



## Adoption of Electronic Banking and its Impact on Central Bank of Nigeria Cashless Policy in Nigeria [2012-2018]

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### ABSTRACT

The study investigated the practice of electronic banking and the influence of CBN cashless policy on selected five banks in Imo State for the period of 2012 to 2018. Data were collected primarily using a structured questionnaire, which was administered to the selected banks. To test the study's hypothesis, data were analyzed using the Ordinary Least Squares (OLS) multiple regression methods, which were supported by SPSS statistical software. The results show that electronic banking has been widely adopted; 83.8% of respondents frequently made cashless transactions, and 87.5% admitted that electronic banking was very convenient. In addition, 62.5% reported that after electronic banking entered the market, the amount of cash in circulation decreased. The impact of electronic banking continues to reshape cashless transactions by drastically reducing dependence on cash usage and enhancing the user experience. The study, then, concluded that the cashless policy of the CBN is a positive influence on the growing rate of electronic banking and maintains the future of commercial banking in Nigeria as its future growth driver, especially that of new-generation banks.

Keywords: Electronic banking, Cashless policy, Central bank of Nigeria, Internet banking, Commercial banks.

### 1. Introduction

The 21st-century banking sector is characterized by a dynamic and competitive environment in which information and communication are critical to the complexity of the banking industry (Laudon & Laudon, 1991). Banks depend on access to information in a bid to acquire an edge over their competitors, locally and internationally. Indeed, the financial prosperity of progressive banks could be linked to their implementation of modern information systems. Electronic banking is a key part of the modern financial system which uses automated processes and electronic devices including computers, telephones, internet platforms, card payment systems, and point-of-sale (POS) terminals (Technical Committee on E-Banking, CBN, 2003). To limit cash circulation, minimize the costs of producing and moving cash, and promote electronic payments and commerce, the Central Bank of Nigeria implemented electronic banking. The electronic banking initiative was part of the strategy of the CBN to align the Nigerian economy to meet global competitiveness in the financial system. The Cashless Policy developed by the banker's committee, which includes CBN, Nigeria Deposit Insurance Corporation (NDIC), discount houses and 24 deposit money banks, is at the heart of this strategy. This policy encourages the transition to electronic transactions and less reliance on cash. This was the starting offer, beginning with a pilot program in Lagos on 1 January 2012 through First Bank PLC the policy specifies transaction limits of ₦500,000 for individuals and ₦3,000,000 for corporate entities with a penalty for exceeding these thresholds. The penalty regime began on April 1, 2012, with full implementation across other states as well as Port Harcourt, Kano, Abia, Anambra and the Federal Capital Territory.

In fact, the Cashless Policy is part of Vision 2020 creation of Nigeria's economy as one of the top 20 economies by 2020. A modern payment system can facilitate the growth of economy, lower banking costs and promote financial inclusion. The policy introduced under the regime of Sanusi Lamido Sanusi, it was designed to fast-track the migration to electronic payment channels, reduce cash transactions, reduce fraud and control inflation. The policy so far has proven to accelerate economic transformation more than it has faced resistance. This study is consistent with Ehekoba and Ezu (2012) who reported the challenges of Nigerian consumers in banks with 68.2% complaining about queues, 28.9% about teller services and 2.89% about distance to banks. Such findings highlight areas where service can be enhanced. CBN, however, in December 2011 at its 24th NCS national conference,

insight into automated transactions revealed 51% withdrawals through ATM, 33.6% OTC cash withdrawals, 13.6% cheques and 0.5% and 1.3% of POS and web transactions correspondingly. In fact, the introduction of ATMs has drastically reduced OTC withdrawals and shows that cashless policy, underpinned by robust information technology, can reduce cash dependency. Adewoye (2013) conducted an empirical study on the effect of mobile banking on service delivery in Nigerian commercial banks. According to the study, conducted through questionnaires, e-banking services enhanced efficiency, providing transactional convenience, time savings, rapid transaction alerts and lower costs. These advantages helped create customer satisfaction and loyalty. Adewoye therefore concludes that electronic banking services should be adopted more and improved to maintain the gains and contribute towards the economic development of the country.

1. Raise awareness about the benefits of e-banking services.
2. Foster collaboration among banks.
3. Employ skilled personnel to prevent fraudulent activities.
4. Ensure provision and maintenance of public network systems, such as telephones (Nitel), to support mobile banking services. These recommendations aim to optimize mobile banking's potential in Nigeria.

Different Test Models and Methodology have been employed by several authors in the modelling of electronic banking adoption in Nigeria. As an example, Olatokun and Igbinedion (2009) have executed the Diffusion of Innovation (DOI) theory to investigate the factors that affect ATM adoption. Their study found relative advantage, complexity, observability, compatibility, and trialability to be significant predictors of positive attitudes towards ATM card usage. In the same vein, Olorunsegun (2010) used cluster sampling to examine the impact of electronic banking of the Nigerian banking system and found that electronic banking systems, when well implemented, improves customer satisfaction and strengthens relationships. Using e-banking acceptance through VIAVIA Statistical Package for Social Science (SPSS), James (2012) found that age, education level, income, perceived benefits and ease of use, perceived risk and enjoyment has significant impact on accepting e-banking. In this regard, James (2013) established Rogers' Diffusion of Innovation theory as a framework to examine the adoption of mobile banking in Nigeria. The major drivers of adoption identified by the study were age, educational attainment, relative advantage, complexity, compatibility, observability and trialability. These results strengthen the call to tackle these determinants to encourage a more extensive acceptance of mobile banking.

Morufu and Taibat (2012) conducted a qualitative survey to assess bankers' perspectives on electronic banking in Nigeria. The findings indicated that bankers perceive electronic banking as an effective means of reducing transaction inconveniences, costs, and customer wait times. Olajide (2012) analyzed the economic implications of cashless banking in Nigeria, concluding that it offers substantial long-term economic benefits. Additionally, Egwali (2008) explored customer perceptions of security indicators (SI) on online banking platforms in Benin, Nigeria, using consumer acceptance theory, revealing that existing SI were inadequate in protecting users from phishing attacks. Research by Humphrey and Berger (1990) and Humphrey et al. (Tiwari, 2006) emphasized that mobile banking is integral to mobile commerce, enabling banks to enhance customer satisfaction, optimize costs, increase profitability, and modernize payment systems. This innovation has gained widespread adoption among banks (Thisdaylive, 2011). In a developing economy like Nigeria, where policies are continuously reviewed to assess their economic impact, electronic banking remains a vital area of study due to its direct influence on economic growth. Consequently, this study aims to:

1. To assess the impact of electronic banking on banks operational efficiency.
2. To examine the technical and operational challenges facing the adoption of electronic banking
3. Does e-banking improve bank customers' satisfaction with the banking services?

In order to address the objectives above, the following questions were answered with this research study:

1. Is there any significant impact of e-banking on banks efficient operations?
2. To what extent have technical and operational challenges affected e-banking? What are the possible remedies?
3. Does e-banking have any significant effect on customer's satisfaction?

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## 2. Materials and methods

### 2.1 Method of Data Collection

This study is descriptive in nature; therefore, it employs descriptive research method. It is appropriate for testing the hypothesis of the study and helps to answer the research questions about the adoption of electronic banking and its impact on CBN cashless policy in Nigeria, which are crucial concerns of this study. Primary data was employed and sourced from questionnaires. Secondary data was employed and sourced from textbooks, journals and newspapers. The instrument of data collection for this research work was through distributed questionnaires.

### 2.2 Population of the Study

The focus of this study is on five commercial banks located in Imo State: Diamond Bank, Access Bank, United Bank of Africa, Skye Bank, and Guarantee Trust Bank. The target population consists of 100 individuals, representing the total study population. To this research, a sample of 80

respondents was selected to ensure a comprehensive perspective on electronic banking practices within these institutions. The sample was drawn to provide a representative view from the targeted banks, based on the population of 80 individuals. The sample size was calculated using the formula outlined in Equation 1 below.

$$n = \frac{N}{1+n(e)^2} \quad 1$$

Where n = sample size N = the target population (100), e = margin of error (5%)

$$n = \frac{100}{1+100(0.05)^2} \quad 2$$

$$1 + 0.25 = 1.25$$

The instrument of data collection for this research work was through distributed questionnaires. The researchers adopted the single percentages/frequency/chi-square as a statistical tool for the analysis of data.

### **2.3 Validation of the Instrument**

The concept of validity refers to the extent to which the findings derived from data analysis accurately reflect the phenomenon being studied. It is a crucial qualitative step that involves testing the research instrument to determine its accuracy, correctness, truthfulness, meaningfulness, and appropriateness for gathering the intended data. To ensure the validity of the research instrument, a pilot study was conducted to identify any items that might lead to confusion or ambiguity in obtaining the relevant information. The problematic items were subsequently modified to enhance their clarity and effectiveness in eliciting the intended data.

### **2.4 Reliability of the Instrument**

The reliability of a research instrument pertains to its ability to produce consistent and stable data across multiple trials. For a questionnaire, reliability focuses on the uniformity of responses to its items. To ensure the questionnaire's reliability in this study, a pilot test was conducted to confirm that respondents comprehended the questions. The researcher analyzed the correlation between individual question responses and those of other questions within the questionnaire. The split-half method was employed to assess the instrument's internal consistency, using Pearson's product-moment correlation statistics to evaluate the relationship between two sets of scores. Lastly, the Spearman-Brown formula was applied to compute the overall reliability coefficient for the twenty-item questionnaire.

## **3. Results and discussion**

### **3.1 Analysis of the population of the respondents**

The distribution and response rate of questionnaires across the five banks—UBA, Access, Diamond, Skye, and GTB (Figure 1) shows a balanced representation of customers from each institution. Out of 100 questionnaires distributed evenly (20 to each bank), 80% were returned, showing a strong overall response rate. Access Bank customers had the highest return rate of 18 (22.5%), followed closely by GTB at 17 (21.2%) and Diamond customers at 16 (20%). UBA and Skye Bank had slightly lower return rates at 15 (18.7%) and 14 (17.5%) respectively. This consistent participation across different banks suggests that the data collected represents a broad spectrum of experiences with electronic banking services. The demographical representation of the respondents is seen in Figure 2. The gender distribution of the respondents shows that a majority, 56.2%, are male, while 43.7% are female, indicating a balanced representation of both genders, though with a slightly higher male participation. This slight skew toward male respondents may reflect either a higher engagement of men with banking services in the surveyed population or could be indicative of broader demographic trends within the customer base of the surveyed banks. Nonetheless, the near-equal representation suggests that the study captured diverse perspectives across gender lines. The age distribution of respondents shows that the largest group falls within the 20-25 years age range, accounting for 35% of the total, followed by 27.5% in the 25-30 years category, and 25% in the 30-35 years range. Only 12.5% of respondents are aged 40 and above. This suggests that the majority of individuals engaging with banking services in this survey are younger adults, with those under 35 years comprising 87.5% of the total. The data may reflect a trend of younger customers being more active or adaptable to modern banking technologies, such as electronic banking, compared to older customers.

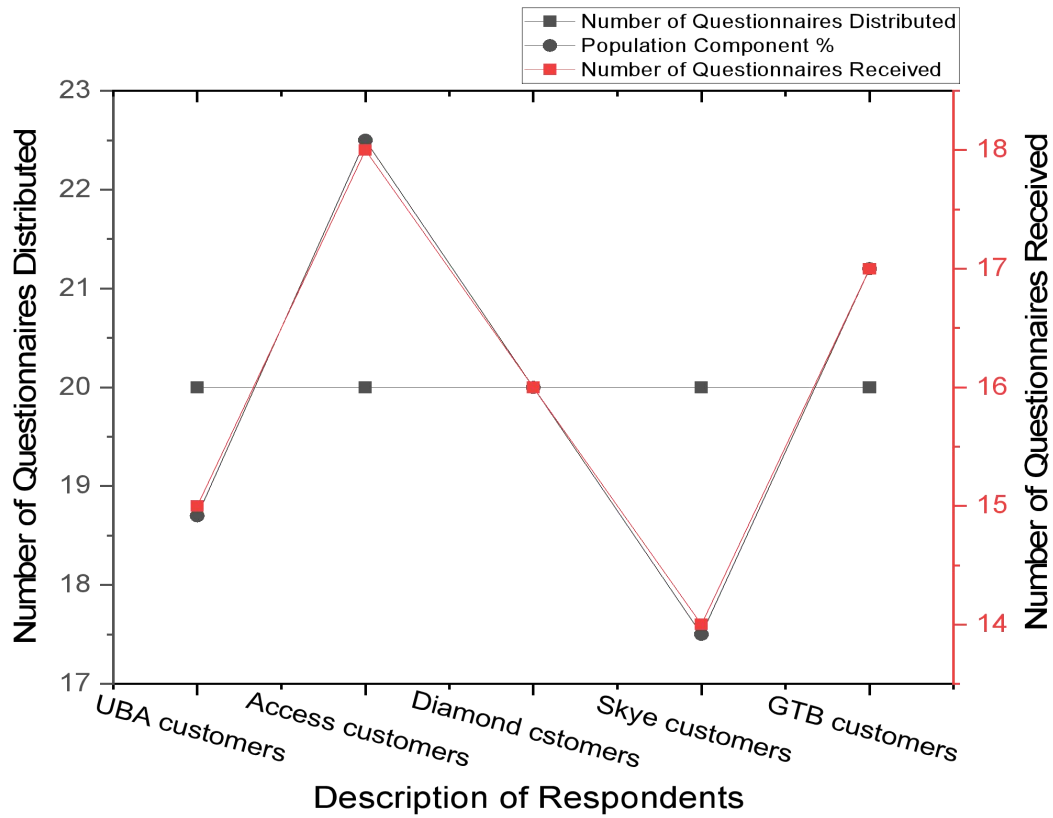


Figure 1: Project Respondent Population (Source: field survey)

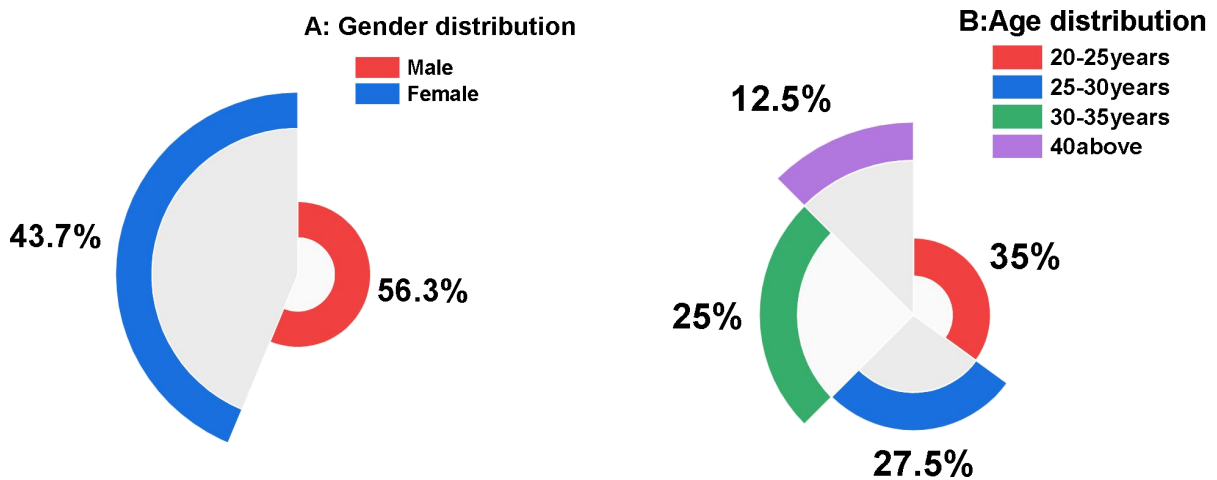


Figure 2: Demographical analysis of respondents (Source: field survey)

3.2 Analysis of Questions

The results from Table 1 indicate a high level of awareness of electronic banking products among respondents, with 93.75% acknowledging that they are familiar with these services. This overwhelming majority suggests that electronic banking has effectively penetrated the Nigerian market during the period studied (2012–2018), which is a positive indicator for the success of the CBN cashless policy. The widespread awareness highlights that the campaigns and efforts by both the government and financial institutions to promote electronic banking have reached a large segment of the population. With almost universal recognition of electronic banking products, it lays a solid foundation for transitioning from cash-based to electronic transactions. The small percentage (6.25%) of respondents unaware of electronic banking products may represent either individuals from remote areas or older demographics who might face barriers to accessing digital banking services. Addressing the needs of this minority is essential for the CBN's cashless policy to achieve complete inclusion. The disparity in awareness could suggest the need for more targeted efforts, especially in underrepresented groups,

to ensure the cashless policy is fully embraced nationwide. Overall, these findings emphasize that while significant strides have been made in fostering electronic banking, there remains room for improvement to reach full financial inclusion in Nigeria.

**Table 1: Awareness of Electronic Banking Products**

Response	Frequency	Percentage (%)
Yes	75	93.75
No	5	6.25
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey

The descriptive results in Table 2 indicate that 83.8% of respondents, use electronic or cashless transactions rather than cash transactions. The vivacious percentage shows a growing adoption of digital payment methods and reinforces the objectives of the CBN cashless policy that was introduced back in 2012. The frequent usage and high ratings of cashless systems showcase that there is an increasing degree of confidence and empowerment derived from electronic banking systems ownership in Nigeria. The widespread adoption is essential to dispel overreliance on cash, one of the major agenda of CBN's policy aimed at promoting transparency, minimizing fraud and supporting economic growth through efficient payment systems. In contrast, 10% of respondents still prefer a cash-based transaction, while 6.3% are undecided. These contrasting statistics suggest that amid the march toward cashless-ness, there remain those who still want their cash or at least are uncomfortable with the prospect of becoming fully digitized. This may relate to concerns over the accessibility of digital banking, digital literacy or a lack of trust in the safety of electronic banking. Replacing this has required the central bank to engage in some public blue-sky thinking, likely revolving around plans to further hone educational campaigns to key groups demographics, as well as improvements to the underlying infrastructures needed for pass-through electronic banking to take flight. Its impact on Nigeria's economic and financial world would be further cemented if any remaining resistance to the cashless system was removed through the promotion of digital financial inclusion, which could guarantee that no one yet excluded in the cashless gates would be left behind.

**Table 2: Regularity of Use of Cashless Transactions to Cash Transactions**

Response	Frequency	Percentage (%)
Positive	67	83.8
Negative	8	10
Undecided	5	6.3
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey

As indicated in Table 3, 62.5% of the respondents believe in the decline in the quantity of cash in circulation in Nigeria since the introduction of electronic banking in the country. That is part of the goals of the CBN cashless policy, to reduce reliance on cash and to drive electronic payment systems. Most members agreed the use of electronic banking in day-to-day transactions has increased, which had the effect of meeting the policy objective of making cash handling more cost-effective and less prone to the costs of theft or counterfeiting. The respondents' views are mixed, as 37.5% of them are of the opinion that there has not been any reduction in cash circulation, which shows that the cashless policy has not fully been achieved. These might arise from root causes like poor infrastructure in country regions, lack of faith in banking systems, or lack of Financial access to some groups of people. Overall, while the majority of respondents reported positive experiences with cashless systems, these challenges indicate that further efforts are needed to promote widespread acceptance and support for cashless systems in order for the CBN's cashless policy to reach its full potential. Measures like improved financial education, increased banking presence in underbanked areas and stronger cybersecurity protocols can further strengthen the effectiveness of this policy.

**Table 3: Reduction in the Volume of Cash in Circulation since the Inception of Electronic Banking**

Response	Frequency	Percentage (%)
Yes	50	62.5
No	30	37.5
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey

Based on the findings from Table 4, 87.5% of respondents perceive e-banking and cashless transactions to be convenient, meaning there is a high level of acceptance of e-banking services among consumers in Nigeria. This level of convenience is also central to the success of the cashless policy by CBN. Simpler electronic banking, naturally, leads to more people using cashless transactions, which allows reductions of cash-in-circulation, faster transaction time, and increased financial security in general. The convenience element is also aligned with the policy's goal of updating the economy by

creating a digital payment framework that minimizes the costs of cash management and related inefficiencies. Still, over 12.5% of respondents think that online banking is not convenient enough, which may indicate some bad Internet connection, insufficient technical knowledge, or confidence in online banking systems. Overcoming these barriers is essential if the CBN policy is to truly take root across the various segments of the population. To make sure that all eyes are on the rewards of cashless transactions, constant developments in infrastructure, user education, and cybersecurity strategies will be critical, thereby consolidating the influence of the cashless policy and boosting trust in electronic banking systems.

**Table 4: Convenience of e-banking/cashless transactions**

Response	Frequency	Percentage (%)
Yes	70	87.5
No	10	12.5
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey

As shown in Table 5, 87.5% of the respondents feel like cashless banking is more economic than traditional cash with cash bank. This massive agreement is due to the perceived financial benefits of electronic transaction use, including lower handling fees, faster transactions, and lower cash logistics costs. The cost-effectiveness of this drive can be asserted as a determining relative parameter to adoption from the CBN cashless policy point of view. As banking fees are reduced, more people and businesses are encouraged to move from cash-based transactions to electronically-based transactions, which complements the objective of money policy to reduce the amount of physical money in circulation and improve the efficiency of the financial system. Despite 12.5% of respondents still considering cashless banking not cost-effective, which could also be credited to concealed fees in electronic transactions, bank service fees, or the additional charges introduced by the technology of cashless transactions. To this end, some of the concerns need to be addressed in order to maximise the impact of the CBN's cashless policy. Transparency on fees, greater competition amongst providers, and public education about the long-term cost savings of e-banking can allay such fears. Addressing these barriers will not only help in capitalizing on cashless banking but also propel the sectors that help to promote financial inclusion and will bolster the economy.

**Table 5: Cost effectiveness of Cashless banking over cash banking**

Response	Frequency	Percentage (%)
High	70	87.5
Low	10	12.5
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey

The results in Table 6 show while 83.8% of respondents are familiar with electronic banking products, to a large degree the awareness of the population of that can be used in the electronic transactions. Such high levels of knowledge are important for the success of the CBN cashless policy since informed consumers are likely to use electronic banking facilities all layers of society and activities are affected by the cashless policy. Identifying and describing the advantages of such products, which include convenience, speed, and security, can significantly influence the transformation of users from cash to the digital native format. This overall awareness can naturally lead to higher adoption rates and thus, inherently promotes its cashless economy objectives at large. On the other hand, the 10% group that still did not have any idea of electronic banking products indicates that for the CBN's cashless policy to work, some challenges still exist to be tackled. The reason for this lack of awareness may include things like a lack of financial literacy education, access to information, or differences in digital literacy across demographic groups. This uncertainty or lack of confidence in using these products can also be reflected in the 6.3% of respondents who claimed to be undecided. Increased awareness, therefore, will not only build more confidence in electronic banking but also facilitate the success of the cashless policy of the CBN in Nigeria.

**Table 6: Awareness of Electronic Banking Products**

Response	Frequency	Percentage (%)
Positive	67	83.8
Negative	8	10
Undecided	5	6.3
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey

From the Table 7 outcomes, half of respondents are expressing the electronic payment products will add positively the GDP of the country, which means the prosperity towards economic prosperity through electronic banking is being recognized properly. This perception correlates with the objectives of the CBN cashless policy which were designed to engender economic growth via financial inclusion and efficiency in transactions. Those

who believe that e-payment products have made no impact on GDP (26.3%) and those who remain unsure (23.8%) indicate a notable skepticism on the economic benefit of electronic banking. This distrust can come from having not seen tangible benefits or having had personal experiences showing that e-payments help. To mitigate this problem, the CBN should focus on the economic impact of e-payments and how they create job opportunities, increase tax revenues, while carrying out campaigns to educate the public on the effects of electronic banking on economic performance with result-studies. By addressing negative perceptions in this manner, trust in digital banking solutions will increase, and pave the way for the acceptance and continued resilience of the cashless policy in Nigeria.

**Table 7: Has e-payment products improved the country's GDP?**

Response	Frequency	Percentage (%)
True	40	50
False	21	26.3
No Idea	19	23.8
Total	80	100

Source: field survey

As shown in Table 9, 77.5% of them agree that cashless policy has restricted them from carrying and exchanging physical cash, which is an evident shift in consumer behavior due to the use of electronic banking. This aligns with the Central Bank of Nigeria's goal to integrate a downstream cash-based society and strengthen digital payment platforms that increase processing efficiency and reduce physical cash vulnerability to theft or loss. On the other hand, 22.5% of respondents disagree, meaning that this 22.5% group of respondents may still opt for cash or not fully accept the cashless transaction model. To this end, the CBN may need to do more to educate or support those who can go either way in order to assuage their fears over, say, an increased risk of cyber-crime but also educate them on the benefits of digital banking; lower cost of cash handling, convenience and security, there are numerous advantages to mobile banking, but in some cases cash is king.

**Table 8: Has the introduction of E-payment increased/improved economic activities?**

Response	Frequency	Percentage (%)
Yes	68	85
No	10	15
Total	80	100

Source: field survey

As shown in Table 9, 77.5% of them agree that cashless policy has restricted them from carrying and exchanging physical cash, which is an evident shift in consumer behavior due to the use of electronic banking. This aligns with the Central Bank of Nigeria's goal to integrate a downstream cash-based society and strengthen digital payment platforms that increase processing efficiency and reduce physical cash vulnerability to theft or loss. On the other hand, 22.5% of respondents disagree, meaning that this 22.5% group of respondents may still opt for cash or not fully accept the cashless transaction model. To this end, the CBN may need to do more to educate or support those who can go either way in order to assuage their fears over, say, an increased risk of cyber-crime but also educate them on the benefits of digital banking; lower cost of cash handling, convenience and security, there are numerous advantages to mobile banking, but in some cases cash is king.

**Table 9: Reduction of cash carrying and transacting ability due to cashless policy**

Response	Frequency	Percentage (%)
Yes	62	77.5
No	18	22.5
Total	80	100

Source: field survey

From the Table 10 it appears that 57.5% believes that cashless policy has minimized cash handling cost and suggests a good perspective about economic benefits of electronic banking. The CBN in advocating a cashless economy is not doing a strange thing as a lot of cost is related to cash (and cash management) for businesses and individuals as compared to digital payments. But 25% of respondents still believe that cash handling costs have not already declined, and 17.5% were undecided, which suggests that banks should invest more effort in making sure their clients understand what their electronic banking systems will do for them financially. Although the majority may see the possibility of savings, a significant group of potential users haven't even heard about the benefits of electronic banking, nor how to effectively make use of these services for saving costs on their most typical financial interactions.

**Table 10: Has cashless policy reduced cash handling costs?**

Response	Frequency	Percentage (%)
Yes	46	57.5
No	20	25
No Idea	14	17.5
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey

With regards to findings in Table 11, a strong majority of respondents (68.75%) believe that electronic banking has not given rise to fraud and cybercrime, which depicts a growing level of confidence in the security protocols operated in response to the advent of electronic or online banking services in Nigeria. This is a positive sign, as it indicates that consumers are cognizant of the measure's financial institutions and regulatory entities like the CBN are taking to combat fraud and ensure secure transactions. On the other hand, 31.25% of the respondents indicated that banking electronically has led to an increase in fraud, showing that the banking sector continues to battle against consumer trust issues. These differences further highlight the need for continuous education and awareness campaigns from the CBN and other financial institutions to assist in remedying these concerns and ensuring customer confidence in the advantages of an electronic method of banking, all the while ensuring that stringent security protocols are established to help mitigate the risks posed by cybercrime.

**Table 11: Has the use of electronic banking increased fraud and cybercrime?**

Response	Frequency	Percentage (%)
Yes	25	31.25
No	55	68.75
<b>Total</b>	<b>80</b>	<b>100</b>

Source: field survey

## HYPOTHESIS TESTING AND ANALYSIS

### Hypothesis Testing

The hypothesis is tested using the appropriate statistical method, which is the chi-square ( $\chi^2$ ). The formula for chi-square is  $\chi^2 = \sum(O_i - E_i)^2/E_i$

Where o = observed frequencies,  $\sum$  = summation, and E = expected frequencies

### Decision Rule

The test statistic  $X_T^2$  is compared to the critical value  $X_C^2$ . If the test statistic is greater than or equal to the critical value, the null hypothesis is rejected, and the alternative hypothesis is accepted, maintaining a significance level of 0.05.

Thus:  $X_T^2 > X_C^2 \rightarrow$  Reject the Null hypothesis.

### Statement of Hypothesis

#### Hypothesis I

HOI: Adoption of electronic banking does not have any significant effect on economic growth.

Ha: There is a significant effect of the adoption of electronic banking on economic growth.

**Table 12: Test Analysis for the Impact of Electronic Banking Adoption on Economic Growth**

Variables	O	E	O - E	(O <sub>i</sub> - E) <sup>2</sup>	X <sup>2</sup>
Yes	68	40	28	784	19.6
No	12	40	-28	784	19.6
<b>Total</b>	<b>80</b>				<b>39.2</b>

Source: Field Survey

Test statistic =  $X_T^2 = 39.2$



Degree of freedom  $Df = r-1 = 2-1 = 1$

$X^{2C} = X 2(0.05) = 3.93$  [from Tables]

Decision

The data presented shows that the computed value of 39.2 surpasses the critical value of 3.93 at a 0.05 significance level with 1 degree of freedom. This outcome leads to the rejection of the null hypothesis and the acceptance of the alternative hypothesis. Therefore, it can be inferred that electronic banking adoption has a significant influence on economic growth in Nigeria.

Therefore:

Reject  $\rightarrow H_0 \rightarrow$  null hypothesis; stating electronic banking has no significant effect on economic growth.

Hypothesis II

H02: The CBN cashless policy does not have any significant effect on cash reduction in Nigeria.

Ha: The CBN cashless policy has a significant effect on cash volume reduction in Nigeria.

**Table 13: Test Analysis for Economic Growth and Cash Volume Reduction in Nigeria"**

Variables	O	E	O - E	(O - E) <sup>2</sup>	X <sup>2</sup>
Yes	62	40	22	484	12.1
No	18	40	-22	484	12.1
Total	80				24.2

Source: Field Survey

Test statistic =  $X^{2T} = 24.2$

Degree of freedom  $df = r-1 = 2-1 = 1$

$X^2 = 3.93$  (from tables)

Decision

The table reveals that the calculated chi-square value of 24.2 is greater than the critical value of 3.93 at a 0.05 significance level with 1 degree of freedom. This outcome supports rejecting the null hypothesis and accepting the alternative hypothesis. Accordingly, it can be concluded that the cashless policy has a significant effect on reducing cash usage in Nigeria.

Therefore:

Reject  $\rightarrow H_0 \rightarrow$  Null hypothesis

Hypothesis III

H03: Electronic banking does not have any significant effect on the prevention and control of fraud.

Ha: Electronic banking has a significant effect on the prevention and control of fraud.

**Table 14: Test Analysis for the Impact of Cashless Policy on Cash Reduction and Electronic Banking**

Variables	O	E	O - E	(O - E) <sup>2</sup>	X <sup>2</sup>
Yes	25	40	-15	225	5.6
No	55	40	15	225	5.6
Total	80				11.2

Source: Field survey

Test statistic =  $X^{2T} = 11.2$

Degree of freedom  $Df = r-1 = 2-1 = 1$

$X^{2C} = X2(0.05) = 3.93$  [from Tables]

Decision

The table shows that the calculated chi-square value of 11.2 exceeds the critical value of 3.93 at a 0.05 significance level with 1 degree of freedom. This result indicates that the null hypothesis should be rejected, supporting the acceptance of the alternative hypothesis. Therefore, it can be concluded that electronic banking significantly contributes to the prevention and control of fraud.

Therefore:

Reject  $\rightarrow$   $H_0 \rightarrow$  Null hypothesis; stating electronic banking has no significant effect on the prevention and control of fraud.

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#### 4. Conclusion

It could be deduced from our research questions and responses and from the hypothesis tested above. The adoption of electronic banking has significantly contributed to economic growth in Nigeria and has proven effective in preventing and controlling fraud. Additionally, the CBN cashless policy has notably impacted the volume of cash in circulation. It can be concluded that electronic banking is widely embraced across Nigeria, offering substantial benefits such as reducing the reliance on physical cash, enhancing transaction convenience, and promoting ease and speed in financial dealings. This study aimed to explore the adoption of electronic banking and its influence on the implementation of the CBN cashless policy. The findings highlight that electronic banking has facilitated the transition to a cashless economy by introducing alternative transaction methods, reducing congestion in banking halls, and streamlining financial operations. Furthermore, the study revealed that recent advancements in electronic banking have played a crucial role in curbing fraud and cyber-related crimes, thereby supporting the broader objectives of the cashless policy initiative. The research showed a positive relationship between electronic banking and the prevention and control of fraud. Because of the descriptive nature of the research, questionnaires were used and distributed randomly to customers of 5 banks. It further revealed that electronic banking has contributed immensely to banks profitability, enhanced healthy competition amongst banks globally, managerial efficiency, customer satisfaction, and quality of bank management and products. Monetary and fiscal policy measures of the government also play a role in the impact of electronic banking on commercial banks in Nigeria. For any policy to be effective, the government should not make contradictory changes. They are to allow the customers to use them and have a good support system to cater for individual feedback and implement the changes. The policy should not either be too rigid or flexible. Cybercrime is one of the major problems inhibiting the smooth operation of electronic banking. But in recent times, banks have improved security through PINs, tokens, security numbers, and secured websites. The rate of fraud has greatly reduced, thereby giving customer's confidence for continued patronage of these products that make banking easy. The government further encouraged this by the implementation of cashless policy, giving rise to cash-handling costs after the daily ceiling had been exceeded. Therefore, all these made the impact of electronic banking on cashless policy effective.

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