



**THE IMPACT OF NIGERIA’S CASHLESS POLICY ON
BANKING SECTOR TRANSFORMATION AND ECONOMIC DEVELOPMENT**

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Abstract

This study investigates the impact of the Central Bank of Nigeria’s cashless policy on the development of the banking sector, with particular emphasis on transaction volumes and costs, financial inclusion, reduction of financial crimes, and customer satisfaction. Drawing on survey data from 200 banking customers across Nigeria and employing regression analysis, the findings reveal that the cashless policy has significantly increased the volume of digital transactions while reducing costs, thereby improving efficiency. It has also broadened access to financial services, particularly for previously underserved populations, and contributed to enhanced trust and inclusion in the formal financial system. Furthermore, the adoption of digital transactions has deterred traditional cash-related crimes by enhancing traceability, although risks of cyber fraud remain. Importantly, the study finds that customer satisfaction and service delivery have improved as banks adapted to digital reforms, reflecting progress toward a more responsive and efficient banking system. The results underscore the need for complementary investments in digital infrastructure, cybersecurity frameworks, and financial literacy programs to ensure the sustainability of cashless reforms and their inclusive contribution to Nigeria’s economic development.

Keywords: *Cashless Policy, Banking Sector, Financial Inclusion, Digital Transactions, Customer Satisfaction, Nigeria.*

JEL Codes: *E42, G21, O33, O55.*

Introduction

The Nigerian banking sector has undergone profound structural changes over the past two decades, largely driven by the growing adoption of digital technology and reforms in financial regulation. Among these reforms, the introduction of the Central Bank of Nigeria's (CBN) cashless policy in 2012 has been one of the most transformative, as it sought to limit excessive reliance on physical cash and promote electronic payment systems. The overarching rationale behind the policy was to improve monetary efficiency, expand financial inclusion, reduce the risks of financial crimes, and enhance the resilience of the financial system (Oladipo & Adegbite, 2021). In an economy where cash transactions had historically dominated, the policy represented a paradigm shift towards modernization and digitization of banking operations, aligning Nigeria with global trends in financial innovation (Okoye & Akenbor, 2020).

Despite its ambitious goals, the transition from a cash-driven to a digitally oriented economy has not been without challenges. Nigeria's infrastructural deficits, digital literacy gaps, and socio-economic inequalities have shaped the pace and effectiveness of policy implementation. While the CBN has pursued several interventions to strengthen digital banking, including the Nigeria Payment System Vision (NPSV 2020) and regulatory frameworks for fintech partnerships, the uneven adoption of electronic payments has raised questions about the policy's true impact on the banking sector (Adeleye et al., 2023). Therefore, this study critically examines the implications of the cashless policy for the development of the Nigerian banking sector, focusing on transaction costs and volumes, financial inclusion, financial crime reduction, and customer service delivery.

The first objective of this study is to examine the effect of the cashless policy on transaction volumes and transaction costs in Nigeria's banking sector. Research indicates that cashless systems have the potential to reduce operational costs for banks by minimizing cash-handling expenses while simultaneously increasing the volume of electronic transactions (Ajayi & Soyibo, 2022). However, transaction charges and infrastructural bottlenecks, such as poor internet connectivity, have at times limited the anticipated efficiency gains (Onyeka & Nwankwo, 2021). Understanding this relationship is critical because transaction efficiency is directly linked to the sustainability and competitiveness of Nigeria's banking sector in an increasingly digitized financial landscape.

The second objective is to analyze the influence of the cashless policy on financial inclusion in Nigeria. Financial inclusion remains a pressing challenge, with millions of Nigerians, particularly those in rural areas, excluded from formal banking services. While the cashless

policy was intended to expand inclusion by promoting mobile and electronic payments, evidence suggests that socio-economic disparities, infrastructural deficits, and digital illiteracy have limited its impact (Nwankwo & Akinola, 2022). Yet, recent innovations such as mobile money services and agent banking have shown promise in bridging gaps between the formal banking sector and unbanked populations (Eze & Okonkwo, 2024). Assessing the policy's role in this regard is essential for evaluating its broader developmental outcomes.

The third objective is to evaluate the impact of the cashless policy on the reduction of financial crimes within the banking sector. Cash transactions are often associated with opacity, tax evasion, and money laundering. The CBN's policy aimed to address these vulnerabilities by encouraging traceable digital transactions. Studies have shown that the increased use of digital payment channels has reduced cash-related crimes such as armed robbery and enhanced regulatory oversight over suspicious financial activities (Yakubu & Bello, 2021). Nonetheless, cybercrime has emerged as a new challenge, threatening trust and stability in the digital banking environment (Adeniran & Oloruntoba, 2023). This trade-off highlights the complexity of evaluating the policy's effectiveness in safeguarding financial integrity.

The fourth objective is to assess how the adoption of the cashless policy has affected customer satisfaction and service delivery in Nigerian banks. As banks adapt to digital service platforms, customers increasingly demand speed, convenience, and security in financial transactions. While evidence suggests that the policy has led to faster and more efficient services, persistent issues such as transaction failures, fraud risks, and hidden charges have affected customer confidence (Chukwu & Nwachukwu, 2020). Furthermore, customer experiences vary widely across demographics, with urban customers benefiting more from reliable infrastructure compared to those in rural communities (Ogunbanjo & Salami, 2022). Evaluating customer satisfaction is, therefore, crucial in determining the overall developmental impact of the cashless policy on the banking sector.

Literature Review

The shift from cash-based transactions to digital payments has been framed in the literature through multiple complementary theoretical lenses. Transaction-Cost Economics (TCE) provides a primary foundation: when transactions are costly (time, transport, risk), market participation and the scope of formal financial intermediation are constrained; digital payments can reduce these frictions and thereby expand market activity and financial intermediation (Yao et al., 2022). Building on TCE, diffusion and adoption theories (Diffusion of Innovations,

Technology Acceptance Model/UTAUT family) explain heterogeneous uptake: technologies that lower perceived effort and raise perceived usefulness spread faster, but diffusion is shaped by network externalities, interoperability and trust (Siano et al., 2020; Hilale, 2024). Institutional perspectives add a third pillar, arguing that formal rules (regulation, central-bank policy, enforcement) and informal norms (trust, social practices) jointly determine whether technical capacity converts into sustained behavioural change and inclusive outcomes (Kouladoun et al., 2022). This multi-theory framing is useful for studying Nigeria's cashless policy because the policy simultaneously alters transaction costs, creates incentives for technological adoption, and changes institutional expectations for banks, regulators and consumers.

Empirical evidence from other African contexts and cross-country studies underscores that digital payment platforms (mobile money, interoperable e-payments, agent networks) can significantly reduce transaction costs and increase market participation, especially for geographically dispersed or lower-income populations, consistent with TCE predictions (Yao et al., 2022; Brunnermeier et al., 2023). Food Policy evidence from Côte d'Ivoire and Tanzania shows commercial users of mobile money were markedly more likely to participate in distant markets, implying that traceable digital payments overcome hold-up and transport frictions (Yao et al., 2022). Complementary work highlights that interoperability and network effects matter: when platforms can transact across networks and when telecom coverage expands, fees fall and inclusion rises (Brunnermeier, Limodio & Spadavecchia, 2023). For Nigeria, these cross-regional lessons are salient because the CBN's cashless policy sought to promote digital channels (POS, ATM, web/mobile transfers) that mimic the market-opening effects observed elsewhere; however, the Nigerian context introduces specific constraints that mediate outcomes.

A growing body of Nigeria-focused empirical work evaluates the cashless policy's economic and sectoral effects. Studies using payment system data from the CBN indicate large increases in electronic transaction volumes (POS, transfer, web) since the policy's roll-out, and suggest measurable declines in the share of transactions settled in cash for urban areas (CBN reports; core policy assessments). However, the relationship between digitization and bank performance is nuanced. Several Nigerian analyses find that while electronic channels lower cash-handling costs and speed transaction processing these benefits are partially offset by investment and maintenance costs for IT systems, transaction fees, and frequent service interruptions caused by network and power constraints (Onyeka & Nwankwo, 2021; recent

empirical bank-level studies). Empirical panel studies of deposit-money banks show heterogeneous effects on profit margins and cost-to-income ratios: large banks able to amortize technology investments and offer seamless digital experiences tend to capture efficiency gains and market share, whereas smaller banks and rural branches face cost and adoption barriers (sector analyses, 2019–2024).

Financial inclusion is a central empirical focus of cashless policy evaluations. Macro and micro studies indicate that digital finance and mobile payments have driven important gains in account ownership and transactional access across sub-Saharan Africa, with notable gender and rural/urban differentials (Global Findex, World Bank; Kouladoun et al., 2022; Siano et al., 2020). In Nigeria, research shows rising uptake of mobile and agent banking in urban and peri-urban areas, but persistent exclusion for segments facing low network coverage, limited identity documentation, digital illiteracy, or low trust in electronic systems (Sustainability; Telecommunications Policy; national surveys). Studies that disaggregate outcomes find that agent banking and mobile USSD channels are particularly effective for low-value transactional inclusion when combined with telecommunications investments; yet inclusion measured by credit access, savings accumulation, or firm financing shows slower improvement, indicating that transaction access alone does not guarantee broader financial deepening (Brunnermeier et al., 2023; World Bank analyses).

Another major empirical strand examines crime, fraud and regulatory control. One stated objective of Nigeria's cashless policy was to reduce cash-related crimes (armed robberies, opaque large cash transactions that facilitate money laundering) by increasing traceability. Cross-country and Nigerian evidence suggests that moving transactions onto traceable digital rails can reduce certain cash-dependent crimes and improve audit trails for anti-money-laundering (AML) and tax enforcement (sector reports; Journal of Money Laundering Control literature). Yet the digitization trade-off is clear: as physical-cash crimes fall, digital financial systems face rising cyber-fraud, phishing, card-not-present scams and sophisticated money-laundering techniques that exploit weak controls or system interoperability gaps. Surveys and systematic reviews of financial cybercrime (including deep-learning based detection literature) document an intensification of fraud attempts worldwide since the early 2020s and emphasize that regulatory upgrades, real-time monitoring, and banks' investment in AI/ML fraud detection are necessary complements to cash reduction (Nicholls et al., 2021; cybersecurity reviews, 2020–2024). Nigeria's banking sector reports growing investments in cybersecurity

and fraud analytics, but empirical assessments indicate uneven defensive capacity across banks and agent networks, leaving residual vulnerabilities (sector studies 2020–2024).

Customer experience and service delivery form the final empirical theme. Adoption studies using TAM/UTAUT variants show that perceived ease of use, trust, social influence and network effects predict willingness to use e-payment platforms (Hilale, 2024; Siano et al., 2020). In Nigeria, surveys of bank customers indicate improved perceived convenience and speed where platforms are reliable, but continuing dissatisfaction where transaction failures, hidden fees, or agent liquidity problems occur. Empirical work linking customer satisfaction to bank choice and switching behaviour shows that banks that provide reliable, low-cost, interoperable digital channels capture deposits and transactional flows; conversely, service lapses can drive customers back to cash or to informal channels despite regulatory nudges (consumer surveys and bank performance analyses).

Hypotheses Development

Theoretically, reductions in transaction costs and increases in electronic transaction volumes are the core mechanisms through which a shift away from physical cash can improve banking efficiency. Transaction-cost economics and the literature on digital payments predict that electronic rails reduce the direct costs of cash handling (printing, security, transport) and indirect time costs for customers and firms, producing higher transaction throughput and lower per-transaction expense over time (Yao et al., 2022; Brunnermeier et al., 2023). Empirical cross-country work shows robust increases in electronic payment volumes when interoperable, low-friction platforms are introduced and when telecom coverage supports scalable usage (Yao et al., 2022; Brunnermeier et al., 2023; Kouladoum et al., 2022).

Nigeria-specific studies corroborate these mechanisms while highlighting implementation frictions. Payment system data and bank-level panel analyses report substantial growth in point-of-sale and electronic transfer volumes since the policy's rollout, and case studies show that large banks with investments in digital infrastructure capture most efficiency gains (Onyeka & Nwankwo, 2021; Oladipo & Adegbite, 2021; Ajayi & Soyibo, 2022). At the same time, evidence points to offsetting short-to-medium-term costs (IT investments, maintenance, fees) and service disruptions (power and network outages) that can blunt cost-savings for smaller institutions or in rural markets (Onyeka & Nwankwo, 2021; Onyeka et al., 2021; Adeleye et al., 2023). The theoretical expectation and the preponderance of empirical evidence support the alternative hypothesis that the cashless policy is associated with higher electronic

transaction volumes and lower net transaction costs for the banking sector (Brunnermeier et al., 2023; Adeleye et al., 2023). This leads to the formulation of the first hypothesis: *H1: The cashless policy has not significantly reduced transaction volumes and costs in Nigerian banks.* From a theoretical perspective, digital payment reforms lower the access cost to basic financial services and can create market access for geographically dispersed and low-value users, particularly when combined with agent networks and mobile channels; diffusion and adoption frameworks predict faster uptake where perceived usefulness and ease of use are high and network effects are strong (Siano et al., 2020; Kouladoum et al., 2022). Cross-national evidence and World Bank Global Findex data indicate that mobile and electronic payment systems are associated with rises in account ownership and transaction access though deeper credit and savings inclusion may lag (World Bank, 2022; Yao et al., 2022; Brunnermeier et al., 2023).

Empirical work in Nigeria confirms partial but meaningful gains in transactional inclusion. Studies document increased use of mobile and agent banking in many urban and peri-urban communities and note that simplified digital channels have lowered barriers to opening accounts and transacting (Siano et al., 2020; Eze & Okonkwo, 2024; Nwankwo & Akinola, 2022). However, the literature also emphasizes heterogeneity: rural areas, low literate groups, and those with limited identity documentation remain less served unless telecommunication coverage, agent liquidity, and tailored financial education interventions are provided (Kouladoum et al., 2022; Eze & Okonkwo, 2024; World Bank, 2022). Thus, while inclusion measured by account ownership and transactional access has improved in many segments, the depth and quality of inclusion (credit, savings behavior, use of diversified financial services) show more mixed results. The preponderant evidence therefore supports the alternative hypothesis that the policy has significantly advanced transactional financial inclusion, albeit unevenly across regions and socio-economic groups (Nwankwo & Akinola, 2022; Brunnermeier et al., 2023; World Bank, 2022). Thus, the paper tests the second null, stated as: *H2: The cashless policy has not significantly enhanced financial inclusion in Nigeria.*

The rationale for an effect on financial crime is clear in theory: traceable digital transactions increase transparency, improve audit trails, and strengthen the capacity of regulators and banks to detect suspicious flows, which should reduce crimes that depend on opaque cash channels (Yakubu & Bello, 2021; Brunnermeier et al., 2023). At the same time, criminology and cybersecurity literatures emphasize displacement effects: as cash opportunities shrink, criminals adapt to exploit digital vulnerabilities, producing a complementary increase in cyber-

fraud, phishing, and sophisticated laundering techniques that exploit weak controls (Nicholls et al., 2021; Adeniran & Oloruntoba, 2023).

Empirical Nigerian evidence fits this dual pattern. National and bank-level studies show declines in some categories of cash-dependent crime and an improvement in transaction traceability useful for anti-money-laundering enforcement (Yakubu & Bello, 2021; Central Bank of Nigeria policy reports). Concurrently, reports and peer-reviewed analyses document growing incidence of digital fraud and cyber attacks targeting both banks and retail customers, with heterogeneous investment in defensive capabilities across financial institutions (Nicholls et al., 2021; Adeniran & Oloruntoba, 2023; sector reviews 2020–2024). Research therefore supports a nuanced alternative hypothesis: the cashless policy has contributed to reducing physical-cash crimes and improving traceability, but these gains are accompanied by heightened cyber risks that require complementary regulatory and technological mitigation (Kouladoun et al., 2022; World Bank, 2022). Therefore, the third null is provided as: *H3: The cashless policy has not significantly contributed to a reduction in financial crimes within the banking sector.*

Theoretically, improvements in service delivery and customer satisfaction follow when digital channels provide faster, more convenient, and lower-friction access to banking services. Technology acceptance and service quality models predict that perceived usefulness, trust, and operational reliability drive satisfaction and continued use (Siano et al., 2020; Hilale, 2024). Empirical literature from developing contexts finds that where digital platforms are reliable and provide clear cost advantages, customer satisfaction rises and users shift away from cash; conversely, persistent failures, opaque fees and security concerns undermine confidence and can reverse adoption gains (Chukwu & Nwachukwu, 2020; Ogunbanjo & Salami, 2022).

Evidence from Nigeria mirrors these propositions. Customer surveys and bank performance studies report higher satisfaction among urban users and those served by banks that have invested strongly in interoperable, reliable digital services (Ogunbanjo & Salami, 2022; Chukwu & Nwachukwu, 2020). Nonetheless, where transaction failures, hidden charges, limited agent liquidity and security incidents occur, customers report dissatisfaction and may revert to cash or informal alternatives despite regulatory nudges (Onyeka & Nwankwo, 2021; Eze & Okonkwo, 2024). Thus, the literature supports the alternative hypothesis that the cashless policy improves customer satisfaction and service delivery where infrastructural and institutional preconditions (reliable connectivity, transparent pricing, robust fraud protection) are met, while uneven service quality constrains the policy's overall effect (Eze & Okonkwo,

2024; Adeleye et al., 2023). Thus, the fourth null is: *H4: The implementation of the cashless policy has not significantly improved customer satisfaction and service delivery in Nigerian banks.*

Methodology

Research design provides the framework within which a study is conducted, guiding data collection, measurement, and analysis in a way that ensures internal consistency and validity (Kothari, 2004). For this study, a survey research design was adopted. This design is particularly appropriate because it allows researchers to gather quantitative data from a broad population segment efficiently, and it facilitates the identification of patterns, relationships, and generalizations across demographic groups (Creswell & Creswell, 2018). In the context of Nigeria's cashless policy, where the aim is to evaluate its impact on multiple dimensions of banking sector development, the survey design provides a robust means of capturing diverse customer perceptions and behaviors.

The choice of a survey approach is further justified by its suitability for studies that assess attitudes, perceptions, and behavioral responses to policy interventions (Bryman, 2016). Moreover, surveys support the use of inferential statistical techniques such as regression analysis, which are crucial in testing the hypothesized relationships between policy adoption and outcomes such as transaction efficiency, financial inclusion, fraud reduction, and customer satisfaction (Cameron & Trivedi, 2015). This methodological approach is consistent with previous empirical studies on digital finance and financial inclusion, which have similarly employed survey methods to evaluate user experiences and policy impacts (Ozili, 2020; Adedoyin et al., 2022).

The target population for this study comprises all banking customers in Nigeria who directly engage in financial transactions and are affected by the cashless policy. This includes individuals and businesses making deposits, withdrawals, or utilizing electronic payment systems. The Nigerian banking landscape reflects significant heterogeneity in terms of customer demographics, economic activities, and geographic distribution, which makes this population ideal for investigating the inclusive effects of the cashless policy.

Given the impossibility of covering the entire population, random sampling was employed to ensure representativeness and minimize sampling bias. A sample size of 200 respondents was determined as sufficient for robust statistical analysis, balancing generalizability with resource feasibility. The adequacy of this sample aligns with methodological recommendations that

emphasize the importance of power and effect size considerations in behavioral and policy research (Hair et al., 2021).

Data collection was conducted using structured questionnaires, distributed both physically and electronically to maximize accessibility across diverse demographics. The questionnaire consisted of closed-ended and Likert-scale items, allowing for quantification of attitudes and perceptions while ensuring comparability across respondents. Structured instruments were chosen because they minimize interpretation bias and provide standardized responses amenable to statistical analysis (Taherdoost, 2016).

To enhance validity and reliability, the questionnaire was reviewed by academic experts in banking and digital finance. A pilot study involving 20 participants was also conducted to refine clarity, eliminate ambiguous items, and ensure alignment with research objectives. This practice aligns with recommendations in instrument development literature emphasizing pre-testing as a strategy for construct validity (Bolarinwa, 2015). Cronbach's alpha was applied during the pilot phase to test internal consistency, and modifications were made where reliability scores fell below the generally accepted threshold of 0.70 (Taber, 2018).

The data analysis employed a two-stage strategy. First, descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize demographic characteristics and provide insights into response distributions. Second, inferential statistics in the form of regression analysis were used to test the research hypotheses. Regression was selected due to its strength in establishing predictive relationships and determining the magnitude of the impact of independent variables on dependent outcomes (Wooldridge, 2016). This method has been widely applied in similar financial sector studies assessing the adoption and impact of financial innovations (Kumar et al., 2022; Aliero & Obidike, 2023).

Results

Table 1 shows the demographic and professional information of the respondents. The demographic profile of respondents highlights an age distribution skewed toward economically active groups, with the largest proportion (32%) falling between 35 and 44 years, followed by those between 25 and 34 years (21%). This pattern suggests that most respondents belong to the labor force age group, where engagement with financial systems and digital innovations tends to be higher. Similar findings have been documented in Nigeria and other developing economies, where adoption of cashless services is strongly tied to the concentration of

individuals within productive age cohorts (Okoye et al., 2021; Alhassan & Sakara, 2022). The relatively small percentage of respondents under 18 reflects regulatory restrictions on account ownership and digital banking, reinforcing the idea that cashless adoption is primarily an adult-driven phenomenon.

Gender distribution shows a nearly balanced representation, with 51.5% male and 48.5% female respondents. This balance provides an equitable perspective on attitudes toward the cashless policy, unlike earlier financial inclusion surveys which often revealed gendered disparities (Demirgüç-Kunt et al., 2022). Recent evidence highlights how digital finance has started narrowing gender gaps in access to formal banking, particularly in Sub-Saharan Africa (Ozili, 2023). Such balance in gender representation may enhance the robustness of conclusions, as it reflects inclusivity in both banking participation and digital finance adoption. Education levels demonstrate that 34% of respondents held a bachelor's degree, while 22% reported high school as their highest qualification. This distribution suggests a strong influence of education on the ability to adapt to cashless systems. Several studies confirm that financial literacy and digital literacy, often linked to education attainment, are central to the uptake of technology-driven banking (Ejemeyovwi & Osabuohien, 2020; Asongu & Nwachukwu, 2021). Thus, the dominance of educated respondents may have positively shaped their capacity to engage with the cashless policy and perceive its benefits.

Occupational status further underlines the diversity of the sample, with 39% employed full-time, 20.5% self-employed, and 14.5% students. This spread reflects the multidimensional demand for digital finance among salaried workers, entrepreneurs, and younger demographics. Literature suggests that occupational categories strongly mediate engagement with banking services; salaried workers often prefer structured accounts for salaries and bills, while self-employed individuals value flexibility and transaction speed offered by digital payments (Nguyen et al., 2021). The presence of students (14.5%) is particularly notable, as this group often drives early adoption of fintech solutions (Boateng, 2022).

The structure of bank accounts reveals that savings accounts were most common (31%), followed by current accounts (24.5%). However, 21% of respondents reported holding no account at all, underscoring the persistence of financial exclusion despite the rollout of cashless policies. Studies emphasize that while mobile money and agency banking have expanded outreach, systemic barriers like poor infrastructure and affordability constraints still exclude significant populations (Klapper et al., 2022; Adegbite & Machethe, 2023). This underscores the need to consider account ownership dynamics in analyzing financial inclusion outcomes.

The duration of banking relationships shows that 28.5% had remained with their banks for over 10 years, reflecting a significant level of trust and institutional loyalty. At the same time, 19.5% were relatively new customers with less than one year of experience, suggesting that the cashless policy may be attracting new entrants into the system. Such mixed tenure highlights both stability and dynamism within the banking population, supporting the idea that digital reforms can simultaneously deepen loyalty and expand outreach (Adeleye et al., 2022).

Finally, respondents' experiences with the cashless policy reveal a spread across positive and negative perceptions: 45% reported positive experiences (very or somewhat positive), while 36% expressed negative experiences. This split indicates that while the policy has achieved some degree of acceptance, it also faces skepticism rooted in service delivery challenges, system failures, and costs. This aligns with prior findings that digital finance reforms in Nigeria generate both enthusiasm and frustration, depending on user experience with infrastructure reliability and customer service (Ifeanyi et al., 2021; Ozili, 2022).

Table 1: Demographic and Professional Information of Respondents

Variable	Category	Frequency	Percent
Age	Under 18	9	4.5%
	18–24	34	17.0%
	25–34	42	21.0%
	35–44	64	32.0%
	45–54	29	14.5%
	55 and above	22	11.0%
Total		200	100.0%
Gender	Male	103	51.5%
	Female	97	48.5%
Total		200	100.0%
Education Level	No formal education	19	9.5%
	High school	44	22.0%
	Some college	39	19.5%
	Bachelor's degree	68	34.0%
	Graduate degree	22	11.0%
Total		200	100.0%
Occupation	Student	29	14.5%
	Employed (full-time)	78	39.0%
	Employed (part-time)	21	10.5%

Variable	Category	Frequency	Percent
	Self-employed	41	20.5%
	Unemployed	18	9.0%
	Retired	13	6.5%
Total		200	100.0%
Type of Bank Account	Savings Account	62	31.0%
	Current Account	49	24.5%
	Fixed Deposit Account	19	9.5%
	Joint Account	28	14.0%
	None	42	21.0%
Total		200	100.0%
Duration with Current Bank	Less than 1 year	39	19.5%
	1–3 years	32	16.0%
	4–7 years	33	16.5%
	8–10 years	31	15.5%
	More than 10 years	57	28.5%
Total		200	100.0%
Experience with Cashless Policy	Very Positive	39	19.5%
	Somewhat Positive	51	25.5%
	Neutral	38	19.0%
	Somewhat Negative	42	21.0%
	Very Negative	30	15.0%
Total		200	100.0%

Source: Field Survey (2024)

The descriptive statistics, stated in Table 2, provide a granular understanding of perceptions regarding the four thematic dimensions of the cashless policy: transaction costs and volumes, financial inclusion, reduction in financial crimes, and customer satisfaction. With mean values clustered around 3.5–3.8 on a 5-point scale, the results suggest moderately positive perceptions across all domains. This reflects a cautious optimism among respondents, consistent with studies showing incremental but uneven progress of cashless systems in Nigeria (Ejemeyovwi & Osabuohien, 2020).

In terms of transaction volumes and costs, respondents largely agreed that digital transactions had increased (mean = 3.65) and financial management had become easier (mean = 3.76). This

resonates with the efficiency hypothesis, which posits that technological innovations reduce transaction frictions and expand financial intermediation (Beck et al., 2020). However, the relatively lower mean for reduction in costs (3.45) suggests that while transaction volumes are increasing, users may still perceive fees as burdensome. This echoes findings from Central Bank of Nigeria reports, which emphasize that high transaction charges remain a constraint on widespread adoption (CBN, 2022).

On financial inclusion, perceptions of improved access for unbanked groups (mean = 3.55) and enhanced trust in the banking system (mean = 3.55) highlight the policy's potential to deepen financial penetration. Trust is a critical mediator in digital finance adoption, and studies have shown that cashless frameworks improve trust when security and accessibility are guaranteed (Wang et al., 2021; Adegbite & Machethe, 2023). Nevertheless, the mean value for reduction of economic disparity (3.45) was comparatively lower, reflecting the reality that financial inclusion alone may not automatically translate into equitable economic opportunities.

Responses regarding financial crimes revealed relatively stronger agreement, with perceptions of greater security (mean = 3.73) and fraud prevention through monitoring features (mean = 3.71). This suggests that digital transactions are increasingly viewed as tools for mitigating risks associated with cash handling, consistent with crime-deterrence theories applied in financial criminology (Nguyen et al., 2020). However, the moderate score (3.59) for personal experiences of reduced fraud suggests that while systemic safeguards exist, individual vulnerabilities remain, particularly where cybercrime persists.

The highest mean scores were recorded in the dimension of customer satisfaction and service delivery. Respondents expressed high satisfaction with the convenience of digital banking (mean = 3.84) and proactive customer education (mean = 3.84). This aligns with service quality theory, which posits that customer experience improves when service delivery incorporates both efficiency and education (Parasuraman et al., 1988; modern updates: Ali et al., 2021). The relatively high scores in this category also reflect the competitive strategies adopted by banks to retain clients through technology-driven innovations.

Overall, the descriptive evidence suggests that while the policy is perceived positively, challenges related to affordability, infrastructure, and residual fraud concerns temper enthusiasm. These findings mirror global experiences where digitalization transforms financial systems but does not eliminate structural bottlenecks, particularly in developing economies (Demirgüç-Kunt et al., 2022; Ozili, 2023).

Table 2: Descriptive Statistics of Cashless Policy Impact

Variable	Statement	Mean	Std. Dev
Transaction Volumes and Costs	The cashless policy has significantly increased the number of digital transactions.	3.65	1.141
	Since implementation, I have noticed a reduction in transaction costs.	3.45	1.215
	The policy has made it easier to manage my finances.	3.76	1.134
	Transaction fees charged are reasonable.	3.49	1.203
	Availability of digital options has increased transaction volume.	3.65	1.143
Financial Inclusion	The policy has made financial services more accessible to previously unbanked groups.	3.55	1.191
	Digital platforms encourage more frequent use of banking services.	3.66	1.139
	The policy has improved trust in the banking system.	3.55	1.134
	The policy has reduced economic disparity.	3.45	1.158
	Mobile banking availability has enhanced financial inclusion.	3.66	1.149
Reduction in Financial Crimes	I feel more secure transacting digitally than with cash.	3.73	1.105
	Monitoring features of digital transactions help prevent fraud.	3.71	1.125
	I have experienced fewer instances of theft/fraud since the policy.	3.59	1.154
	Transaction records make it easier to track suspicious activities.	3.66	1.134
	Cashless systems have effectively deterred financial crimes.	3.57	1.161
Customer Satisfaction and Service Delivery	Customer service has improved with adoption of cashless systems.	3.82	1.114
	I am satisfied with the convenience of digital banking.	3.84	1.038

Variable	Statement	Mean	Std. Dev
	Response time for resolving digital issues is adequate.	3.72	1.155
	Banks are proactive in educating customers on digital platforms.	3.84	1.109
	The overall quality of banking services has improved.	3.79	1.094

Source: Field Survey (2024)

The regression analysis demonstrates statistically significant relationships across all four tested hypotheses, with coefficients ranging from 0.185 to 0.225 and p-values less than 0.01. This indicates that the cashless policy exerts a measurable impact on transaction volumes and costs, financial inclusion, reduction of financial crimes, and customer satisfaction. The results collectively validate the transformative potential of cashless initiatives in reshaping banking operations and consumer experiences.

For transaction volumes and costs, the coefficient of 0.197 ($R^2 = 0.093$) suggests a modest but significant effect. While the explanatory power is limited, the significance confirms that digital policy reforms are stimulating transaction activity. Similar findings were reported in empirical studies of mobile money adoption in Sub-Saharan Africa, where digitalization expanded transaction volumes even in the presence of infrastructural constraints (Asongu & Odhiambo, 2020). The modest R^2 value underscores the fact that transaction volumes are also influenced by external factors such as income levels, economic activity, and consumer trust.

Financial inclusion showed a slightly stronger relationship, with a coefficient of 0.212 ($R^2 = 0.105$). This aligns with institutional theory, which posits that formal policies, when supported by regulatory enforcement, can expand institutional reach into previously excluded populations (North, 1990; recent updates: Adeleye et al., 2022). However, the relatively low explanatory power suggests that inclusion is also shaped by structural challenges such as income inequality, education gaps, and digital literacy (Klapper et al., 2022).

Reduction in financial crimes produced a coefficient of 0.185 ($R^2 = 0.090$), indicating a statistically significant but comparatively weaker relationship. While digital records enhance monitoring and transparency, criminal adaptation through cyber-fraud remains a risk, as highlighted in recent Nigerian and global studies (Nguyen et al., 2020; Ifeanyi et al., 2021). This finding suggests that while the policy contributes to deterrence, parallel investments in cybersecurity and regulatory oversight are critical for long-term crime reduction.

The strongest relationship was observed in customer satisfaction and service delivery, with a coefficient of 0.225 ($R^2 = 0.107$). This implies that consumers are increasingly valuing the convenience and efficiency associated with digital banking. The significance of this relationship resonates with service quality frameworks that emphasize the centrality of customer perceptions in sustaining financial innovations (Ali et al., 2021; Wang et al., 2021). Satisfaction-driven adoption, in turn, enhances sustainability of the policy by encouraging repeat use and loyalty.

Taken together, the regression results confirm that the cashless policy is delivering multidimensional benefits, albeit with varying intensity across different domains. The findings contribute to ongoing debates on the efficacy of digital financial reforms in Africa, where progress is evident but uneven (Demirgüç-Kunt et al., 2022; Ozili, 2023).

Table 3: Regression Results of Hypotheses Testing

Hypothesis	Dependent Variable	Coefficient	Std. Error	t	Sig.	R ²	F-Stat	Sig.
H1	Transaction Volumes and Costs	0.197	0.045	4.378	0.000	0.093	19.150	0.000
H2	Financial Inclusion	0.212	0.047	4.511	0.000	0.105	20.360	0.000
H3	Reduction in Financial Crimes	0.185	0.043	4.302	0.000	0.090	18.503	0.000
H4	Customer Satisfaction and Service Delivery	0.225	0.049	4.592	0.000	0.107	21.082	0.000

Source: Author (2024)

Hypotheses Evaluation

The findings from the regression analysis provide strong evidence to reject all four null hypotheses, indicating that the cashless policy has delivered measurable benefits across key dimensions of Nigeria's banking sector. For transaction volumes and costs, the results show that the policy significantly increases digital transactions while lowering frictions, aligning with transaction-cost economics and technology-acceptance theory. This outcome is consistent with prior studies showing that electronic payment systems enhance efficiency and expand usage, although the modest explanatory power highlights the role of complementary factors such as infrastructure and fee structures.

The analysis also confirms that the cashless policy significantly advances financial inclusion by improving accessibility and encouraging wider use of banking services. This finding echoes institutional and diffusion theories, as well as global evidence that digital platforms reduce barriers to formal finance. However, inclusion gains appear strongest in access and usage rather than deeper dimensions like credit or savings. This nuance is consistent with recent Nigerian and African studies, which caution that without supportive interventions, such as financial literacy programs and product innovation, digital inclusion may remain shallow.

In terms of financial crime, the results suggest that the cashless framework contributes to reducing certain forms of cash-based fraud and theft, reflecting the deterrent effect of digital traceability. Yet, the modest coefficient and explanatory power indicate that while physical crime risks may decline, digital fraud and cybercrime remain significant threats. This duality mirrors the global evidence that cashless policies both enhance monitoring and create new vulnerabilities. Consequently, sustained investment in cybersecurity and fraud prevention is essential to consolidate crime-reduction benefits.

Finally, the strongest effect emerges in customer satisfaction and service delivery, where the policy has substantially improved convenience, response times, and overall service quality. This outcome accords with service-quality and consumer-behaviour theory, showing that digital banking adoption can foster higher customer trust and loyalty when systems are reliable. Yet satisfaction is uneven, with rural and less digitally literate users still facing constraints. Taken together, the results show that Nigeria's cashless policy has produced positive but partial progress across efficiency, inclusion, security, and satisfaction, underscoring the need for complementary reforms to maximize its long-term impact.

Policy Implications

The findings of this study carry several policy implications for the Nigerian financial system and broader economy. First, the evidence that cashless reforms significantly increase transaction volumes while reducing costs suggests the need for policies that strengthen digital payment infrastructure and expand access to low-cost platforms. Transaction cost economics posits that reducing the frictions of exchange enhances overall market efficiency, thereby fostering greater participation in formal financial systems (Williamson, 2020). In practice, this implies that regulatory authorities, such as the Central Bank of Nigeria (CBN), should prioritize interoperability among digital payment systems and incentivize banks to adopt transparent, affordable fee structures.

Second, the positive link between cashless reforms and financial inclusion highlights the policy necessity of extending digital financial services to underserved groups, particularly rural populations, women, and low-income households. Diffusion of innovation theory suggests that adoption of new technologies depends on perceived accessibility and relative advantage (Rogers, 2003; updated in financial technology studies by Ozili, 2023). To sustain inclusion gains, policies must therefore support mobile banking expansion, digital literacy programs, and targeted financial products that address the needs of the unbanked. Without such measures, inclusion may remain shallow, exacerbating inequality and leaving structural barriers unaddressed (Demirgüç-Kunt et al., 2022).

Third, the findings on crime reduction show that while digital traceability reduces cash-based fraud, risks of cybercrime and electronic fraud persist. From the perspective of risk management theory, reducing physical risks while leaving digital vulnerabilities unchecked merely shifts the locus of insecurity rather than eliminating it (Tao et al., 2022). Policy interventions should therefore focus on regulatory frameworks for cybersecurity, investment in fraud detection technologies, and stronger consumer protection mechanisms. Furthermore, partnerships between financial institutions and law enforcement can help track and deter complex financial crimes, as already practiced in advanced economies (Pazarbasioglu et al., 2020).

Finally, the strong effect of cashless reforms on customer satisfaction and service delivery underscores the importance of continuous service innovation in the Nigerian banking sector. According to service-dominant logic in economics and marketing, value is co-created when firms actively engage customers in designing efficient and reliable services (Vargo & Lusch, 2021). Thus, policies that encourage competition among banks in the digital space, while also setting minimum service quality standards, are essential. Additionally, consumer education and grievance-redress mechanisms must be enhanced to maintain trust and satisfaction, particularly among digitally vulnerable groups.

Conclusion

This study examined the impact of the CBN's cashless policy on the development of the banking sector, focusing on transaction volumes and costs, financial inclusion, reduction in financial crimes, and customer satisfaction. The results indicate that the cashless policy has yielded significant progress across these domains, aligning with both theoretical expectations and empirical evidence. By lowering transaction costs and increasing transaction volumes, the

policy has fostered greater efficiency within the banking system, consistent with transaction cost economics, which emphasizes that reduced frictions in financial exchanges promote overall market activity (Yakubu & Abubakar, 2023).

Moreover, the findings demonstrate that financial inclusion has been enhanced through the expansion of mobile and electronic banking services, particularly for previously underserved populations. This confirms earlier assertions that digital financial innovations can bridge structural gaps in access to financial services when supported by enabling infrastructure and inclusive regulatory frameworks (Ozili, 2023; Demirgüç-Kunt et al., 2022). The evidence of reduced financial crimes underlines the role of digital traceability and transaction monitoring in mitigating fraudulent and cash-based crimes, although it also raises concerns about the growing risks of cyber-related financial fraud (Tao et al., 2022). Additionally, improvements in customer satisfaction and service delivery highlight the extent to which banks have adapted to digital reforms, offering more efficient, accessible, and user-centered financial services.

Building on these findings, several recommendations emerge. First, policymakers should deepen investment in digital infrastructure to ensure that the benefits of cashless banking are equitably distributed. Expanding mobile network coverage, improving internet penetration, and ensuring stable electricity supply are critical to bridging rural-urban disparities and sustaining financial inclusion gains (Anyanwu et al., 2023). Second, regulatory bodies must strengthen cybersecurity frameworks to address the evolving risks associated with electronic fraud. This requires coordinated efforts between banks, fintech companies, and law enforcement agencies, supported by investments in artificial intelligence-driven fraud detection systems (Arner et al., 2020; Pazarbasioglu et al., 2020).

Third, banks and regulatory agencies should adopt comprehensive financial literacy programs tailored to low-income households, women, and older citizens, whose adoption of cashless services remains slower. Such interventions would address digital divides and ensure inclusive growth (Adelopo et al., 2022). Fourth, service quality should remain a policy priority, with regulators setting clear benchmarks for digital banking responsiveness, consumer protection, and grievance redress mechanisms. Ensuring trust and reliability is vital for sustaining long-term customer satisfaction and loyalty (Vargo & Lusch, 2021; Yakubu & Abubakar, 2023).

In conclusion, while the cashless policy has significantly modernized Nigeria's banking landscape and delivered notable benefits, its sustainability depends on complementary reforms in infrastructure, financial education, and regulatory oversight.

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