

Electronic payment system and the implementation of a cashless policy in the Nigerian economy: an overview

Samuel Dame^{1*}, Mide Philemon², Ibrahim Abubakar³

¹Department of Banking & Finance
Federal Polytechnic, Bali
Taraba State Nigeria

²Department of Accounting, School of Management Technology,
Federal Polytechnic Bali, P.M.B 05 Bali, Taraba State

³Department of Banking & Finance,
Modibbo Adama University, Yola

Abstract

This study investigates the role of electronic banking in driving Nigeria's cashless policy and its broader impact on the financial sector between 2023 and 2025. Anchored on the Technology Acceptance Model (TAM) and the Innovation Diffusion Theory (IDT), the study explores how user perception, technological infrastructure, and social influence affect the adoption of e-banking services. Data drawn from industry reports and recent empirical studies reveal a significant surge in electronic transactions, with values increasing from ₦600.36 trillion in 2023 to ₦1.07 quadrillion in 2024, highlighting growing reliance on digital channels. Despite this growth, the policy's implementation exposed critical challenges, including rural cash shortages, digital illiteracy, weak cybersecurity, and infrastructural gaps. The findings indicate that while e-banking has enhanced efficiency, financial inclusion remains uneven. The study recommends upgrading ICT infrastructure, strengthening cybersecurity, promoting financial literacy, and encouraging fintech-bank partnerships. A phased policy approach is also advocated to reduce implementation shocks. These measures are essential to unlocking the full potential of Nigeria's cashless economy and ensuring equitable digital financial inclusion.

Keywords: Electronic Payments, Cashless Policy, Digital Payment Systems, Financial Inclusion

1. Introduction

Sustainable economic development is the main focus of nations across the globe. This focus is anchored on enabling most member states of the United Nations General Assembly to attain the seventeen (17) Sustainable Development Goals (SDGs) by the year 2030. These SDG goals are seen as the most economic, social, demographic and humanitarian programmes that would guarantee good living, economic and social wellbeing of the citizens as well as promotion of equity and peace among member states. Nigeria is a member state and has been pursuing these SDGs goals since it was launched in 2015; thereby, all states within the Nigerian nation have also consciously initiated policies and programmes towards attaining these goals. (CBN, 2016; Ayinde et al, 2018). Electronic banking (E-Banking) is the delivery of banking services by

* Corresponding Author

Email Address: samueldame19@gmail.com (Samuel Dame)

means of electronic channels, which facilitates customers' access to banking and financial services without any physical contact with or visit to any bank branch (Auta, 2010). According to Agba (2010), "electronic payment is a method of effecting payment from one end to another through the medium of the computer without manual or physical intervention beyond inputting the payment data" This system promotes transparency, accountability and reduces the rate of fraudulent financial practices since only inputted payment information are of manual application. This view was backed by Ogedebe and Jacob (2012) when they opined that e-payment reduces interaction of government officials and contractors to eliminate opportunities for corruption tendencies.

The adoption of electronic banking in Nigeria can be traced back to the late 1980s when financial institutions began to adopt technology and innovation in order to improve service delivery to ensure customer satisfaction. The Structural Adjustment Programme (SAP) in 1986 triggered banking sector reforms, thereby compelling the financial sector to adopt modern banking innovations such as computer-based transactions and automated teller machines (ATMs) (Agboola, 2006).

The late 1980s gave birth to the emergence and deployment of automated teller machines in Nigeria. At the same time, First Bank necessitated the widespread deployment of the ATM network nationwide in 1996, setting the pace for modern system of banking (Oluwatolani, Joshua and Philip, 2011). However, due to regulatory frameworks issued by the Central Bank of Nigeria (CBN) and the advancement in information and telecommunications services, the full adoption of electronic banking occurred in the early 2000s. In 2002, the CBN issued the Guidelines on Electronic Banking for banks to offer mobile banking, electronic transfer and online banking services (CBN, 2002). The consolidated banking reforms in 2004-2006 further deepened the adoption and implementation of the E-platforms, which induced financial institutions to upgrade their technological capabilities in order to meet increasing demands for efficiency and global competition (Adesina and Ayo, 2010).

Today, the banking environment in Nigeria is more technologically inclined owing to the adoption and implementation of E-banking platforms such as internet banking, mobile Apps, USSD banking and various payment gateways, which aligned with global trends in financial technology (fintech).

The monetary system in Nigeria has evolved over the years from barter to the modern, technologically innovative system. The CBN defines monetary policy as "a deliberate action taken by the monetary authority to regulate the value, cost and supply of money in the economy with the view to achieving a predetermine macroeconomic objectives of price stability and sustainable economic growth" (CBN, 2001). In Nigeria, the cashless policy was introduced by the Central Bank of Nigeria (CBN) aimed at reforming the financial sector and modernising the payment system to curb corruption and enhance efficiency in the economy. In fact, the cashless policy is part of the Vision 2020, which Nigeria is expected to be one of the top 20 economies in 2020. Even though officially launched in January 2012 with Lagos as the pilot phased, it was later expanded to major cities in the country such as Port Harcourt, Kano, Enugu and Abuja in 2014 (Nwankwo & Eze, 2013; Ajayi, 2014). This policy has the capability of facilitating the growth of the Nigerian economy, lowering banking costs and promoting financial inclusion. The cashless policy is widely viewed as a regulatory and technological framework geared towards reducing the use of physical currency with the view of encouraging electronic payment systems. Vimal Raj et al (2023) viewed the cashless policy as a payment method that eliminates physical cash, including mobile wallets, QR payments and payment cards, which are supported by policy measures designed to enhance efficiency and traceability in the banking system. While Mezoh and Zhou (2014) see it as an institutional framework that facilitates digital or electronic payment alternatives globally, which emphasised their usefulness in terms of reduced transaction cost, convenience and enhanced financial sector transparency and accountability.

In October 2022, the Central Bank of Nigeria (CBN) announced the redesigning of ₦200, ₦500 and ₦1000 notes to curtail money laundering, counterfeiting, reduce hoarding and promote a cashless economy. This was followed by a directive from the apex bank that all old notes be return to the banks by 10 February, 2023, after which cash withdrawals were seriously limited to ₦20,000 for individuals per day or ₦100,000 per week, while ATM withdrawals were set at ₦20,000 per day loaded with ₦200 denomination and below

(Central Bank of Nigeria, 2022; Independent, 2023). This policy represents a dual monetary and financial inclusion reform strategy deployed by the apex bank to further tightened exiting policies in order to accelerate the adoption of electronic payment channels such as mobile banking apps, internet transfers, Point-of-Sale terminals and e-Naira (Nigeria's digital currency) (Nwokoma, Ifionu & Omojefe, 2024). However, the implementation of the cashless policy triggered severe challenges, leading to shortages of new notes owing to slow circulation of the new notes. Rural communities suffer the most due to geographic isolation and lack of financial services. According to the National Bureau of Statistics (2023), the GDP of Nigeria dropped to 2.31% in Q1 2023, compared to 3.52% in the previous quarter, due to disruptions in cash-based transactions of that period. But despite these challenges, the policy has boosted significantly E-banking transactions, even though many scholars criticised the policy for its rush, inadequate planning, insufficient public sensitisation and weak digital infrastructure to support the transaction (Otitoju et al, 2023; Akinsolodee, 2023).

The advancement of Information and Communication Technology (ICT) has reshaped the financial sector, with e-banking and cashless policies stimulating modernisation. The introduction of the cashless policy in 2012 by the Central Bank of Nigeria was to reduce cash dependency, enhance transparency, curb money laundering, and improve an efficient payment system through digital platforms like mobile banking, internet transfers, ATMs, and POS terminals (CBN, 2012; Ezeoha, 2021). However, inadequate infrastructure, epileptic connectivity, cybersecurity risks, and inadequate digital literacy have constrained its success (Okoye & Eze, 2023; Mezoh & Zhou, 2024). The 2023-naira redesign and strict cash withdrawal limits worsened the challenges, causing cash shortages, transaction failures, and economic disruptions, particularly in rural areas (Nwokoma, Ifionu, & Omojefe, 2024). While electronic banking transactions surged, fraud, weak infrastructure, and poor public awareness remain obstacles (Nwankwo & Eze, 2023). These challenges reveal a gap between policy goals and reality, casting doubt on the sustainability of Nigeria's cashless policy in enhancing financial inclusion, reducing costs, and boosting economic growth unless critical structural issues are resolved.

The objectives of the study are:

- i. to quantify the impact of electronic banking channels on the rollout and success of Nigeria's cashless policy;
- ii. to examine the infrastructural, behavioural, and security challenges limiting the adoption of electronic banking systems.

The study is significant as it outlines the impact of electronic banking in digitising Nigeria's financial sector and reducing dependence on cash transactions. It also provides empirical insights into transaction trends and challenges affecting the cashless policy's effectiveness. The findings guide policymakers, banks, and financial technology (FinTech) in addressing infrastructural and cybersecurity gaps.

The next section of this presents the literature review, which consists of conceptual reviews, theoretical review, empirical review and theoretical framework. While section three centres on the methodology, which consists of the research design, sources of data, and techniques of analysis. Section four is the data presentation and analysis, which is made up of data presentation and interpretation of results. While section five captures the summary, conclusions and recommendations.

2. Literature Review

2.1 Conceptual review

Electronic banking (e-banking) involves the deployment of banking services through electronic platforms such as internet banking, mobile applications, Automated Teller Machines (ATMs), and Point-of-Sale (POS) terminals, to enable customers to perform transactions digitally and in real time (Adewoye, 2013). E-banking enhances convenience, reduces transaction costs, and lowers reliance on cash-based systems (Ezeoha, 2021). A cashless policy, on the other hand, is a monetary policy strategy designed to reduce physical cash by enhancing electronic payment alternatives, including debit cards, USSD transfers, mobile wallets, and online

payment systems (Central Bank of Nigeria [CBN], 2012). The cashless policy in Nigeria was launched in 2012 and aims to enhance transparency, reduce money laundering, and modernise the payment infrastructure (Okoye & Eze, 2023). Electronic banking is the primary tool through which the objectives of a cashless policy are operationalised.

2.2 Theoretical Review

This study draws upon three key theories: the Technology Acceptance Model (TAM), Innovation Diffusion Theory (IDT), and Financial Intermediation Theory to contextualise both the behavioral and institutional dynamics influencing technology-driven financial reforms.

The Technology Acceptance Model (TAM), which Davis developed in (1989), is considered one of the most widely recognised frameworks that explain individual adoption of technology. The model identifies “two primary constructs: Perceived Usefulness (PU), which denotes the degree to which a person believes that using a particular technology would enhance their job performance or effectiveness, and Perceived Ease of Use (PEOU), which refers to the extent to which a person believes that using the technology would be free of effort”. In the context of electronic banking, these perceptions are pivotal. When customers view internet and mobile banking as convenient, efficient, and user-friendly, their likelihood of adoption increases. TAM thereby offers a behavioural framework for assessing how user attitudes and beliefs influence the uptake of digital financial services, which are critical to the success of cashless policy initiatives.

In a broader socio-technological context, the Innovation Diffusion Theory (IDT), as proposed by Rogers (2003), provides additional insight into how innovation systems spread within society. IDT “identifies five stages of the innovation-decision process: knowledge, persuasion, decision, implementation, and confirmation and highlights five attributes that significantly influence adoption: relative advantage, compatibility, complexity, trialability, and observability”. These attributes are particularly relevant in evaluating how diverse population segments in Nigeria engage with new banking technologies. For example, when digital payment systems are seen as more advantageous, compatible with users’ values, and easy to experiment with, the probability of adoption increases. IDT thus explains how communication channels, social influence, and user experiences collectively shape the diffusion of technological innovations in financial services.

Furthermore, the Financial Intermediation Theory offers an institutional perspective on the transformation enabled by electronic banking. According to Scholtens and van Wensveen (2003), financial intermediaries such as commercial banks serve to mitigate transaction costs, reduce information asymmetries, and improve capital allocation between surplus and deficit economic units. Electronic banking enhances these intermediary functions by leveraging digital tools to facilitate faster transactions, improve financial transparency, reduce overhead costs, and expand outreach, particularly to underserved and unbanked populations. Through automated platforms, banks can offer services such as online transfers, digital credit assessments, and electronic bill payments, thereby contributing to greater operational efficiency and financial inclusion.

Taken together, these theories underscore the multifaceted nature of technology adoption and institutional transformation in Nigeria’s cashless banking ecosystem. While TAM emphasises individual behavioral intent based on perceived benefits and ease of technology use, IDT elaborates on the systemic and communicative processes that facilitate the broader diffusion of innovations. Financial Intermediation Theory, in contrast, focuses on the structural and economic functions of banks, enhanced through digitalisation. Collectively, these theoretical frameworks provide a comprehensive foundation for analysing the determinants of electronic banking adoption and the efficacy of cashless policy implementation in emerging economies like Nigeria.

2.3 Empirical Review

Empirical studies on e-banking and cashless policies in Nigeria reveal both progress and challenges. Onuegbu et al. (2025) examined the 2023 cash crisis. They found that only 36% of respondents were aware

of e-banking prior to the crisis, while communication effectiveness (59%) was a key driver of adoption. Similarly, Enueshike et al. (2025), using VAR and OLS analysis, reported a positive impact of ATM transactions on financial sector growth but negative effects for POS and mobile banking, attributed to poor infrastructure and transaction failures. Adagiri and Babalola (2022) found that cashless policies enhance financial inclusion, but high transaction charges discourage widespread use. Iwedi (2024), applying Granger causality tests, confirmed that mobile banking and ATMs significantly predict economic growth.

Using ARDL models, Ologbenla (2023) showed that POS and internet banking positively affect financial inclusion, while ATM usage remains insignificant. Udoinyang et al. (2024) emphasised that cashless policies improve transparency and reduce cash-related crimes but face implementation challenges such as fraud and weak networks. Ajao et al. (2023) identified social influence and network effects as critical to mobile payment adoption, while Yusuf and Bala (2021) linked user satisfaction to service reliability in e-banking. Nwani et al. (2020) found that cheque usage has declined, while electronic transactions have surged, reflecting partial success of the policy.

Ikpefan et al. (2018) observed that e-banking had not significantly reduced cash in circulation, suggesting the need for public sensitisation. Seriki Akinadewo et al. (2024) revealed that cashless policies have mixed effects on fraud investigations, while Marshal Iwedi (2024) highlighted the positive correlation between e-banking and GDP. Chukwu and Okafor (2023) analysed post-naira redesign transactions and noted an increase in e-transfers but persistent rural failures. Eze and Nwankwo (2023) showed that financial literacy mediates the success of cashless policies. Together, these studies underscore that while electronic banking drives financial modernisation, infrastructural, literacy, and security challenges remain major hurdles.

Akinyemi and Adesola (2023) investigated the role of digital banking platforms in enhancing access to finance for small and medium-sized enterprises (SMEs) in Lagos State. Their study found that mobile banking applications significantly improved SMEs' ability to obtain short-term credit, particularly for working capital needs. However, persistent challenges such as poor internet connectivity, power outages, and inadequate customer support systems limited the full exploitation of these platforms. Similarly, Obasi and Udeh (2022) used a logistic regression model to explore consumer adoption of mobile banking services. They discovered that perceived security and trust in digital systems were the most influential predictors of adoption, surpassing convenience and transaction speed. This highlights that technological sophistication alone is not sufficient; users must also feel safe and confident in the system.

Adeyeye et al. (2021) assessed the urban-rural divide in the adoption of cashless policy tools. Their findings showed that while urban areas experienced a 17% reduction in cash-based retail transactions between 2018 and 2020, rural areas lagged due to low literacy levels, limited awareness, and infrastructural deficiencies such as lack of POS agents and mobile network coverage. Owolabi and Fatoki (2023), using panel data from selected Nigerian banks between 2015 and 2022, found that increased usage of POS terminals and internet banking services positively influenced bank profitability by widening net interest margins and reducing transaction costs. However, they cautioned that system downtimes and fraud risks could erode these gains if not addressed.

In a macroeconomic context, Anyanwu and Uzochukwu (2020) employed time-series econometrics to study the relationship between ATM usage and inflation in Nigeria. Their results revealed that frequent ATM withdrawals increase the velocity of money in circulation, which in turn exacerbates inflationary pressures—posing a challenge to monetary policy effectiveness. On the other hand, Olaniyan and Ajayi (2023) focused on gender inclusion. They found that mobile banking significantly enhanced women's access to microloans and savings platforms, particularly among informal market traders in Oyo and Ogun States. This aligns with broader development goals aimed at promoting financial equality.

Ekong and Effiong (2022) analysed consumer spending behaviours under a cashless economy. Their survey results showed that while customers appreciated the convenience of electronic payments, transaction failures occurred, especially during peak periods. Meanwhile, Mohammed and Ahmed (2021) examined the impact of cybersecurity concerns on the adoption of e-banking using a structural equation model. They found that

perceived vulnerability to online fraud significantly discouraged e-banking usage, particularly among users aged 40 and above, who preferred traditional banking due to lack of digital literacy and fear of financial loss.

Odu and Ekene (2022) explored the effect of the Central Bank of Nigeria's 2022 sensitisation campaigns on market women in Enugu State. The study revealed that the campaigns led to a noticeable increase in the use of mobile transfer services; however, persistent transaction failures, distrust of mobile agents, and inadequate digital infrastructure meant that many women reverted to cash transactions. Lastly, Okeke and Fatai (2023) employed the Autoregressive Distributed Lag (ARDL) model to examine the long-run impact of mobile banking on financial deepening in Nigeria. Their findings showed a statistically significant and positive relationship, suggesting that sustained growth in mobile banking adoption would continue to expand access to credit, savings, and payment systems, particularly among underserved populations.

2.4 Theoretical Framework

This study is theoretically anchored on the Technology Acceptance Model (TAM) and the Innovation Diffusion Theory (IDT), both of which provide complementary perspectives for understanding the adoption of electronic banking and the broader implementation of Nigeria's cashless policy. The Technology Acceptance Model (TAM), developed by Davis (1989), offers a behavioural framework that posits that users' intention to adopt new technologies is primarily influenced by two critical factors: Perceived Usefulness, the degree to which a person believes that using a particular system would enhance their performance and Perceived Ease of Use, the extent to which the technology is seen as free from effort. In the context of e-banking, when customers perceive electronic platforms such as mobile banking, internet transfers, and USSD systems as beneficial and user-friendly, their likelihood of adoption increases. TAM thus helps explain the psychological and attitudinal factors that shape user behaviour in response to digital financial tools.

On the other hand, the Innovation Diffusion Theory (IDT), as proposed by Rogers (2003), emphasises the social and systemic processes that influence how innovations spread across a population. IDT outlines key stages in the diffusion process: knowledge, persuasion, decision, implementation, and confirmation and identifies five characteristics of innovations that affect their adoption: relative advantage, compatibility, complexity, trialability, and observability. These attributes are particularly useful for analysing the diffusion of digital financial innovations such as point-of-sale (POS) terminals, digital wallets, and mobile banking apps. For instance, awareness campaigns, peer influence, and community demonstrations significantly shape how different socioeconomic groups engage with and accept such technologies.

By integrating TAM and IDT, this study adopts a holistic theoretical lens to examine not only the individual-level behavioural factors (e.g., perception, trust, ease of use) but also the broader social, communicative, and infrastructural dynamics that condition the adoption of e-banking systems. This dual-framework approach is particularly relevant to the Nigerian context, where cashless policy implementation faces multifaceted challenges, including low digital literacy, poor telecommunications infrastructure, inconsistent power supply, and varying levels of trust in financial institutions. Therefore, this study investigates how technological readiness, user perception, and systemic enablers such as awareness and network reliability collectively shape the effectiveness and sustainability of the cashless policy in Nigeria's evolving financial landscape.

3. Methodology

This study adopts a descriptive and analytical research design, relying on secondary data from reputable institutions such as the Nigeria Inter-Bank Settlement System (NIBSS) and the Central Bank of Nigeria (CBN) between 2023 and Q1 2025. Descriptive statistics (percentages, growth rates, and trends) were applied to evaluate transaction volumes and values across different channels. The chosen methodology is appropriate because the success of cashless policies can best be assessed using historical transaction data, policy documents, and official reports on e-banking performance. Trend analysis highlights the impact of policy interventions (e.g., 2023-naira redesign) and fintech growth on electronic payment systems.

4. Discussion of Results

Nigeria’s E-Payment Trends (2023-Q1 2025)

The data from NIBSS and CBN indicate a rapid transformation in Nigeria’s payment ecosystem. In 2023, electronic payment channels recorded a total volume of 11.05 billion transactions, valued at ₦600.36 trillion. This growth was largely driven by increased adoption of mobile apps, internet banking, and POS terminals due to the currency redesign policy of 2023. In 2024, electronic payment values surged to ₦1.07 quadrillion, marking a growth rate of nearly 80% compared to 2023. This unprecedented increase can be attributed to the Central Bank’s cash withdrawal restrictions and aggressive push toward digital transactions. By Q1 2025, transaction values hit ₦284.9 trillion, representing a 22% year-on-year increase compared to Q1 2024.

Table 1: Nigeria’s E-Payment Transaction Trends (2023-Q1 2025)

Period	Volume (billion)	Value (₦ trillion)
2023	11.05	600.36
2024	11.20	1,070
Q1 2025	2.21	284.9

Sourced from NIBSS (2023-2025); Punch (2023); Nairametrics (2025).

Channel Breakdown first half (H1 2024)

Nigeria’s e-banking growth is distributed across five major digital channels: Internet transfers, POS, mobile banking apps, ATMs, and USSD transfers. Internet transfers recorded the highest transaction volume (11.64 billion) in H1 2024. POS terminals, despite limited availability in rural areas, processed 6.4 billion transactions. Mobile banking apps recorded 3.49 billion transactions, largely driven by smartphone penetration. ATMs and USSD usage remain relatively low, suggesting that customers now prefer contactless and app-based transfers over cash withdrawals.

Table 2: Channel Breakdown of E-Payment Transactions in Nigeria (H1 2024)

Chennel	Transaction Volume (billion)
Internet Transfers	11.64
Point of Sale (POS)	6.40
Mobile Apps	3.49
Automated Teller Machines (ATMs)	0.50
USSD transfers	0.25

Sourced from CBN and NIBSS (2024).

Sectoral Drivers and Challenges

The rapid adoption of e-banking has been propelled by: Fintech Innovation - Companies like OPay, PalmPay, and Paga have provided user-friendly digital wallets for the unbanked population; Government Policies - The cashless policy and naira redesign encouraged digital transactions; Behavioural Shifts - The COVID-19 pandemic accelerated digital payment habits. Challenges: Infrastructure Deficiency: Poor network connectivity and frequent downtime; Cybersecurity Threats: Rising incidents of fraud undermine public trust; Digital Literacy: Many rural dwellers lack knowledge of e-banking platforms.

4.2 Discussion of Findings

The sharp increase in transaction volumes and values from 2023 through the first quarter of 2025 clearly illustrates a strong correlation between policy interventions such as the Central Bank of Nigeria's (CBN) cashless policy enforcement and naira redesign initiative and the accelerated adoption of electronic banking channels. The volume of transactions rose remarkably, indicating a behavioural shift among individuals and businesses toward digital payment systems. This trend reflects growing confidence in electronic platforms and the increasing role of fintech in financial intermediation. However, while these figures signal progress on the surface, a deeper analysis reveals critical systemic weaknesses that have limited the policy's inclusiveness and sustainability.

One of the most notable challenges emerged during the 2023-naira redesign policy, which resulted in widespread cash shortages, particularly in rural and underserved areas. This exposed the structural fragility of Nigeria's financial ecosystem, where electronic infrastructure remains unevenly distributed and heavily concentrated in urban centres. Many rural dwellers, reliant on cash-based transactions, were disproportionately affected due to limited access to functional banking services, inadequate numbers of point-of-sale (POS) agents, and intermittent network coverage. Furthermore, the cashless drive did not sufficiently accommodate low-tech and digitally illiterate users, who struggled to transition to digital platforms amid poor sensitisation and weak support systems.

Despite significant innovations introduced by fintech firms, including mobile banking applications, agency banking networks, and USSD-based services, financial exclusion persists at an alarming scale. According to recent estimates, approximately 38 million Nigerians remain outside the formal financial system. This exclusion is largely attributed to low internet penetration, especially in rural communities, as well as widespread digital illiteracy, which hinders the effective use of available platforms. These findings highlight that while electronic banking has gained momentum in urban areas and among tech-savvy demographics, the broader objective of financial inclusion remains only partially achieved.

Therefore, the data suggest that the success of Nigeria's cashless policy is contingent not only on policy directives or technological innovation but also on the development of enabling infrastructure, targeted digital education, and inclusive financial strategies that address the specific needs of marginalised populations. Without deliberate efforts to close the digital divide, policy gains may remain skewed and deepen existing inequalities in financial access and participation.

5. Conclusion and Recommendation

Electronic banking has emerged as a pivotal component of Nigeria's financial modernisation agenda, offering significant benefits in terms of operational efficiency, transparency, and reduced reliance on physical cash. By facilitating seamless transactions across various digital platforms, including mobile banking, internet transfers, POS, and USSD services, e-banking systems have contributed to faster service delivery, lower transaction costs, and enhanced convenience for users. The remarkable increase in the total value of electronic transactions from ₦600.36 trillion in 2023 to ₦1.07 quadrillion in 2024 serves as compelling evidence of its growing economic significance and public adoption. This surge reflects a deepening integration of digital channels into everyday financial behaviour, driven in part by policy reforms and the growing footprint of fintech companies. However, the sustainability and inclusiveness of this digital transformation remain threatened by persistent challenges such as frequent network downtime, rising incidents of cyber fraud, and widespread digital illiteracy, especially among rural populations and older people. Unless these structural barriers are systematically addressed through investments in infrastructure, enhanced cybersecurity frameworks, and targeted digital literacy campaigns, the full benefits of a cashless economy will remain unevenly distributed, thereby limiting the transformative potential of electronic banking in Nigeria's socioeconomic development.

The study recommends:

- i. that the government should support Nigeria's growing electronic banking ecosystem, significant investment is needed in ICT and broadband infrastructure. Enhancing digital connectivity, especially in rural and underserved areas, will reduce downtimes and improve the reliability and efficiency of financial transactions nationwide.
- ii. As digital transactions increase, so do the risks of cyberattacks and fraud. Financial institutions should deploy advanced, AI-powered fraud detection systems capable of real-time monitoring.

Regulatory authorities must enforce strict cybersecurity standards and mandate periodic audits to secure customer data and reinforce public trust.

- iii. A successful cashless economy depends on citizens' ability to understand and use digital tools. Nationwide financial literacy campaigns tailored to local languages and cultures should educate people, particularly in rural and semi-urban areas, on mobile banking, USSD transactions, and digital safety practices.
- iv. Fintech companies offer technological innovation, while banks provide trust and reach. Incentivising partnerships between the two can expand access to digital financial services, particularly in areas with limited banking infrastructure, thereby accelerating financial inclusion.
- v. Sudden policy shifts, such as the naira redesign or cash withdrawal limits, can disrupt the economy and create public anxiety. A phased, well-communicated reform approach allows for stakeholder consultation, system preparation, and smoother public adoption, ensuring policy effectiveness and stability.

References

- Adagiri, T., & Babalola, A. (2022). Impact of cashless economic policy and financial inclusiveness in Nigeria: An empirical investigation. *Journal of Economics and Finance*, 14(2), 45-56.
- Adesina, A. A., & Ayo, C. K. (2010). An empirical investigation of the level of users' acceptance of e-banking in Nigeria. *Journal of Internet Banking and Commerce*, 15(1), 1-13.
- Adewoye, J. O. (2013). Impact of mobile banking on service delivery in the Nigerian commercial banks. *International Review of Management and Business Research*, 2(2), 333-344.
- Adeyeye, O. A., Salawu, A., & Ogundele, R. (2021). *Urban-Rural Gaps in Cashless Policy Implementation in Nigeria*. African Journal of Banking and Digital Finance, 6(3), 77-91.
- Agba, D. Implications and Challenges of E-payment System, 2010. Retrieved from <http://www.itnewafrica.com> on 15 March, 2019.
- Agboola, A. A. (2006). Electronic payment systems and tele-banking services in Nigeria. *Journal of Internet Banking and Commerce*, 11(3), 1-10.
- Akinyemi, B., & Adesola, T. (2023). *Digital Banking and SME Financing in Lagos State*. Journal of Financial Innovation and Development, 11(1), 22-36.
- Anyanwu, K. M., & Uzochukwu, O. B. (2020). *ATM Usage and Inflation Dynamics in Nigeria*. Nigerian Journal of Monetary Policy Studies, 5(2), 12-26.
- Auta, E. M. (2010). E-banking in developing economy: Empirical evidence from Nigeria. *Journal of Applied Quantitative Methods*, 5(2), 212-222.
- Central Bank of Nigeria (CBN). (2002). *Guidelines on electronic banking in Nigeria*. Abuja: CBN Press.
- Central Bank of Nigeria (CBN). (2011). *Further cashless policy guidelines*. Abuja: CBN Press.
- Central Bank of Nigeria (CBN). (2012). *Guidelines on Cashless Policy*.
- Central Bank of Nigeria (CBN). (2022). *Revised cash withdrawal limits and naira redesign policy*. Abuja: CBN Press Release.
- Chukwu, I., & Okafor, L. (2023). Cashless policy and transaction efficiency after the naira redesign. *Nigerian Journal of Banking and Finance*, 11(2), 88-104.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Ekong, E., & Effiong, J. (2022). *Cashless Policy and Consumer Spending Patterns in Nigeria*. Journal of Retail and Digital Commerce, 7(1), 59-73.
- Eze, T., & Nwankwo, L. (2023). Financial literacy, fintech adoption, and cashless policy outcomes in Nigeria. *International Journal of Economics and Policy*, 9(4), 110-124.
- Ezeoha, A. (2021). *ICT and Financial Modernisation in Nigeria*. African Journal of Economics.
- Ikpefan, O., Osuma, G., & Igbinoia, M. (2018). Electronic banking and cashless policy in Nigeria. *Journal of Internet Banking and Commerce*, 23(2), 1-15.
- Independent. (2023). The pains of the naira redesign policy. *Independent Nigeria*. Retrieved from <https://independent.ng/the-pains-of-the-naira-redesign-policy/>
- Iwedi, M. (2024). Cashless policy and its impact on the Nigerian economy. *International Journal of Banking and Finance*, 12(1), 56-74.
- Marshal, I. (2024). E-banking channels and economic growth in Nigeria: Evidence from Granger causality. *African Journal of Economic Policy*, 13(2), 92-105.
- Mezoh, P. M., & Zhou, X. (2024). Exploring the advantages of cashless payment systems: A comprehensive review. *International Journal of Research and Innovation in Social Science (IJRISS)*, 8(1), 1-9
- Mohammed, A. A., & Ahmed, S. A. (2021). *Cybersecurity Risks and E-Banking in Nigeria*. West African Journal of Information Security and Technology, 4(3), 88-104.
- Nairametrics (2025). *E-Payment Transactions in Nigeria Hit ₦284.9tn in Q1 2025*
- National Bureau of Statistics (NBS). (2023). *GDP report Q1 2023*. Abuja: NBS.
- NIBSS (2023, 2025). *E-Payment Statistics*. Retrieved from <https://nibss-plc.com.ng>
- Nwani, J., Okeke, M., & Olowu, B. (2020). An empirical analysis of cashless policy and its impact on the Nigerian economy. *Journal of Economic Development Studies*, 8(3), 33-49.
- Nwankwo, O., & Eze, O. R. (2013). Electronic payment in cashless economy of Nigeria: Problems and prospects. *Journal of Management Research*, 5(1), 138-151.
- Nwankwo, O., & Eze, T. (2023). *Electronic Banking Challenges in Nigeria*.

- Obasi, C. J., & Udeh, P. E. (2022). *Determinants of Mobile Banking Adoption among Nigerian Consumers*. *Journal of Contemporary Banking Research*, 9(2), 45-58.
- Odu, L. O., & Ekene, U. (2022). *Cashless Policy Awareness and Market Participation in Southeast Nigeria*. *Nigerian Journal of Economic Policy and Research*, 11(2), 6-80.
- Ogedebe, P.M. and Jacob, B.P. E-payment: Prospects and Challenges in Nigerian Public Sector. *International Journal of Modern Engineering Research*, 2(5): 3104-3106, 2012.
- Okeke, A. N., & Fatai, M. T. (2023). *Mobile Banking and Financial Deepening in Nigeria*. *Journal of Digital Finance and Development Economics*, 9(1), 25-40.
- Olaniyan, Y., & Ajayi, B. (2023). *E-Banking and Women's Financial Inclusion in Southwest Nigeria*. *Journal of Development Finance*, 10(4), 19-33.
- Ologbenla, D. (2023). Financial inclusion and electronic banking in Nigeria: ARDL approach. *Journal of Applied Economics and Finance*, 10(1), 67-80.
- Oluwatolani, O., Joshua, A., & Philip, A. (2011). The impact of information technology in Nigeria's banking industry. *Journal of Computer Science and Engineering*, 7(2), 63–67.
- Onuegbu, C., Nwachukwu, E., & Akpan, A. (2025). Evaluation of Nigerian cashless payment policy and its impact on economic growth. *Journal of Financial Innovation*, 18(1), 13-29.
- Owolabi, S., & Fatoki, T. (2023). *Cashless Policy and Bank Profitability in Nigeria*. *International Journal of Banking Economics*, 8(1), 34-49.
- Punch Newspaper (2023). *Cashless Transactions Hit ₦611.06tn*.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Scholtens, B., & van Wensveen, D. (2003). The theory of financial intermediation: An essay on what it does (not) explain. *SOM Research Reports*, 1-29.
- Seriki Akinadewo, B., et al. (2024). Cashless policy and forensic accounting practice in Nigeria. *African Journal of Forensic Accounting*, 6(2), 100-115.
- Udoinyang, E., Essien, J., & Udoh, F. (2024). Cashless policy implementation and economic transparency in Akwa Ibom State. *Nigerian Journal of Policy and Administration*, 12(2), 79–93.
- Vimal Raj, R., Prathap, S., & Kannan, S. (2023). Factors influencing adoption of cashless transactions: A unified view. *South Asian Journal of Management*, 30(1), 112-126. <https://doi.org/10.1108/SAJM-11-2022-0071>
- Yusuf, A., & Bala, I. (2021). Service quality and user satisfaction in Nigerian electronic banking. *International Journal of Business and*