's findings support the discussion of Shin and Choi (2019) which explains that when compared to traditional financial services, fintech generates fast revenue, provides quality service, and reduces expenses that reconfigure the financial industry, thus stabilizing the financial system. The findings of this study showed that the best impact of Fintech on traditional banks was its ability to provide improved human resource recruiting and management, which was followed by its ability to improve customer service by offering better services and cheaper product offerings to customers. One of the main effects Fintech could have on traditional banks like Access Bank is the provision of better opportunities for better branding. Another significant impact that Fintech may have on the traditional Access bank in terms of improving their banking services and operations is the ability to offer improved customer relationship management.

6 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study examined the disruptive innovation of Fintech start-ups on the traditional banking landscape in Nigeria, with focus on Access Bank PLC, Nigeria. The findings revealed that:

- i. Access bank deploys several technologies for their services from Fintech Startups such as chatbots, alternative credit scoring, digital payments, Mobile app, peer-to-peer lending, online investment platforms, digital wallets, robo-advisors, blockchain technology, and artificial Intelligence. Other technologies deployed by Access bank are address verification service, end-to-end encryption, biometric authentication, location-based authentication, out-of-band authentication, and risk-based authentication.
- ii. It further reveals that robo-advisors, peer-to-peer lending, chatbots for bank services, mobile applications, and digital payments are the most used Fintech solutions.
- iii. Also, partnering with fintech companies, launching personal Fintech subsidiary, acquiring Fintech companies; using Fintech for incubation acceleration programs, and investing via internal venture funds were deployed by Access bank.
- iv. Various operation of the traditional banking system that Fintech start-up have affected in terms of business operation, market share, customer base, include the provision of better opportunities for better branding; provision of better services and by Fintech to the traditional banks to enhance meeting customers' needs, provision of enhanced human resource recruitment and management, provision of better customer relationship management; and the provision of cheaper prices of banking services to customers.

In conclusion, disruptive innovation of Fintech such as the use of chatbots, alternative credit scoring, digital payments, Mobile app, peer-to-peer lending, online investment platforms, digital wallets, robo-advisors, blockchain technology, artificial Intelligence, among others could have a positive impact on Nigeria's traditional bank landscape by enhancing the opportunities for better branding, supplying Fintech to traditional banks with better services to meet customer's needs, improving recruitment and management of human resources, improving customer relationship management, and offering clients access to banking services at a lower cost.

6.2 Recommendations from the study

From the findings, several recommendations could be made and provided through the study. These include:

- i. Access Bank and other traditional banks should try to create a welcoming environment for Fintech startups and reach out for cutting-edge technology. This could involve utilizing technologies like chatbots, digital payments, robo-advisors, peer-to-peer lending, mobile apps, online investment platforms, digital wallets, artificial intelligence, blockchain technology, and more to improve their traditional banking system and gain from these technologies' potential to boost their competitive advantages and improve customer services. Over time, this can improve the bank's productivity and performance.
- ii. To enhance their competitive advantages, the traditional banking system, like Access Bank, should work to partner with fintech companies, launch personal Fintech subsidiaries, acquire Fintech companies, use Fintech for incubation acceleration programs, and invest through internal venture funds. This will increase their portfolio technology ability and allow them to better leverage the developments that Fintech could bring to the traditional banking system.
- iii. By utilizing the opportunities that Fintech technologies could bring to the banking system, traditional banks like Access Bank should broaden their selection of services and activities. They should do this by utilizing the technologies at their disposal to improve the various functions of the traditional banking system, which will impact their market share, customer base, and overall business operations. This may also entail offering better chances for improved branding, better services, improving and satisfying customer needs, improved human resource recruitment and management, improved customer relationship management, and offering clients more affordable banking services.

6.3 Limitations of the study

This study has several limitations, just like any other research. The primary focus on Access Bank could raise possible concerns about the study's overall conclusions because other Nigerian banks were left out and could only be utilized to draw conclusions with respect to Access Bank, which is a major drawback. The study's concentration just on Access Bank in

Benin City, Edo state means that it does not include the bank's branches in other Nigerian states or countries where Access Bank is physically present. This presents additional limitation to the study's conclusions. However, as Access Bank is currently the largest bank in Nigeria in terms of client base and the study of Fintech's effects on the traditional banking system is useful globally, the study's findings could be used to make some inferences about the country's banking system. Despite these limitations, every effort was taken to assure the reliability and dependability of the research findings.

6.4 Practical Implication

Putting into consideration the findings of this study with regards to the work of Bajomo (2023) that FinTech's could assist traditional banks such as Access Bank to increase their customer base by over 40% in Nigeria hence, reaching the untapped and excluded potential customers, it is important to note that the use of Fintech technologies by traditional banks could help in increasing their customer base, their productivity and performance level, couple with the tendency to increase their competitive advantage, not only in the Nigeria banking sector, but also at the global level. This, in the long run could also increase the level of banking sustainability in the banking system, and this could also attract investors because a major index that could attract investors to the banking system is the extent to which they could sustain their business operations and performance.

6.5 Suggestion for further studies

This study examined the disruptive innovation of Fintech start-ups on the traditional banking landscape in Nigeria, with focus on Access Bank PLC, Nigeria. To this end, several further studies could be provided from this study. First, this study could be replicated by other studies, and refocus on other banks such as First bank, GTB, Zenith bank, among others to be able to provide wider results that is encompassing, which could be jointly used to draw inference to the Nigeria banking system. Also, other study could examine the major factors that could hinder or affect the use of Fintech Startups by the traditional banking system in Nigeria. Also, this present study focuses on the providers, hence, other studies could focus on the users such as the customers, to examine their use and satisfaction with the deployment of Fintech technologies by the traditional banking system in Nigeria.

BIBLIOGRAPHY

Access Bank PLC (2023a). *Access Bank recognized for its leadership in information technology*. <https://www.accessbankplc.com/media/news/access-bank-recognized-for-its-leadership-in-information-technology>

Access Bank PLC (2023b). *Corporate profile*. Access Bank group. <https://www.accessbankplc.com/about-us/our-profile>

Access Bank PLC (2023c). *Our businesses*. Access Bank Group. <https://www.accessbankplc.com/about-us/what-we-do>

Access Bank PLC (2023d). *Our history*. Access Bank group. <https://www.accessbankplc.com/about-us/our-history>

Adner, R. & Zemsky, P. (2005). Disruptive Technologies and the Emergence of Competition. *The RAND Journal of Economics*, 36(2), 229–254. <http://www.jstor.org/stable/4135240>

Adner, R. (2002). When are technologies disruptive? a demand-based view of the emergence of competition. *Strategic Management Journal*, 23, 667-688. <https://doi.org/10.1002/smj.246>

Anifa, M., Ramakrishnan, S., Joghee, S., Kabiraj, S., Bishnoi, M.M. (2022). Fintech innovation in the financial services industry. *Journal of Risk and Financial Management*, 15(7), 287, 1-19, <https://doi.org/10.3390/jrfm15070287>

Ansari, S. & Krop, P. (2012). Incumbent performance in the face of a radical innovation: Towards a framework for incumbent challenger dynamics. *Research Policy Journal*, 41(8), 1357-1374, <https://doi.org/10.1016/j.respol.2012.03.024>

Bajomo A. (2021, November 9). *Access Bank Partners with Fintech NGR, AFF to support the hosting of world fintech festival*. Techcabal. <https://techcabal.com/2021/11/09/access-bank-partners-with-fintech-ngr-aff-to-support-the-hosting-of-world-fintech-festival/>

Bhat A. (2023). *Descriptive Research: Definition, Characteristics, Methods Plus Examples, Questionpro*. <https://www.questionpro.com/blog/descriptive-research/>

Christensen, C. M. (1997). *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston: Harvard Business School Press. *Technology assessment*.

Christensen, C. M., & Overdorf, M. (2000). Meeting the challenge of disruptive change. *Harvard business review*, 78(2), 66-77.

Christensen, C. M., & Raynor, M. (2013). *The innovator's solution: Creating and sustaining successful growth*. Harvard Business Review Press.

- Christensen, C. M., McDonald, R., Altman, E. J., & Palmer, J. E. (2018). Disruptive innovation: An intellectual history and directions for future research. *Journal of management studies*, 55(7), 1043-1078. <https://doi.org/10.1111/joms.12349>
- Christensen, C. M., Raynor, M., & Mcdonald, R. (2015). The big idea: What is disruptive innovation. *Harvard Business Review*, 93(12), 44-53.
- Creswell, J. W. (2012). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications
- De Graaf, E., & Cowdroy, R. (1997). Theory and practice of educational innovation through the introduction of problem-based learning in architecture. *International Journal of Engineering Education*, 13, 166-174.
- Dexnovaconsulting (2023, August 9). *The Impact of Fintech on Traditional Banking: Collaboration or Disruption*. Dexnova Consulting Limited. <https://dexnovaconsulting.com/the-impact-of-fintech-on-traditional-banking/>
- Eleanya, F. (2022, September 26). *Squad to Hydrogen: Nigeria's big banks join fintech fray*. Online Businessday Newspaper. <https://businessday.ng/technology/article/squad-to-hydrogen-nigerias-big-banks-join-fintech-fray/>
- George, T. (2022). *Mixed Methods Research | Definition, Guide & Examples*. Scribbr. <https://www.scribbr.com/methodology/mixed-methods-research/>
- Govindarajan, V., & Kopalle, P. K. (2006). The usefulness of measuring disruptiveness of innovations ex post in making ex ante predictions. *Journal of product innovation management*, 23(1), 12-18. <https://doi.org/10.1111/j.1540-5885.2005.00176.x>
- Henderson, R. (2006). The innovator's dilemma as a problem of organizational competence. *Journal of product innovation management*, 23(1), 5-11. <https://doi.org/10.1111/j.1540-5885.2005.00175.x>
- Hüsig, S., Hipp, C., & Dowling, M. (2005). Analysing disruptive potential: the case of wireless local area network and mobile communications network companies. *R&D Management*, 35(1), 17-35. <https://doi.org/10.1111/j.1467-9310.2005.00369.x>
- Idoko, N. (2023, June 29). *The Shift from Traditional Banking in Nigeria*. Professions.ng. <https://professions.ng/traditional-banking-in-nigeria/>
- Kanali, N. (2022, April 4). *Nigeria Fintech startup Credrails Partners with Access Bank to foster the future of finance in Africa*. Africa tech. <https://africabusinesscommunities.com/tech/tech-news/nigeria-fintech-startup-credrails-partners-with-access-bank-to-foster-the-future-of-finance-in-africa/>

- Keerio, Z. (2023, February 27). *Revolutionizing the Banking Industry: Strategies for Innovative and Profitable Banks*. (Post). LinkedIn. <https://www.linkedin.com/pulse/revolutionizing-banking-industry-strategies-banks-zeeshan-keerio>
- Khatri, K. K. (2020). Research paradigm: A philosophy of educational research. *International Journal of English Literature and Social Sciences (IJELS)*, 5(5), 1435-1440. <https://journal-repository.theshillonga.com/index.php/ijels/article/view/2497>
- Lloyds, A., (2023, April 20). *How Banks Can Stay Ahead In The Age Of Digital Banking: Strategies And Technologies For Success*. (Post). LinkedIn. <https://www.linkedin.com/pulse/how-banks-can-stay-ahead-age-digital-banking-strategies-technologies/>
- Lucas Jr, H. C., & Goh, J. M. (2009). Disruptive technology: How Kodak missed the digital photography revolution. *The Journal of Strategic Information Systems*, 18(1), 46-55. <https://doi.org/10.1016/j.jsis.2009.01.002>
- Masterclass. (2022, June 10), *What Is Disruptive Innovation? 2 Types of Disruptive Innovation*. Masterclass Business. <https://www.masterclass.com/articles/disruptive-innovation>
- Mikheeva, T., & Pankova, V. (2021). On the theory of innovative education. *In E3S Web of Conferences*, 273(12111). <https://doi.org/10.1051/e3sconf/202127312111>
- Mount, M. (2012). *The mechanisms that drive disruptive innovation* (Doctoral dissertation, University of York). <https://etheses.whiterose.ac.uk/3965/>
- Nasy, J. (2023). *Digital banking transformation*. D Limestone Digital. <https://limestonedigital.com/digital-banking-transformation/>
- Obi, D. (2020, November 25). *Nigerian traditional banks challenged to think innovatively as digital tech disrupts banking sector*. Online Businessday Newspaper. <https://businessday.ng/banking/article/nigerian-traditional-banks-challenged-to-think-innovatively-as-digital-tech-disrupts-banking-sector/>
- Odu, C. (2022). Blockchain as a disruptive technology in Nigeria's FinTech ecosystem. *Information Management and Computer Science*. 5(1), 3-10. <http://doi.org/10.26480/imcs.01.2022.03.10>
- Ogbonna, R. (2023). *The digital transformation of Access Bank. Digital Banker Africa, Africa's digital financial footprint*. Digital Banker Africa. [The digital transformation of Access Bank | Digital Banker Africa](https://www.digitalbanker.com/africa/the-digital-transformation-of-access-bank/)
- Ojo, O. V., & Nwaokike, U. (2018). Disruptive technology and the fintech industry in Nigeria: Imperatives for legal and policy responses. *Gravitas Review of Business and Property Law*, 9(3). <https://dx.doi.org/10.2139/ssrn.3306164>

Olatunji, T. (2020). Advancing the cause of Fintech in Nigeria through regulation. *Gravitas Review of Business & Property Law*, 11(4), 17-34.

Omiunu O.G., Omotayo F. O., & Longe, F. A. (2021), Adoption and use of Information and Communication Technologies for Intellectual capital Management among small and medium scale Enterprises in Ibadan, Nigeria. *Asian Journal of Management*, 12(1):6-14.

Pattak D.C. (2023, March 27). *The impact of Fintech on traditional banking models: How Fintech companies are disrupting traditional banking models & its implications on Banks.* (Post). LinkedIn. <https://www.linkedin.com/pulse/impact-fintech-traditional-banking-models-how-companies-pattak/>

Peters, M. A. (2020). An educational theory of innovation: What constitutes the educational good? *Educational Philosophy and Theory*, 52(10), 1016-1022. <https://doi.org/10.1080/00131857.2019.1699992>

Piotet, D. (2023). *Six Key Success Factors for Corporate Innovation*, *Forbes Business Council*. Forbes. <https://www.forbes.com/sites/forbesbusinesscouncil/2021/05/03/six-key-success-factors-for-corporate-innovation/>

Pollack, J. (2007). The changing paradigms of project management. *International journal of project management*, 25(3), 266-274. <https://doi.org/10.1016/j.ijproman.2006.08.002>

Sekits, M. (2023). *How Community Banks Can Implement New Technological Solutions.* Forbes. <https://www.forbes.com/sites/forbesbusinesscouncil/2023/03/17/how-community-banks-can-implement-new-technological-solutions/?sh=647a42e17adb>

Sharma, I., (2021). *Fintech Vs Traditional Banking.* TatvaSoft Software development Company. <https://www.tatvasoft.com/outsourcing/2021/04/fintech-vs-traditional-banks.html>

Shin, Y. J., & Choi, Y. (2019). Feasibility of the FinTech industry as an innovation platform for sustainable economic growth in Korea. *Sustainability*, 11(19), 5351. <https://doi.org/10.3390/su11195351>

Shorten, A., & Smith, J. (2017). Mixed methods research: expanding the evidence base. *Evidence-based nursing*, 20(3), 74-75. <http://dx.doi.org/10.1136/eb-2017-102699>

Spdload. (n.d), *How Does FinTech Disrupt Banking Industry? In-Depth Overview.* Spdload <https://spdload.com/blog/fintech-disruption-in-banking/>

Surveyplanet. (2022, November 2). *Survey descriptive research: Method, design, and examples.* Surveyplanet. <https://blog.surveyplanet.com/survey-descriptive-research-method-design-and-examples>

Sutrisna, M. (2009). Research methodology in doctoral research: understanding the meaning of conducting qualitative research. In *Proceedings of the Association of Researchers in*

Construction Management (ARCOM) Doctoral Workshop held in Liverpool John Moores University. Conducted by ARCOM Liverpool, UK. 44-57

The Atlantic Monthly Group. (2016). *Succeeding in Disruptive Times: Three Critical Factors for Business Transformation Success*. The Atlantic. <https://www.theatlantic.com/sponsored/kpmg-2016/succeeding-in-disruptive-times-three-critical-factors-for-business-transformation-success/986/>

Toptal Talent Network, (n.d). *Fintech and Banks: How Can the Banking Industry Respond to the Threat of Disruption?* Toptal Talent Network. <https://www.toptal.com/finance/investment-banking-freelancer/fintech-and-banks>

Wallstreetmojo Team (n.d). *Disruptive Technology*. Wallstreetmojo Team. <https://www.wallstreetmojo.com/disruptive-technology/>

Wezel, T., & Ree, M. J. J. (2023). *Nigeria--Fostering Financial Inclusion through Digital Financial Services*. International Monetary Fund.

Wingard L. (n.d). *Top 10 Banking Industry Challenges — And How You Can Overcome Them*. Hitachi Solution. <https://global.hitachi-solutions.com/blog/top-10-challenges-banking-financial-organizations-can-overcome/>

APPENDIX

Thesis Questionnaire

Dear Respondent,

This questionnaire was structured to investigate *the disruptive innovation of Fintech start-ups on the traditional banking landscape in Nigeria: A case study of Access Bank PLC*. Please, provide relevant information required as they would be used for research purposes towards the attainment of an academic degree. Also, the information provided would be treated as anonymous.

Thank you sir/ma

Section A: Demographic characteristics

Q1	Gender: a. Male [] b. Female []
Q2	Age Group: a. Below 25 [] b. 25-36 [] c. 36-45 [] d. 46-55 [] e. Above 56 []
Q3	Highest Educational Level: a. SSCE [] b. OND [] c. HND [] d. BSc [] e. MSc [] f. Others []
Q4	Marital Status: a. Single [] b. Married [] c. Divorced [] d. Separated [] e. Widowed []
Q5	Religion: a. Christianity [] b. Islam [] c. Others [] (Please Specify)
Q6	How long have you been working as staff of this company: a. Below 5 Years [] b. 6-10 [] c. Above 10 Years []
Q7	How long have you been unemployed before your employment in this company: a. Below 5 Years [] b. 6-10 [] c. Above 10 Years []
Q8	Have you worked before you were employed in this company: a. Yes [] b. No []

Section B: The technologies adopted by access bank

9. What are the technologies adopted by access bank?

	Items	Tick (✓)
i.	Chatbots	

ii.	alternative credit scoring	
iii.	digital payments	
iv.	Mobile app	
v.	peer-to-peer lending	
vi.	online investment platforms	
vii.	digital wallets	
viii.	robo-advisors	
ix.	Blockchain technology	
x.	Artificial Intelligence	
xi.	Address Verification Service	
xii.	End-to-End Encryption	
xiii.	Biometric authentication	
xiv.	Location-based authentication	
xv.	Out-of-band authentication	
xvi.	Risk-based authentication	
xvii.	Others:	

10. Please list other innovative technologies that the bank is deploying for its banking activities?

.....

Section C: Extent of Fintech technology start-up adoption by traditional bank

11. To what extent does your bank use Fintech?

- i. For Incubation Acceleration programmes: a. Very low [] b. Low [] c. Moderate [] d. High [] e. Very High []

- ii. Investing via internal venture funds: a. Very low [] b. Low [] c. Moderate []
d. High [] e. Very High []
- iii. Partnering with fintech companies: a. Very low [] b. Low [] c. Moderate []
d. High [] e. Very High []
- iv. Acquiring Fintech companies: a. Very low [] b. Low [] c. Moderate [] d. High
[] e. Very High []
- v. Launching own fintech subsidiaries: a. Very low [] b. Low [] c. Moderate []
d. High [] e. Very High []

12. Please mention other ways that the Fintech technology start-up are adopted by your bank:

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Section D: Effects of Fintech technologies start-ups on traditional banking system

13. What are the effects of Fintech on the traditional bank operation?

- i. Provision of Better service Yes [] No []
- ii. Provides opportunity for Better branding Yes [] No []
- iii. Provides Cheaper prices Yes [] No []
- iv. Enhances Customer relationship management Yes [] No []
- v. Enhances Human resource recruitment and Management Yes [] No []

14. What are other effects of Fintech on the traditional bank operation?

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15. What are the challenges faced by the traditional banks in the adoption of Fintech technology in Nigeria?

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