

**DIGITAL TECHNOLOGY AND CUSTOMER LOYALTY IN THE BANKING
SECTOR IN BENIN CITY**



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**A PROJECT WRITTEN AND SUBMITTED TO THE DEPARTMENT OF BUSINESS
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MARCH, 2025

DECLARATION

I HOPE PHILIP

declare that:

This thesis is based on a study undertaken by me in the department of Business Administration, Faculty of Management Sciences, University of Benin, Benin City, under the supervision of MRS S.A. IGIEHON, of the department of Business Administration, Faculty of Management Sciences, University of Benin, Benin City Nigeria.

This work has not been submitted for the award of any degree elsewhere. All ideas and views are produce of my personal research and where the views of others have been expressed, they have been dully acknowledged.

HOPE PHILIP

(DECLARANT)

CERTIFICATION

We certify that this thesis titled "**DIGITAL TECHNOLOGY AND CUSTOMER LOYALTY IN THE BANKING SECTOR IN BENIN CITY**" is an original work carried out by HOPE PHILIP with matriculation number **MGS2007712** in the department of Business Administration university of Benin, Benin City.

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DEDICATION

This project is dedicated to the Almighty, whose guidance and blessings illuminated the path even in the darkest moments. To my Mom, Promise Silas Umoh, your unwavering support and belief in me were the pillars that kept me standing tall amidst every obstacle. With heartfelt gratitude, I offer this work as a testament to the power of faith, family, and perseverance.

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ABSTRACT

The rapid advancement of digital technology has significantly transformed the banking sector, with financial institutions increasingly leveraging digital platforms to enhance service delivery, improve customer experiences, and foster long term relationships. This study examines the relationship between digital technology and customer loyalty in the banking sector, focusing on Zenith Bank in Benin City, Nigeria. Despite substantial investments in digital banking solutions such as mobile applications, internet banking, automated teller machines (ATMs), and AI driven customer support systems, challenges such as service reliability, security concerns, and limited customer awareness persist, affecting customer retention.

This study employs a quantitative research approach to assess how key digital banking factors including accessibility, service quality, security, and customer awareness influence customer loyalty. A structured survey was administered to customers of Zenith Bank in Benin City, and the collected data was analyzed using statistical techniques to identify significant relationships. Findings indicate that while digital banking enhances convenience and accessibility, issues such as security concerns and system downtimes negatively impact customer loyalty. Moreover, customer awareness and trust in digital platforms play a critical role in determining long-term engagement with digital banking services.

The study provides valuable insights for financial institutions, policymakers, and regulatory bodies in optimizing digital banking strategies to improve customer retention. By addressing service reliability, strengthening security measures, and promoting digital literacy, banks can enhance customer trust and loyalty. The findings also contribute to the academic discourse on digital banking and customer behavior in Nigeria, providing a foundation for future research in similar semi-urban banking environments.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The rapid advancement of digital technology has significantly transformed the global banking sector, and this transformation is equally evident in Benin City, Nigeria. Across the world, digital tools and platforms have become integral to banking operations, enabling institutions to streamline service delivery, enhance customer experiences, and build long term relationships with clients. According to a report by McKinsey & Company (2023), digital banking penetration has reached 70% globally, driven by innovations such as mobile banking apps, internet banking, automated teller machines (ATMs), and artificial intelligence-powered customer support systems. In Sub-Saharan Africa, mobile banking accounts for 57% of digital financial transactions, with Nigeria leading the adoption curve in West Africa (World Bank, 2022).

Banks in Benin City are increasingly leveraging these technologies to meet the growing demand for seamless and efficient financial services. Local institutions such as Zenith Bank and Access Bank have recorded significant increases in customer engagement through digital platforms. For example, the introduction of Zenith Bank's mobile banking app led to a 35% rise in customer transactions in 2022 alone (CBN, 2023). These tools have redefined how financial institutions

interact with customers, offering convenience and accessibility that traditional banking methods could not match.

Customer loyalty, which is essential for the growth and sustainability of banks, has become closely tied to the quality of digital services provided. Research shows that customers who have positive digital experiences are 70% more likely to remain loyal to their banks compared to those who face difficulties (Deloitte, 2023). Loyal customers contribute to a bank's success by continuing to use its products and services and promoting the institution through word of mouth. However, achieving such loyalty in the digital age is not without challenges.

Despite the convenience and efficiency offered by digital technology, several barriers hinder its full impact on customer loyalty. Security concerns remain a significant issue, with cybercrime costing Nigerian banks approximately ₦14.3 billion in 2022 (NIBSS, 2023). Service reliability is another critical concern, as customers frequently complain about downtime on digital platforms, particularly during peak transaction periods. Accessibility also poses a challenge, as rural areas in Edo State, where Benin City is located, still face issues with internet connectivity and digital literacy, limiting the reach of digital banking services.

Moreover, comparisons with other regions reveal areas for improvement. For instance, Kenyan banks, particularly through platforms like M-Pesa, have achieved deeper market penetration and customer loyalty by addressing rural accessibility and offering tailored digital solutions (CGAP,

2022). In contrast, Nigerian banks are still grappling with fragmented infrastructure and low adoption rates in underserved areas. Understanding the relationship between digital technology and customer loyalty is therefore critical in this evolving landscape. As the banking sector in Benin City navigates these challenges, insights from this study will help institutions optimize their digital strategies, ensuring they not only retain customers but also foster stronger loyalty in a highly competitive market.

1.2 Statement of the Research problem

Despite substantial investments in digital technology, banks in Benin City continue to face significant challenges in retaining customers. Issues such as service downtime, complex user interfaces, and limited awareness among customers about digital banking options have raised concerns about the effectiveness of these platforms in fostering loyalty. Moreover, the growing competition from fintech companies offering more innovative, efficient, and cost effective financial solutions has intensified the struggle for customer retention, leaving traditional banks at a disadvantage.

Several scholars have examined the relationship between digital technology and customer loyalty, albeit with differing focal points. Ayo and Ojo (2022) highlighted that while digital banking platforms improve convenience and accessibility, inconsistent service reliability remains a critical factor driving customer dissatisfaction in Nigerian banks. Similarly, Okeke and Adeola (2021) emphasized the role of security concerns in eroding customer trust in digital banking

systems, which adversely impacts loyalty. Furthermore, Obike and Ibe (2020) explored the significance of digital literacy and awareness, identifying these as major barriers to the effective adoption of digital banking services, particularly in semi-urban areas such as Benin City. However, these studies exhibit significant gaps. Ayo and Ojo (2022) concentrated on service reliability but neglected the impact of customer awareness on loyalty. Okeke and Adeola (2021) addressed security issues but did not consider accessibility as a potential determinant of customer engagement. Similarly, while Obike and Ibe (2020) provided insights into digital literacy, their research lacked a comprehensive evaluation of service quality in relation to customer loyalty.

This current study seeks to address these gaps by adopting a more integrated approach. It examines how factors such as accessibility, service quality, security, and customer awareness collectively influence customer loyalty in the banking sector of Benin City. By analyzing these interconnected variables, the research aims to provide a holistic understanding of the challenges and opportunities presented by digital technology, offering practical recommendations to enhance digital banking strategies in the local context.

1.3 Research Questions

This study will address the following research questions:

1. What is the relationship between accessibility of digital platforms and customer loyalty?
2. How does the quality of digital banking services affect customer loyalty?

3. What is the impact of security and privacy concerns on customer loyalty?
4. How does customer awareness and adoption influence loyalty in the banking sector?

1.4 Research Objectives

The main objective of the study is to examine the relationship between digital technology and customer loyalty in the banking sector. The specific objectives of this study are to:

1. Examine the relationship between accessibility of digital platforms and customer loyalty.
2. Evaluate the impact of service quality on customer loyalty in the banking sector.
3. Assess the influence of security and privacy on customer loyalty.
4. Investigate the role of customer awareness and adoption in fostering loyalty to banks.

1.5 Research Hypotheses

The following null hypotheses will guide the study:

1. There is no significant relationship between accessibility of digital platforms and customer loyalty.
2. Service quality of digital banking services does not significantly affect customer loyalty.
3. Security and privacy concerns have no significant impact on customer loyalty.

4. Customer awareness and adoption do not significantly influence customer loyalty.

1.6 Scope of the Study

This study focuses on exploring the relationship between digital technology and customer loyalty within the context of Zenith Bank in Benin City, Nigeria. The scope is limited to examining key digital services offered by Zenith Bank, such as mobile banking applications, internet banking platforms, automated teller machines (ATMs), and digital customer support systems. The study assesses how factors like accessibility, service quality, security, and customer awareness influence customer loyalty to the bank.

The research is geographically confined to Benin City, ensuring that the findings reflect the local dynamics and customer experiences specific to this region. The temporal scope covers digital banking operations from 2018 to 2023, a period marked by rapid technological advancements and heightened competition from fintech companies. By narrowing the focus to Zenith Bank, the study provides a detailed examination of digital banking practices within one of Nigeria's leading financial institutions, offering insights that may serve as a reference for other banks operating in similar environments.

1.7 Limitations of the Study

While this study provides valuable insights into the relationship between digital technology and customer loyalty within Zenith Bank in Benin City, it is not without limitations. One notable

limitation is its geographical scope. The research is confined to Benin City and does not account for variations in customer behavior or digital banking adoption across other regions of Nigeria. As a result, the findings may not fully represent the experiences of customers in rural areas or larger urban centers with different socioeconomic dynamics.

Additionally, the study focuses exclusively on Zenith Bank, which limits its applicability to the digital banking strategies of other financial institutions in Benin City. This singular institutional focus means that variations in practices and customer experiences across other banks are not captured, which could restrict the broader generalizability of the findings.

The temporal scope of the study is another limitation. By examining digital banking operations in 2023, the research captures only a specific timeframe but may not reflect long-term patterns or account for emerging technologies and innovations that could influence customer loyalty in the future. Moreover, the study relies heavily on self-reported data through surveys or interviews to gauge customer experiences and loyalty. Such methods are inherently prone to biases, such as respondents providing socially desirable answers or inaccuracies due to memory recall issues, which could affect the reliability of the findings.

Lastly, the rapid pace of technological advancement presents a dynamic challenge. As new technologies and practices continue to emerge, some findings of this study may become outdated, limiting its relevance for long-term strategic planning. Despite these limitations, the study offers

a robust analysis of the factors influencing customer loyalty in the context of digital banking at Zenith Bank. These constraints also provide opportunities for future research to build on the findings and address the gaps identified.

1.8 Significance of the Study

This study holds significant value for various stakeholders in the banking sector and beyond.

For banks, the findings provide actionable insights into optimizing digital platforms to enhance customer loyalty. In an era where customer retention is critical for sustaining competitive advantage, understanding the relationship between digital technology and loyalty can help financial institutions in Benin City identify key areas for improvement. These include improving service quality, enhancing user accessibility, strengthening security features, and raising customer awareness. By addressing these factors, banks can not only retain existing customers but also attract new ones, thereby boosting their market share and profitability in a highly competitive landscape.

For policymakers and regulatory bodies, this study offers valuable guidance for formulating regulations and policies that support technological innovation while ensuring customer satisfaction and security. As digital banking continues to evolve, regulatory frameworks must strike a balance between encouraging technological advancements and protecting consumer interests. For example, the Central Bank of Nigeria (CBN) can leverage the study's findings to

develop policies that mandate minimum security standards, promote digital literacy, and encourage rural inclusivity in digital banking services.

For academics and researchers, this study contributes to the growing body of knowledge on digital banking, focusing specifically on the unique context of Benin City. Existing literature often generalizes findings across regions without considering the local challenges and opportunities specific to semi-urban areas like Benin City. By filling this gap, the research provides a foundation for future studies to explore the dynamics of digital technology and customer loyalty in similar contexts. This localized focus adds depth to global discussions on digital banking, offering comparative insights that can be useful for scholars worldwide.

Finally, for customers, the study indirectly benefits them by driving improvements in digital banking services. Enhanced digital platforms that are user-friendly, reliable, secure, and accessible will provide customers with better banking experiences, fostering trust and loyalty. This, in turn, creates a more customer-centric banking environment, aligning with the evolving needs of the digital age.

1.9 Definition of Key Terms

1. Digital Technology: Tools and platforms, such as mobile apps and internet banking, used by banks to deliver financial services.

2. Customer Loyalty: A customer's consistent preference and commitment to a bank's products and services.

3. Banking Sector: Financial institutions in Benin City offering digital and traditional banking services.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature on the impact of digital technology on customer loyalty in the banking sector. It explores theoretical frameworks, digital technology trends, and their influence on customer decision-making, satisfaction, and loyalty. The chapter concludes by identifying gaps in the literature and linking them to the study.

2.2 Conceptual Framework

Digital technology has transformed the banking sector, enabling institutions to offer services through various channels such as online banking, mobile apps, and chatbots. These innovations have redefined consumer expectations, emphasizing convenience, speed, and personalization. The conceptual framework for this study integrates digital technology, consumer behavior, and loyalty as interconnected dimensions influencing banking operations.

2.2.1 Customer loyalty

Customer loyalty refers to the unwavering commitment and preference customers have for a specific brand, product, or service over time. This loyalty is exhibited through repeated patronage, advocacy, and an emotional attachment that transcends mere transactional relationships. In the banking sector, customer loyalty is particularly significant as it represents

the tendency of clients to remain with a financial institution despite attractive alternatives. This is often driven by factors such as trust, satisfaction, and perceived value (Kumar et al., 2024). The concept of loyalty plays a crucial role in determining an organization's success. Loyal customers are invaluable assets because they not only contribute to consistent revenue but also act as brand ambassadors, advocating for the organization through positive word of mouth. They are generally less sensitive to price changes, more inclined to explore additional products or services offered by the brand, and exhibit long term engagement (Sharma & Gupta, 2023). Given these benefits, organizations, particularly in competitive fields like banking, prioritize fostering and sustaining loyalty to secure a competitive edge.

Customer loyalty is multidimensional in nature, encompassing behavioral, attitudinal, and cognitive aspects. Behavioral loyalty refers to observable actions such as repeated purchases or continued patronage. For instance, a loyal bank customer might maintain long-term accounts or utilize multiple financial products. On the other hand, attitudinal loyalty reflects a deeper emotional bond, wherein customers remain loyal due to trust and satisfaction with the organization's services. Lastly, cognitive loyalty involves a rational evaluation of a brand's superiority based on its offerings, such as competitive interest rates or innovative solutions (Mehta & Patel, 2023).

The importance of customer loyalty extends beyond repeat transactions. Loyal customers are more cost-effective to retain compared to acquiring new ones, given the high costs associated

with customer acquisition strategies. Moreover, they provide stability to an organization's revenue streams and contribute to its overall brand equity. In the banking industry, high levels of customer loyalty often translate into reduced churn rates, higher Net Promoter Scores (NPS), and improved market reputation. As competition intensifies, particularly in the digital era, cultivating loyalty has become even more crucial (Chowdhury et al., 2023).

Several factors influence the development and sustainability of customer loyalty. One of the most critical is customer satisfaction, as organizations that consistently meet or exceed customer expectations are more likely to cultivate loyalty. In the banking sector, this might involve seamless digital transactions, personalized services, and responsive customer support. Trust is another essential factor, especially in financial services where customers entrust sensitive information and assets to their banks. Perceived value also plays a vital role; customers often remain loyal to institutions that offer competitive pricing, superior service quality, and innovative solutions. Finally, emotional connections further deepen loyalty, as customers who feel a sense of belonging or alignment with a brand's values are more inclined to maintain their commitment (Nadeem et al., 2023).

The advent of digital technologies has significantly transformed the way organizations build and maintain customer loyalty. Digital tools such as Customer Relationship Management (CRM) systems, artificial intelligence, and data analytics enable businesses to offer personalized experiences that enhance customer engagement and satisfaction. In the banking sector, features

such as 24/7 accessibility, advanced security measures, and user-friendly platforms strengthen customer trust and satisfaction, thereby fostering long-term loyalty (Chowdhury et al., 2023). In conclusion, customer loyalty is a vital component of organizational success, particularly in competitive and trust-driven industries such as banking. By understanding and addressing factors like satisfaction, trust, perceived value, and emotional connection, businesses can effectively cultivate and sustain loyalty. In today's digital age, leveraging technology to enhance customer experiences and engagement is not just beneficial but essential for maintaining a loyal customer base and achieving long-term success.

2.2.2 Digital Technology in Banking

Digital technology in banking encompasses a broad spectrum of innovations designed to enhance the delivery and consumption of financial services. Key advancements include mobile banking, internet banking, contactless payments, artificial intelligence (AI), and blockchain. These technologies have fundamentally transformed the banking landscape by improving operational efficiency, enhancing customer experiences, and fostering financial inclusion.

1. Mobile Banking

Mobile banking has become one of the most widely adopted digital innovations in the banking sector. It allows customers to perform financial transactions, such as fund transfers, bill payments, and account monitoring, through mobile applications. Mobile banking provides convenience and accessibility, enabling users to perform transactions anytime and anywhere.

According to statistic (2024), global mobile banking users are expected to exceed 2.5 billion by the end of 2025, highlighting its growing importance in the financial ecosystem.

2. Internet Banking

Internet banking provides users with online platforms to access banking services through computers and other internet-enabled devices. This technology has significantly reduced the need for physical bank visits, allowing customers to perform tasks like opening accounts, applying for loans, and investing in financial products from the comfort of their homes. Internet banking also enhances transparency by offering detailed transaction histories and account management tools (Kumar et al., 2023).

3. Contactless Payments

Contactless payments, enabled by Near Field Communication (NFC) and Radio Frequency Identification (RFID) technologies, have gained widespread adoption. These payments allow customers to complete transactions quickly and securely by tapping their cards or smartphones against a payment terminal. Contactless payment methods are particularly useful in reducing transaction times and minimizing physical contact, which has become essential in the post-pandemic era (Chowdhury et al., 2023).

4. Artificial Intelligence (AI)

AI is revolutionizing the banking industry by automating processes, improving customer service, and enhancing decision-making. AI-powered chatbots and virtual assistants provide real time support to customers, addressing queries and resolving issues efficiently. Additionally, AI algorithms are used to analyze customer behavior, detect fraudulent activities, and provide personalized financial recommendations. A study by Lee and Kim (2023) revealed that banks utilizing AI have reported a 30% increase in operational efficiency and a 20% improvement in customer satisfaction.

5. Blockchain Technology

Blockchain technology has introduced new dimensions of security and transparency in the banking sector. By utilizing decentralized ledgers, blockchain ensures that financial transactions are secure, tamper-proof, and verifiable. This technology is particularly beneficial in areas such as cross-border payments, digital identity verification, and trade finance. For instance, research by Nadeem et al. (2023) highlights that blockchain adoption has reduced cross-border transaction times by up to 80% in some banks, significantly improving operational efficiency.

6. Benefits of Digital Technology in Banking

Digital technologies have enhanced efficiency and improved consumer experiences by offering 24/7 access, real-time transactions, and secure platforms. Customers can now access their accounts, conduct transactions, and apply for financial products without time or location

constraints. Furthermore, these technologies have empowered banks to optimize their operations, reduce costs, and target a broader audience. For example, digital banking services have enabled financial institutions to reach underserved and unbanked populations in rural and remote areas (World Bank, 2023).

2.2.3 Customer Loyalty in Banking

Customer loyalty in the banking sector refers to a customer's long-term commitment to and preference for a particular bank's products or services. This loyalty is often cultivated through consistent positive experiences, high levels of satisfaction, trust in the institution, and emotional connections formed over time. In an increasingly competitive financial landscape, fostering customer loyalty is a key strategic priority for banks as it directly impacts customer retention, profitability, and brand reputation.

Customer loyalty is essential for banks as loyal customers are more likely to use multiple financial products, recommend the bank to others, and continue their patronage despite competitive offers from rival institutions. Research shows that retaining existing customers is significantly less costly than acquiring new ones, and loyal customers often contribute more to a bank's profitability through higher product usage and long-term engagement (Kumar et al., 2023). Moreover, customer loyalty helps build resilience for banks in times of financial crisis or market disruptions, as satisfied customers are less likely to switch institutions.

2.2.4 Digital Technology in Building Customer Loyalty

Digital technology has transformed the ways banks interact with and retain their customers. By offering personalized services, enhancing customer experiences, and ensuring seamless and secure transactions, digital tools have become critical in building customer loyalty.

1. Personalized Services

Digital technologies, such as customer relationship management (CRM) systems and artificial intelligence (AI), enable banks to analyze customer data and offer tailored financial products and services. For instance, AI-driven analytics can provide insights into customers' spending habits, allowing banks to recommend relevant credit card offers, investment opportunities, or loan products (Sharma & Gupta, 2023). Personalized experiences foster a sense of value and recognition, which strengthens customer loyalty.

2. Convenience and Accessibility

With the advent of mobile banking apps, internet banking, and digital wallets, customers can access banking services 24/7 without visiting a branch. This convenience enhances customer satisfaction and strengthens their loyalty to the institution. For example, studies have found that banks with intuitive and user-friendly digital platforms report higher customer retention rates (Mehta & Patel, 2023).

3. Seamless and Secure Transactions

Security is a cornerstone of customer trust, and digital technology plays a vital role in ensuring secure banking experiences. Advanced encryption protocols, biometric authentication, and fraud detection systems enhance transaction security, reducing the risk of financial loss and building customer confidence (Nadeem et al., 2023). Customers who feel their funds and data are safe are more likely to remain loyal to the bank.

4. Engagement through Digital Channels

Digital engagement through personalized email updates, targeted advertisements, and chatbots improves communication between banks and customers. These channels allow banks to address customer queries promptly, inform them about new products, and keep them engaged with the brand (Chowdhury et al., 2023).

5. Reward Programs and Incentives

Banks often leverage digital platforms to implement reward programs and incentives, such as cashback offers, loyalty points, and discounts on financial products. These programs encourage customers to remain with the bank and engage more frequently with its services. Studies indicate that customers enrolled in digital reward programs demonstrate a 25% higher retention rate compared to those without (Lee & Kim, 2023).

2.2.5 Challenges in Digital Technology Adoption

While digital technology has revolutionized the banking sector, its adoption is not without challenges. These challenges stem from both operational and customer-centric issues that affect the seamless integration and usage of digital banking platforms. Among the most pressing challenges are cybersecurity threats, digital literacy gaps, high implementation costs, and resistance to change from both customers and employees.

1. Cybersecurity Threats

The increasing reliance on digital platforms has made banks prime targets for cybercriminals. Cybersecurity threats, including data breaches, ransomware attacks, and phishing scams, pose significant risks to both banks and their customers. Despite substantial investments in security measures, such as encryption, firewalls, and multi-factor authentication, cyberattacks continue to evolve in complexity, requiring banks to remain vigilant and proactive (Sharma et al., 2023). For example, in 2022 alone, the global financial sector faced cyberattacks resulting in losses exceeding \$3 billion (Lee & Kim, 2023). The fear of losing sensitive financial and personal data discourages some customers from fully adopting digital banking services.

2. Digital Literacy Gaps

Digital literacy remains a significant barrier to the widespread adoption of digital banking technologies. This issue is particularly pronounced among certain demographics, such as the elderly, individuals with limited education, and rural populations. Many potential users struggle

to navigate banking apps, understand transaction procedures, or recognize cybersecurity risks (Adebayo & Eze, 2023). In regions with low internet penetration or unreliable connectivity, digital banking services are inaccessible, further exacerbating the digital divide. For instance, research shows that in sub-Saharan Africa, only 33% of adults have access to digital financial services, compared to over 80% in developed economies (World Bank, 2023).

3. High Implementation Costs

The cost of implementing and maintaining digital technologies is another significant challenge for banks, particularly smaller financial institutions. These costs include the development and deployment of advanced software, upgrading existing infrastructure, training staff, and ongoing maintenance. Additionally, regulatory compliance and cybersecurity requirements add to the financial burden, making it difficult for some banks to compete with larger institutions that have greater resources (Patel & Mehta, 2023).

4. Resistance to Change

Adopting new digital technologies often requires a cultural shift within banks and among customers. Employees accustomed to traditional banking methods may resist learning and using new systems, while customers may be hesitant to transition from face-to-face interactions to digital platforms. Resistance is often fueled by fears of technology failure, security concerns, or a lack of trust in automated systems (Chowdhury et al., 2023).

5. Infrastructure Challenges

In developing countries, inadequate infrastructure such as unreliable electricity supply, limited internet coverage, and outdated banking systems pose additional hurdles. These infrastructural gaps impede the effective rollout and adoption of digital banking solutions, leaving a significant portion of the population reliant on traditional banking methods (Nadeem et al., 2023).

1. Regulatory and Compliance Issues

As digital banking evolves, regulatory frameworks often lag behind, creating uncertainties for banks. Adhering to inconsistent or unclear regulations across different jurisdictions can be complex and costly. Moreover, stricter data privacy laws, such as the General Data Protection Regulation (GDPR), require banks to overhaul their data management practices, which can be both time-consuming and expensive (Kumar et al., 2023).

Addressing the Challenges

To overcome these challenges, banks need to adopt a multi-pronged approach. This includes investing in robust cybersecurity frameworks, launching digital literacy campaigns, collaborating with governments and technology providers to improve infrastructure, and fostering a culture of innovation among employees. Regulatory bodies also need to provide clear and consistent guidelines to facilitate the adoption of digital technologies in banking.

2.3 Theoretical Framework

2.3.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), proposed by Davis (1989), provides a framework for understanding technology adoption by consumers. The model identifies two critical factors: perceived ease of use and perceived usefulness, which significantly influence an individual's attitude towards using a particular technology. In the context of digital banking, these factors determine whether consumers will embrace services such as mobile banking or online transactions. The simplicity and efficiency of digital banking platforms often drive adoption, as consumers are more likely to utilize technologies that save time and reduce complexity.

2.3.2 Expectation-Confirmation Theory (ECT)

The Expectation-Confirmation Theory (ECT), introduced by Oliver (1980), examines the relationship between consumer expectations and satisfaction. The theory posits that when actual experiences meet or exceed initial expectations, customer satisfaction is achieved, which in turn fosters loyalty. In digital banking, seamless transactions, personalized services, and robust security measures play vital roles in meeting consumer expectations. When banks consistently deliver positive experiences, customers are more likely to remain loyal, creating a strong foundation for long-term relationships.

2.3.3 Integration of TAM and ECT

Integrating the TAM and ECT models offers a comprehensive approach to understanding consumer behavior and loyalty in the digital banking sector. While TAM focuses on the factors that lead to technology adoption, ECT emphasizes the importance of post-adoption satisfaction. Together, these models provide insights into how banks can attract and retain customers by addressing both the functional and experiential aspects of their digital services. By ensuring user friendly platforms and exceeding customer expectations, banks can enhance loyalty and sustain competitive advantage in the evolving digital landscape.

2.4 Empirical Review

Brown et al. (2023) conducted a study examining the role of digital technology adoption in European banks from 2020 to 2022. The study analyzed data from 15 leading banks in Europe using a quantitative approach, involving surveys and regression analysis. Their findings revealed that the adoption of digital innovations, such as mobile banking, AI, and chatbots, significantly increased customer retention by 25%. Based on these results, the study suggested that banks should invest more in enhancing the digital experience, especially through personalized services and AI-driven solutions, to strengthen customer loyalty.

Adewale et al. (2022) explored the impact of digital banking, specifically mobile banking, on consumer loyalty in Nigeria, covering the period from 2019 to 2021. The study focused on 10 banks across Nigeria and employed a mixed-method approach, combining quantitative surveys

and qualitative interviews. Their results showed that mobile banking significantly improved consumer satisfaction and loyalty, especially among younger consumers. The study recommended that Nigerian banks address digital literacy gaps, particularly in rural areas and among older demographics, to enhance the adoption of mobile banking services.

Johnson and Lee (2021) conducted a study on the effect of blockchain technology on customer loyalty in U.S. banks between 2018 and 2020. The study focused on 20 banks and used survey-based research, along with structural equation modeling (SEM) to analyze the data. The findings indicated that integrating blockchain technology in banking services enhanced customer trust and improved customer loyalty. Based on these insights, the authors suggested that banks should continue developing blockchain solutions, ensuring user-friendly interfaces and enhanced transparency to build customer confidence.

Nguyen et al. (2021) explored the role of AI-driven customer support in enhancing consumer loyalty among banks in Southeast Asia. The study, conducted from 2017 to 2020, involved 12 banks in the region. The researchers employed a quantitative analysis, using structural equation modelling (SEM) to assess the impact of AI on consumer engagement. The results showed a 30% increase in customer retention attributed to the use of AI-driven services. The study recommended that banks continue to invest in AI technologies, particularly to offer more personalized experiences and enhance customer service.

Smith and Walker (2020) investigated the relationship between digital banking services and customer loyalty in the United Kingdom between 2016 and 2019. The study analyzed data from 10 major UK banks, using longitudinal customer satisfaction surveys. Their findings revealed that digital banking services, particularly mobile banking and contactless payment technologies, were positively correlated with higher customer loyalty. The authors suggested that banks should prioritize upgrading their digital platforms regularly to meet customer expectations and sustain their competitive edge.

Kim and Yoon (2020) focused on mobile banking adoption and customer loyalty in South Korea from 2015 to 2019. The study covered 8 major South Korean banks and used a mixed-method approach, combining focus group discussions and quantitative surveys. The study found that younger consumers showed a stronger preference for mobile banking, which in turn led to increased loyalty. Based on these findings, the study recommended that banks focus on customizing mobile services to meet the diverse needs of different consumer segments, especially the tech-savvy younger generation.

Patel and Mehta (2023) conducted a study in India to examine how digital banking, particularly mobile banking and AI-powered chatbots, impacted customer loyalty from 2020 to 2022. The study included 14 Indian banks and utilized a cross-sectional survey and regression analysis. The findings revealed that the adoption of mobile banking and AI-driven services led to significant improvements in customer satisfaction, which subsequently increased customer

loyalty. The authors suggested that banks should continue to invest in AI technologies and focus on improving the security features of mobile banking services to further enhance customer trust.

Thomas and Singh (2022) analyzed the effects of digital banking on customer loyalty in African banks, focusing on the period from 2018 to 2021. The study covered 5 banks from various African countries and employed a comparative analysis, utilizing both quantitative surveys and secondary data analysis. The results showed that digital banking services were positively correlated with customer loyalty, especially when banks offered tailored financial products through mobile applications. The authors recommended that African banks expand their mobile banking infrastructure and implement targeted marketing strategies to appeal to younger, tech-savvy consumers.

Zhang et al. (2021) conducted a study examining the influence of AI and big data analytics on consumer loyalty in Chinese banks from 2017 to 2020. The study focused on 6 major Chinese banks and employed an experimental design along with consumer feedback surveys. The results indicated that the integration of AI and big data analytics into consumer services significantly enhanced decision-making, resulting in improved customer loyalty. The authors recommended that banks increase their investment in big data analytics to offer even more personalized experiences and meet customers' evolving needs.

Hassan and Ibrahim (2020) explored the impact of blockchain technology on customer loyalty in Middle Eastern banks between 2016 and 2019. The study analyzed data from 9 banks in the region, using regression analysis and case study methodology. The findings showed that the adoption of blockchain technology improved perceptions of trust and security, leading to stronger customer loyalty. Based on these findings, the study suggested that banks in the Middle East should continue to develop robust cybersecurity frameworks, particularly within blockchain applications, to ensure customer confidence and loyalty.

2.5 Summary and Gap in the Literature Reviewed

The literature reviewed reveals a substantial body of research demonstrating the positive correlation between digital technology adoption and consumer loyalty in the banking sector. Studies consistently highlight the significant role of digital innovations such as mobile banking, artificial intelligence (AI), blockchain, and big data analytics in enhancing customer satisfaction, engagement, and retention. For example, Brown et al. (2023) found that digital innovations increased customer retention by 25% in European banks, while Adewale et al. (2022) reported that mobile banking significantly improved customer loyalty in Nigeria. Moreover, technologies like AI driven services and blockchain were linked to enhanced customer trust and loyalty in studies by Nguyen et al. (2021) and Johnson & Lee (2021). The findings suggest that digital technology is a key driver of customer loyalty by providing personalized services, improving transaction efficiency, and ensuring secure platforms. However, while the literature offers

valuable insights, it also reveals several gaps that warrant further exploration. First, many studies emphasize the overall impact of digital technologies but fail to investigate the individual contributions of specific technologies such as AI and blockchain on consumer loyalty. For instance, while Brown et al. (2023) highlight the benefits of digital innovation, they do not explore the distinct impact of technologies like AI versus mobile banking. Similarly, Adewale et al. (2022) note the positive effects of mobile banking but leave unexplored how advanced technologies like blockchain and AI may influence consumer behavior and loyalty in Nigeria.

Another notable gap is the limited focus on the demographic factors that may influence the adoption and impact of digital banking technologies. Several studies (e.g., Kim & Yoon, 2020) identify younger consumers as the primary adopters of digital banking services, yet there is a lack of research examining how factors such as age, gender, and education level impact the way consumers engage with digital banking services. This demographic lens is critical, especially in regions with varying levels of digital literacy, such as rural or elderly populations, as identified by Adewale et al. (2022). Furthermore, while several studies have focused on specific regions, such as European or Southeast Asian banks, there is limited research on how digital technology adoption affects loyalty in less-studied regions, such as sub-Saharan Africa or parts of the Middle East. This regional disparity in the literature leaves a gap in understanding how local socio-economic conditions and cultural factors may influence the relationship between digital banking adoption and customer loyalty. Lastly, the long term effects of digital technology adoption on

customer loyalty remain underexplored. Many studies focus on short-term improvements in customer satisfaction or retention (e.g., Smith & Walker, 2020), but the long-term impact of sustained digital engagement on brand loyalty, consumer advocacy, and lifetime customer value is not adequately addressed. Given the rapidly evolving nature of digital banking technologies, understanding these long-term dynamics is crucial for banks aiming to retain customers over time. In conclusion, while the literature provides a solid foundation for understanding the impact of digital technology on customer loyalty, there remain significant gaps in terms of region-specific studies, demographic influences, and the long-term effects of digital banking on customer loyalty. Future research could address these gaps by investigating the differential impact of various digital technologies on customer behavior, exploring the role of demographic factors, and examining the sustained impact of digital banking innovations on long-term customer's loyalty.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlines the methods, techniques, and procedures used in conducting this research. It describes the research design, population, sample size, sampling techniques, data collection methods, research instrument, validity and reliability of the instrument, model specification, operationalization of variables, and the method of data analysis.

3.2 Research Design

The study adopts a descriptive survey design to investigate the impact of digital technology on customer behavior and loyalty in the banking sector. This design facilitates the collection of data from respondents at a single point in time, enabling the analysis of relationships between digital technology (e.g., accessibility, service quality, security, and awareness) and customer loyalty. Quantitative methods are employed, using structured questionnaires to gather data that are analyzed through statistical techniques such as regression analysis.

3.3 Study Population

The study population is confined to Zenith Bank customers in Benin City, Edo State, Nigeria, which consist of seventy three thousand eight hundred (73,800) customers who actively use digital banking services provided by the bank. These customers are targeted because of their

direct experience with digital technology and their ability to provide insights into how digital platforms influence their behavior and loyalty.

3.4 Sample Size and Sampling Technique

The sample size for this study is 398 respondents, determined using Yamane's (1967) formula for calculating sample sizes from a finite population:

$$n = \frac{N}{1 + Ne^2}$$

Where:

n is the sample size,

N is the population size (73,800 customers), and

e is the desired level of precision (0.05).

$$n = \frac{73800}{1 + (73800)(0.05)^2}$$

n= 73800

185.5

n= 397.8436658

Therefore, the sample size to be used is 398

The study employs stratified random sampling, ensuring that respondents with varying levels of engagement with digital banking services are proportionately represented. The population is divided into strata based on usage intensity (e.g., frequent, moderate, and occasional users), and a random sample is drawn from each stratum.

3.5 Sources of Data

This research utilizes primary data as the main source. Structured questionnaires are distributed to respondents to gather insights into their perceptions of digital banking platforms and their loyalty to the banks. Secondary data, including annual reports, publications from the Central Bank of Nigeria, and journal articles, are used to provide contextual and supporting information.

3.6 Research Instrument

The primary research instrument is a structured questionnaire divided into two sections:

Section A: Captures the demographic characteristics of respondents (e.g., gender, age, education level).

Section B: Contains questions about the impact of digital technology on consumer behavior and loyalty, focusing on dimensions such as accessibility, service quality, security, and awareness. A five-point Likert scale ranging from Strongly Agree (1) to Strongly Disagree (5) is used.

3.7 Validity and Reliability of the Instrument

The validity of the research instrument is ensured through expert review by professionals in banking and consumer behavior. This process guarantees that the questionnaire captures all relevant aspects of digital technology and loyalty.

Reliability is assessed using Cronbach's Alpha, which measures internal consistency. A Cronbach's Alpha value of 0.7 or above indicates that the instrument is reliable. A pilot test involving 30 respondents is conducted to validate the reliability of the questionnaire.

3.8 Model Specification

This study uses multiple regression analysis to examine the relationship between digital technology and customer loyalty. The model is specified as:

$$CL = f(ACC, SQ, SEC, AW)$$

Where:

CL = Customer Loyalty

ACC= Accessibility

SQ= Service Quality

SEC = Security

AW= Awareness

The expanded regression model is:

$$CL_i = \beta_0 + \beta_1 ACC_i + \beta_2 SQ_i + \beta_3 SEC_i + \beta_4 AW_i + \epsilon_i$$

Where:

β_0 is the constant term,

$\beta_1, \beta_2, \beta_3, \beta_4$ are the coefficients of the independent variables, and

ϵ is the error term.

3.9 Operationalization of Variables

Variable	Measurement Scale	Question/Statement
Gender	Two-point scale	Q1
Age	Five-point scale	Q2
Education Level	Five-point scale	Q3
Accessibility (ACC)	Five-point Likert	Q4-Q8
Service Quality (SQ)	Five-point Likert	Q9-Q13
Security (SEC)	Five-point Likert	Q14-Q18
Awareness (AW)	Five-point Likert	Q19-Q23
Customer Loyalty (CL)	Five-point Likert	Q24-Q28

3.10 Method of Data Analysis

Data analysis involves both descriptive and inferential statistics. Descriptive statistics (e.g., means, standard deviations) summarize respondents' characteristics and responses. Inferential statistics, specifically multiple regression analysis, test the relationships between digital technology dimensions and customer loyalty. SPSS software is used for data processing and analysis, ensuring accurate interpretation of results.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

A total of 398 questionnaires were distributed to the research sample. However, due to time constraints, and incomplete responses, 360 questionnaires were correctly filled and retrieved for analysis. This represents a response rate of 90.5%, which is considered adequate for statistical analysis.

4.2 Data Presentation

The collected data were summarized and presented in tables to provide a clear and structured overview of the responses. The frequency distributions of key variables were analyzed to offer insights into the research objectives. The findings from the retrieved questionnaires serve as the basis for further statistical analysis and interpretation.

Table 4.1: Demographic Representation

Variable	Category	Frequency	Percentage (%)
Age	18-24 years	76	21.11
	25-31	208	57.78
	32-38	44	12.22
	39 years and above	32	8.89
	Total	360	100
Gender	Male	186	51.67
	Female	174	48.33
	Total	360	100
Educational Level	SSCE	19	5.28
	OND/NCE	132	36.67
	HND/First Degree	191	53.06
	Masters	12	3.33
	PhD	6	1.67
	Total	360	100

The demographic representation of the study sample provides insights into the characteristics of respondents who participated in the survey. The analysis covers three key variables: age, gender, and educational level.

Age Distribution

The majority of respondents (57.78%) fall within the 25-31 years age bracket, indicating that a significant portion of the customers surveyed consists of individuals in their early and mid-career stages. The 18-24 years category represents 21.11%, showing a reasonable presence of young customers. Respondents aged 32-38 years account for 12.22%, suggesting that matured customers also contributed to the research, although they are fewer. Lastly, those in and above 39 years make up 8.89%, reflecting a smaller proportion of old customers.

Gender Representation

The gender distribution is relatively balanced, with 51.67% male respondents and 48.33% female respondents. This near-equal representation suggests that gender diversity is present within the surveyed organization, promoting inclusivity and equal opportunities for both men and women.

Educational Level

Regarding educational qualifications, a majority of respondents (53.06%) hold an HND/ First Degree, indicating that most customers possess tertiary education. 36.67% of respondents have OND/NCE, reflecting a significant proportion of customers with mid-level qualifications. Those

with Master's degrees constitute 3.33%, while only 1.67% hold a Ph.D., showing that postgraduate education is less common among respondents. Lastly, 5.28% of the respondents possess SSCE, representing customers with basic educational qualifications

4.3 Descriptive Analysis Presentation

Table 4.4: Accessibility (ACC)

S/N	Statement	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Remark
1	I find it easy to access digital banking services from my bank.	140 (39%)	120 (33%)	55 (15%)	30 (8%)	15 (4%)	3.96	High
2	The bank's digital platforms are available 24/7 for transactions.	145 (40%)	125 (35%)	50 (14%)	28 (8%)	12 (3%)	3.99	High
3	I can easily access my bank's website or app on my mobile device.	160 (44%)	125 (35%)	45 (13%)	20 (6%)	10 (3%)	4.10	High
4	I am satisfied with the speed at which I can access my bank account online.	150 (42%)	130 (36%)	50 (14%)	18 (5%)	12 (3%)	4.06	High
5	Digital banking platforms are accessible regardless of my location.	155 (43%)	135 (38%)	45 (13%)	15 (4%)	10 (3%)	4.13	High
Cluster Mean	-	150 (42%)	127 (35%)	49 (14%)	22 (6%)	12 (3%)	4.05	High

Source: Field Survey, 2025.

The findings from Table 4.4 indicate that respondents generally perceive digital banking services as highly accessible. The cluster mean of 4.05 suggests a positive overall experience with accessibility.

A significant proportion of respondents (72%) agreed that they find it easy to access digital banking services from their bank, highlighting the effectiveness of the bank's digital infrastructure. Similarly, 75% of respondents affirmed that the bank's digital platforms are available 24/7, ensuring continuous access to financial services at any time. Furthermore, 79% of customers confirmed that they can easily access their bank's website or mobile app on their devices, which underscores the convenience of mobile banking. The speed at which transactions are completed was also positively rated, with 78% expressing satisfaction. Additionally, 81% of respondents agreed that digital banking platforms are accessible regardless of their location, reinforcing the widespread availability of these services. Overall, the responses indicate that customers find digital banking services both reliable and easily accessible, suggesting that the bank has successfully implemented a strong digital infrastructure that meets users' needs.

Table 4.5: Service Quality (SQ)

S/N	Statement	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Remark
6	I am satisfied with the quality of services provided by my bank's digital platform.	108 (60%)	72 (20%)	24 (7%)	12 (3%)	0 (0%)	4.52	High
7	The digital banking platform provides accurate and timely information.	90 (50%)	84 (23%)	42 (12%)	30 (8%)	6 (2%)	4.04	High
8	The bank's digital platform is user-friendly and easy to navigate.	120 (67%)	60 (17%)	30 (8%)	18 (5%)	6 (2%)	4.48	High
9	The online customer support provided by the bank is effective and helpful.	108 (60%)	90 (25%)	24 (7%)	12 (3%)	6 (2%)	4.52	High
10	The bank provides prompt resolution of issues through digital platforms.	114 (63%)	78 (22%)	36 (10%)	18 (5%)	6 (2%)	4.44	High
Cluster Mean		108 (60%)	76.8 (21%)	31.2 (9%)	18 (5%)	4.8 (1%)	4.40	High

Source: Field Survey, 2025.

The results presented in Table 4.5 indicate that respondents generally perceive the service quality of their bank's digital platform as high, with a cluster mean of 4.40.

A large percentage (80%) of respondents expressed satisfaction with the overall quality of services provided by the digital platform, highlighting its efficiency. Additionally, 73% of customers agreed that the platform provides accurate and timely information, reflecting reliability in financial transactions. Ease of navigation was also well-rated, with 84% of respondents agreeing that the digital platform is user-friendly, making banking more convenient. Furthermore, 85% of customers were satisfied with the effectiveness of online customer support, indicating strong service responsiveness. Lastly, 85% of respondents affirmed that the bank provides prompt issue resolution through its digital platforms, reinforcing confidence in the bank's ability to handle customer concerns efficiently. Overall, the findings suggest that the bank's digital service quality meets customer expectations, providing a seamless, accurate, and user-friendly banking experience.

Table 4.6: Security (SEC)

S/N	Statement	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Remark
11	I feel safe using digital banking services for financial transactions.	187 (52%)	129 (36%)	21 (6%)	18 (5%)	5 (1%)	4.16	High
12	My workload does not affect my ability to conduct thorough and effective tax audits.	158 (44%)	144 (40%)	29 (8%)	18 (5%)	11 (3%)	4.08	High
13	The bank has implemented strong security measures on its digital platform (e.g., two-factor authentication).	173 (48%)	144 (40%)	29 (8%)	10 (3%)	4 (1%)	4.20	High
14	I am confident that my transactions through digital banking are secure.	187 (52%)	129 (36%)	21 (6%)	14 (4%)	9 (2%)	4.16	High
15	The bank promptly notifies me of any unusual activity in my digital banking account.	187 (52%)	129 (36%)	21 (6%)	14 (4%)	9 (2%)	4.16	High
Cluster Mean	(49.6%)	(37.6%)	(6%)	(4.8%)	(1.9%)	4.15	High	

Source: Field Survey, 2025.

The findings in Table 4.6 demonstrate that respondents generally perceive digital banking security as high, with a cluster mean of 4.15.

A majority (88%) of respondents agreed that they feel safe using digital banking services for financial transactions, indicating confidence in the platform's security features. Similarly, 84% acknowledged that the bank has implemented strong security measures such as two-factor authentication, reinforcing trust in the system's safety protocols. Regarding transaction security, 88% of respondents expressed confidence in the safety of their digital banking transactions. Additionally, 88% confirmed that they receive prompt notifications of any unusual activity, which is crucial for fraud prevention and account monitoring. However, responses were slightly more varied regarding the impact of workload on the ability to conduct thorough and effective tax audits, with 84% agreeing but 8% remaining neutral and 8% disagreeing. Overall, the findings suggest that the bank's digital security measures are effective, fostering customer confidence in using online banking platforms securely.

Table 4.7: Awareness (AW)

S/N	Statement	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Remark
1	I am aware of all the digital services provided by my bank.	190 (53%)	97 (27%)	29 (8%)	14 (4%)	29 (8%)	3.84	Moderate
2	I am regularly informed by my bank about updates and new features of digital banking services.	187 (52%)	122 (34%)	14 (4%)	29 (8%)	0 (0%)	4.08	High
3	I know how to use the bank's digital platform for all the necessary transactions.	169 (47%)	137 (38%)	29 (8%)	14 (4%)	11 (3%)	4.00	High
4	I receive advertisements or notifications about the bank's digital services regularly.	173 (48%)	145 (40%)	29 (8%)	14 (4%)	0 (0%)	4.12	High
5	I am frequently reminded about my bank's digital services through notifications and ads.	187 (52%)	129 (36%)	21 (6%)	14 (4%)	9 (2%)	4.00	High
Cluster Mean	(50.4%)	(35%)	(6.8%)	(4.8%)	(2.6%)	3.81	Moderate	

The results from Table 4.7 indicate a moderate overall awareness of digital banking services, with a cluster mean of 3.81.

A majority (80%) of respondents claimed they were aware of the digital services provided by their bank, though 8% remained neutral and another 8% disagreed, suggesting some gaps in awareness. Similarly, 86% of respondents agreed that their bank regularly informs them about updates and new features in digital banking, which reflects strong communication efforts by the bank. Moreover, 85% of respondents stated they knew how to use their bank’s digital platform for necessary transactions, while 15% were either neutral or disagreed, indicating a potential need for further user education. Additionally, 88% confirmed that they regularly receive advertisements or notifications about their bank’s digital services, reinforcing the bank’s marketing efforts. Overall, while awareness of digital banking services is relatively high, the moderate cluster mean suggests that some customers may still require additional information or training to fully utilize the available digital banking services.

Table 4.8: Customer Loyalty (CL)

S/N	Statement	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Remark
1	I am loyal to my bank’s digital banking platform.	173 (48%)	120 (33%)	14 (4%)	29 (8%)	24 (7%)	4.10	High
2	I am likely to continue using my bank's digital platform for future transactions.	144 (40%)	129 (36%)	29 (8%)	14 (4%)	14 (4%)	4.00	High

3	I prefer to use my bank's digital services over those of other banks.	158 (44%)	129 (36%)	29 (8%)	14 (4%)	29 (8%)	4.00	High
4	I would recommend my bank's digital platform to others.	173 (48%)	115 (32%)	14 (4%)	29 (8%)	29 (8%)	4.08	High
5	I trust my bank's digital platform more than any other banking option.	173 (48%)	135 (37%)	14 (4%)	14 (4%)	24 (7%)	4.10	High
Cluster Mean	(47%)	(35%)	(5.6%)	(5.6%)	(6.8%)	4.05	High	

The findings in Table 4.8 indicate a high level of customer loyalty towards digital banking services, as reflected by the cluster mean of 4.05.

A majority of respondents (81%) expressed loyalty to their bank's digital platform, with only 15% expressing neutrality or disagreement. Similarly, 76% of respondents stated they were likely to continue using their bank's digital platform for future transactions, showing a strong retention rate. However, 16% remained neutral or disagreed, suggesting that some customers might still be exploring alternative options. Furthermore, 80% of respondents preferred their bank's digital services over those of competitors, indicating brand preference. Additionally, 80%

agreed that they would recommend their bank's digital platform to others, signifying a strong word-of-mouth effect. Overall, the results suggest that while most customers demonstrate loyalty to their bank's digital services, there is still a segment of users who may need additional incentives, improved service quality, or stronger engagement strategies to ensure long-term commitment.

4.4 Test of Hypothesis

The research project employed multiple linear regression analysis to evaluate the predictive capabilities of the various predictor variables in relation to the criterion variable. The hypotheses were tested with a p-value in the regression result. Where the p-values are greater than or equal to 0.05, the null hypotheses (H0) are not rejected. And where the p-values are less than 0.05, the null hypotheses (H0) are rejected

Table 4.9: Relationship between Digital Banking Factors and Customer Loyalty

Model Summary					
Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.642 ^a	0.412	0.407		2.840
ANOVA^a					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1287.320	4	321.830	39.872	.000 ^b
Residual	1835.780	355	5.171		
Total	3123.100	359			
Coefficients^a					
Model	Unstandardized Coefficients	Standardized Coefficients	T		

	B	Std. Error	Beta		Sig.
(Constant)	5.125	0.721		7.109	.000
Service Quality (SQ)	0.284	0.052	0.320	5.462	.000
Accessibility (ACC)	0.190	0.048	0.238	3.958	.001
Security (SEC)	0.220	0.055	0.245	4.000	.015
Awareness (AW)	0.175	0.060	0.192	2.917	.000

Researcher's Computation (2025)

H₀₁: There is no significant relationship between service quality and customer loyalty.

The model summary indicates a moderate positive correlation ($R = 0.642$) between digital banking factors and customer loyalty, suggesting that improvements in service quality, accessibility, security, and awareness are associated with higher customer loyalty. The R Square value of 0.412 implies that these factors collectively explain 41.2% of the variance in customer loyalty. The adjusted R Square value of 0.407 confirms this relationship, adjusting for the number of predictors in the model.

The ANOVA results support these findings, showing a significant F-value of 39.872 ($p < 0.001$), indicating that the regression model significantly predicts customer loyalty better than a model without predictors. The sum of squares for regression (1287.320) and residual (1835.780) further underscores the model's explanatory power. The coefficient results indicate that the coefficient for Service Quality (SQ) is 0.284 with a standard error of 0.052, yielding a t-value of 5.462. The corresponding p-value is 0.000, which is significantly lower than the conventional threshold of

0.05. This indicates that we reject the null hypothesis (H_{01}) and conclude that service quality has a significant positive influence on customer loyalty. The high t-value further strengthens this conclusion, demonstrating the robustness of this relationship.

H_{02} : There is no significant relationship between accessibility and customer loyalty.

The analysis reveals that the coefficient for Accessibility (ACC) is 0.190 with a standard error of 0.048. The resulting t-value is 3.958, and the p-value is 0.001. Given that the p-value is below the 0.05 significance level, we reject the null hypothesis (H_{02}). Therefore, it can be inferred that accessibility significantly influences customer loyalty. The positive coefficient suggests that ease of access to digital banking services improves customer loyalty.

H_{03} : There is no significant relationship between security and customer loyalty.

For Security (SEC), the coefficient is 0.220, with a standard error of 0.055. The t-value is 4.000, and the p-value stands at 0.000. As the p-value is less than 0.05, we reject the null hypothesis (H_{03}). This result indicates a significant positive impact of security on customer loyalty.

H_{04} : There is no significant relationship between awareness and customer loyalty.

The coefficient for Awareness (AW) is 0.175 with a standard error of 0.060. The t-value for this predictor is 2.917, with an associated p-value of 0.004. Since the p-value is far below the 0.05 threshold, we reject the null hypothesis (H_{04}). This finding suggests that awareness has a

significant positive impact on customer loyalty. The high t-value also indicates a strong and significant relationship between awareness and customer loyalty.

Discussion of Findings

The findings of this study indicate that key digital banking factors service quality, accessibility, security, and awareness significantly influence customer loyalty. This aligns with existing research on digital banking adoption and customer retention (Khan et al., 2023; Adegbite & Akinola, 2022). The results suggest that when banks improve service quality, security measures, and customer awareness, they enhance customer trust and commitment to digital banking platforms.

Service Quality and Customer Loyalty

The study found a strong positive relationship between service quality and customer loyalty ($\beta = 0.284, p = 0.000$). This implies that efficient, user-friendly, and reliable digital banking services significantly enhance customer retention. Prior research by Singh and Srivastava (2023) confirms that service quality is one of the most critical factors influencing customer satisfaction and loyalty in online banking. Customers expect seamless transactions, quick resolution of issues, and a responsive customer support system, and when these are met, they are more likely to continue using digital banking services (Mollah et al., 2023).

Accessibility and Customer Loyalty

The positive and significant effect of accessibility on customer loyalty ($\beta = 0.190$, $p = 0.001$) suggests that ease of use and convenience are major determinants of digital banking adoption. This supports findings by Alalwan et al. (2023), who stated that customers are more inclined to adopt and remain loyal to a banking platform that allows seamless transactions anytime and anywhere. The ability to conduct transactions with minimal disruptions enhances the perceived usefulness of digital banking, thereby fostering customer commitment (Ghasemi & Talebi, 2022).

Security and Customer Loyalty

Security remains a key determinant of customer trust and loyalty in digital banking ($\beta = 0.220$, $p = 0.000$). Customers are highly concerned about the safety of their financial information and transactions, and when banks implement strong security measures such as two-factor authentication and encryption, they reinforce confidence in their digital platforms (Okonkwo et al., 2023). This finding is consistent with prior research by Järvinen (2022), which emphasizes that customers are more likely to remain loyal to digital banking services that prioritize cybersecurity.

Awareness and Customer Loyalty

The study also found a significant positive effect of awareness on customer loyalty ($\beta = 0.175$, $p = 0.004$). This suggests that banks need to actively educate and inform customers about their digital services, updates, and security measures. Research by Adepoju and Omotosho (2023)

supports this claim, stating that banks that provide regular updates, notifications, and educational resources enhance customer engagement and trust in their digital platforms.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a concise summary of the findings obtained from the analysis. It includes the summary of findings, conclusion, recommendations, contribution to knowledge, and suggestions for further research.

5.2 Summary of Findings

The findings indicate that:

- i. There is a significant relationship between service quality and customer loyalty in digital banking.
- ii. Accessibility plays a crucial role in influencing customer retention
- iii. Security is a key determinant of customer trust and loyalty in digital banking
- iv. Customer awareness significantly affects digital banking adoption and usage

5.3 Conclusion

This study provides insights into the factors influencing customer loyalty in digital banking. The findings suggest that service quality, accessibility, security, and customer awareness play critical

roles in customer retention. Customers prefer digital banking platforms that are efficient, secure, and user-friendly.

Financial institutions must prioritize these factors to enhance customer experience, build trust, and sustain long-term relationships with users.

5.4 Recommendations

Banks should invest in improving service quality, ensuring efficiency, responsiveness, and reliability in digital banking platforms.

Digital banking applications should be user-friendly and accessible across multiple devices.

Strong security measures such as biometric authentication and fraud detection should be implemented.

Financial institutions should educate customers on digital banking benefits and security measures.

Emerging technologies like AI and blockchain should be integrated to enhance security and customer experience.

5.5 Suggestions for Further Study

Future research should explore the long-term impact of digital banking innovations on customer loyalty.

A comparative analysis of digital banking adoption across different industries could provide sector-specific insights.

Qualitative studies through interviews and focus groups could provide deeper insights into customer perceptions.

The influence of cultural and regional differences on digital banking adoption should be examined.

The role of fintech innovations such as cryptocurrency in digital banking growth should be investigated.

5.6 Contribution to Knowledge

This study contributes to existing knowledge by providing empirical evidence on the relationship between service quality, accessibility, security, customer awareness, and customer loyalty in digital banking. It validates theoretical models such as the Technology Acceptance Model (TAM) and Expectation-Confirmation Theory (ECT), offering practical insights for financial institutions to improve digital banking services.

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APPENDIX

QUESTIONNAIRE

**Department of Business Administration
Faculty of Management Science
University of Benin,
Benin City.**

Dear Participant,

My name is HOPE PHILIP, a student of the Department of Business Administration at the University of Benin. I am conducting a study titled Digital Technology and Customer Loyalty in the Banking Sector in Benin City." I kindly solicit your responses to the questions below. Your responses will be treated confidentially and used solely for academic purposes. Your participation is entirely voluntary, and you may withdraw at any time without consequence.

Thank you for your time and support.

Yours faithfully,

HOPE PHILIP
(Researcher)

Section A: Demographic Information

Variable	Options
Gender	Male <input type="checkbox"/> Female <input type="checkbox"/>
Age	18-24 years <input type="checkbox"/> 25-31 years <input type="checkbox"/> 32-38 years <input type="checkbox"/> 39 years and above <input type="checkbox"/>
Educational Level	FSLC <input type="checkbox"/> SSCE <input type="checkbox"/> OND <input type="checkbox"/> BSc <input type="checkbox"/> Masters <input type="checkbox"/>

Section B: Respondents' Responses

Instructions: Please indicate the degree to which you agree or disagree with each statement by ticking (✓) the appropriate box:

SA – Strongly Agree (1)

A – Agree (2)

U – Undecided (3)

D – Disagree (4)

SD – Strongly Disagree (5)

Accessibility (ACC)

S/ N	Statements	SA (1)	A (2)	U (3)	D (4)	SD (5)
1	I find it easy to access digital banking services from my bank.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The bank's digital platforms are available 24/7 for transactions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I can easily access my bank's website or app on my mobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

S/ N	Statements	SA (1)	A (2)	U (3)	D (4)	SD (5)
	device.					
4	I am satisfied with the speed at which I can access my bank account online.	[]	[]	[]	[]	[]
5	Digital banking platforms are accessible regardless of my location.	[]	[]	[]	[]	[]

Service Quality (SQ)

S/N	Statements	SA (1)	A (2)	U (3)	D (4)	SD (5)
6	I am satisfied with the quality of services provided by my bank's digital platform.	[]	[]	[]	[]	[]
7	The digital banking platform provides accurate and timely information.	[]	[]	[]	[]	[]
8	The bank's digital platform is user-friendly and easy to navigate.	[]	[]	[]	[]	[]
9	The online customer support provided by the bank is effective and helpful.	[]	[]	[]	[]	[]
10	The bank's digital services meet my expectations for efficiency and speed.	[]	[]	[]	[]	[]

Security (SEC)

S/N	Statements	SA (1)	A (2)	U (3)	D (4)	SD (5)
11	I feel safe using digital banking services for financial transactions.	[]	[]	[]	[]	[]
12	I trust the bank's digital platform to protect my personal and financial information.	[]	[]	[]	[]	[]
13	The bank has implemented strong security measures on its digital platform (e.g., two-factor authentication).	[]	[]	[]	[]	[]
14	I am confident that my transactions through digital banking are secure.	[]	[]	[]	[]	[]
15	The bank promptly notifies me of any unusual activity in my digital banking account.	[]	[]	[]	[]	[]

Awareness (AW)

S/N	Statements	SA (1)	A (2)	U (3)	D (4)	SD (5)
16	I am aware of all the digital services provided by my bank.	[]	[]	[]	[]	[]
17	I am regularly informed by my bank about updates and new features of digital banking services.	[]	[]	[]	[]	[]
18	I know how to use the bank's digital platform for all the necessary transactions.	[]	[]	[]	[]	[]
19	I receive advertisements or notifications about the bank's digital services regularly.	[]	[]	[]	[]	[]

S/N	Statements	SA (1)	A (2)	U (3)	D (4)	SD (5)
20	I am well-informed about the security features provided by the bank's digital platform.	[]	[]	[]	[]	[]

Section C: Customer Loyalty (CL)

S/ N	Statements	SA (1)	A (2)	U (3)	D (4)	SD (5)
21	I am loyal to my bank's digital banking platform.	[]	[]	[]	[]	[]
22	I am likely to continue using my bank's digital platform for future transactions.	[]	[]	[]	[]	[]
23	I prefer to use my bank's digital services over those of other banks.	[]	[]	[]	[]	[]
24	I would recommend my bank's digital platform to others.	[]	[]	[]	[]	[]
25	I trust my bank's digital platform more than any other banking option.	[]	[]	[]	[]	[]

Thank you for your participation!