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ELECTORAL REFORM AND THE USE OF TECHNOLOGY IN NIGERIA'S 2023 GENERAL ELECTIONS: A NATIONAL PERSPECTIVE

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Abstract

This study examines the effectiveness of electoral reforms and technological innovations in Nigeria's 2023 General Elections, with particular focus on the deployment of the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV). The study investigates how these technologies influenced electoral transparency, voter accreditation, result management, and public confidence in the electoral process. A qualitative research design was adopted using content analysis of secondary data obtained from 35 scholarly articles, official reports of the Independent National Electoral Commission (INEC), election observer reports, policy documents, and credible media publications. Data were analysed thematically to identify patterns relating to electoral credibility, technological performance, and institutional challenges. Findings reveal that BVAS significantly reduced cases of multiple voting and voter impersonation through biometric accreditation, thereby improving the integrity of the accreditation process in many polling units. However, the study also found that technical failures associated with the IReV portal, poor internet connectivity, inadequate logistical preparation, and political interference weakened the transparency of result transmission and generated public distrust in the electoral outcome. The study further reveals that despite technological improvements, institutional weaknesses and infrastructural deficits limited the overall effectiveness of the reforms. The study concludes that electoral technology can enhance democratic credibility only when supported by institutional independence, effective legal frameworks, adequate digital infrastructure, and sustained voter education. It therefore recommends improved technological preparedness, stronger electoral accountability mechanisms, and continuous reform of Nigeria's electoral institutions to enhance the credibility of future elections.

Keywords: Democracy, Elections, Electoral Integrity, Electoral Reform, and Electoral Technology.

Introduction

Elections constitute a fundamental mechanism through which democratic societies promote political participation, leadership recruitment, accountability, and the peaceful transfer of power. In democratic systems, credible elections are essential for democratic consolidation, political

legitimacy, and good governance. However, in many developing democracies, electoral processes have historically been undermined by irregularities such as electoral violence, vote buying, ballot manipulation, voter intimidation, and result falsification. These persistent challenges have intensified demands for electoral reforms aimed at strengthening electoral integrity and restoring public confidence in democratic institutions. Globally, electoral reform has increasingly been associated with the adoption of technological innovations designed to improve the transparency, efficiency, and credibility of elections. Countries such as India, Brazil, Estonia, and the United States have integrated technologies including biometric voter registration, electronic voting systems, digital voter authentication, and electronic transmission of results to reduce electoral fraud and improve electoral administration. Within Africa, electoral reforms have expanded in response to recurring electoral disputes, weak democratic institutions, and declining public trust in electoral outcomes. Countries such as Ghana, Kenya, South Africa, and Nigeria have increasingly adopted technological innovations such as biometric voter verification systems and electronic result transmission to enhance transparency and electoral credibility. Despite these reforms, concerns relating to infrastructural deficiencies, technological failures, cybersecurity risks, and political interference continue to challenge the effective implementation of electoral technology across the continent. In Nigeria, electoral administration since independence has been characterized by persistent credibility challenges, including ballot snatching, multiple voting, underage voting, voter intimidation, and manipulation of election results. These irregularities have weakened public trust in democratic institutions and hindered democratic consolidation. In response, several electoral reforms were introduced, culminating in the enactment of the Electoral Act 2022 and the deployment of the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV) during the 2023 General Elections. The 2023 General Elections represented a major test of Nigeria's institutional and technological capacity to conduct credible elections. While the introduction of BVAS and IReV improved voter accreditation and reduced some forms of electoral malpractice, the elections were also affected by technical glitches, delayed result uploads, operational inconsistencies, and political controversies that generated widespread public criticism and legal disputes. Although existing studies have examined electoral reforms and election technology in Nigeria, limited attention has been given to assessing the broader implications of these innovations for electoral credibility,

public confidence, and democratic governance after the 2023 elections. This study therefore examines the extent to which the deployment of electoral technologies contributed to reducing electoral malpractice, improving transparency, and strengthening democratic legitimacy in Nigeria's 2023 General Elections.

Literature Review

Conceptual Clarification

Concept of Election

Election is generally understood as the formal process through which citizens choose political leaders and representatives in democratic societies. Scholars such as Joseph Schumpeter and Robert Dahl view elections as instruments of political competition, participation, and legitimacy. While liberal democratic scholars emphasize elections as mechanisms for accountability and peaceful transfer of power, critical scholars argue that elections in many developing democracies are often characterized by structural inequalities, elite domination, and institutional manipulation. This contradiction is particularly evident in African states where elections frequently coexist with electoral violence, vote buying, and weak institutional frameworks (Norris, 2014; Birch, 2011). In Nigeria, elections have remained central to democratic governance since 1999, yet persistent irregularities such as ballot snatching, voter intimidation, and result manipulation continue to undermine electoral credibility. These challenges have generated increasing demands for electoral reforms and technological innovations aimed at strengthening electoral integrity.

Concept of Electoral Reform

Electoral reform refers to institutional, legal, administrative, and technological changes introduced to improve the fairness, transparency, and credibility of electoral processes. Existing literature presents two major perspectives on electoral reform. The institutional perspective argues that reforms strengthen democratic governance by reducing fraud, improving accountability, and increasing political participation (Diamond, 2008). In contrast, critical perspectives contend that reforms alone cannot transform electoral systems where political elites continue to manipulate institutions for partisan interests. This debate is particularly relevant in Nigeria, where repeated reforms have produced mixed outcomes. Although the Electoral Act 2022 provided legal backing for electronic accreditation and result transmission, scholars disagree on whether these reforms significantly enhanced electoral credibility during the 2023

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General Elections. Some studies argue that the reforms improved voter verification and transparency, while others maintain that institutional weaknesses and political interference limited their effectiveness (Adebayo, 2023; Okeke & Ibrahim, 2024).

Concept of Electoral Technology

Electoral technology has gained increasing scholarly attention due to the global transition from manual electoral systems to technology-driven electoral administration. Electoral technology includes biometric voter registration, electronic voting systems, digital authentication devices, and electronic result transmission platforms. Proponents argue that these technologies reduce human interference, improve transparency, and strengthen electoral integrity. Countries such as India, Brazil, and Estonia are often cited as examples of successful technological integration in electoral management. However, critics caution that technology does not automatically guarantee credible elections, particularly in developing democracies characterized by weak infrastructure, poor digital literacy, and political interference. Scholars such as Norris (2014) argue that the effectiveness of electoral technology depends largely on institutional capacity, transparency, cybersecurity protection, and public trust. Recent empirical debates on Nigeria's 2023 General Elections further demonstrate these competing perspectives. The deployment of the Bimodal Voter Accreditation System (BVAS) was widely acknowledged for reducing multiple voting and voter impersonation through biometric accreditation. Several observer reports and empirical studies indicate that BVAS improved the credibility of voter accreditation compared to previous elections (INEC, 2023; Eya & Musa, 2024). Nevertheless, scholarly debates intensified over the performance of the INEC Result Viewing Portal (IReV). While INEC presented IReV as a mechanism for ensuring transparency through real-time electronic result uploads, widespread delays and technical failures generated public criticism and legal controversies. Some scholars interpret these failures as evidence of infrastructural and operational deficiencies, whereas others argue that political interference and institutional inconsistency were more responsible for undermining public confidence in the process. Consequently, the literature reveals no consensus regarding the overall effectiveness of electoral technology in Nigeria's 2023 elections.

Concept of Electoral Integrity

Electoral integrity is closely connected to debates on electoral reform and technology. Electoral integrity refers to the extent to which elections conform to democratic principles, legal standards, transparency, inclusiveness, and fairness throughout the electoral cycle. According to Pippa Norris, electoral integrity involves adherence to internationally accepted democratic standards in voter registration, accreditation, voting, collation, and declaration of results. Existing studies suggest that electoral integrity depends not only on technological innovation but also on institutional independence, political neutrality, rule of law, and effective electoral administration. In many developing democracies, including Nigeria, electoral integrity continues to be threatened by vote buying, electoral violence, state interference, and weak enforcement of electoral laws. Although BVAS and IReV were introduced to improve transparency and accountability during the 2023 elections, the controversies surrounding delayed result uploads and technical glitches exposed the limitations of technology-driven reforms in contexts characterized by institutional fragility.

Concept of Democracy

Democracy, as a system of government based on popular participation and political representation, depends heavily on credible elections and strong institutions. Democratic theorists such as Abraham Lincoln and Robert Dahl emphasize participation, accountability, political competition, and equality as central elements of democratic governance. However, contemporary scholarship increasingly argues that procedural elections alone are insufficient indicators of democratic consolidation. Instead, democratic sustainability depends on the credibility of institutions, rule of law, electoral transparency, and citizens' trust in governance structures. In Nigeria, democratic consolidation has remained constrained by electoral malpractice, corruption, political violence, and institutional weaknesses despite continuous electoral reforms since 1999. The introduction of BVAS and IReV during the 2023 General Elections therefore represented both a technological and institutional attempt to improve democratic legitimacy. Nevertheless, recent empirical literature demonstrates that technology alone cannot resolve deeper structural and political challenges affecting electoral governance in Nigeria.

Electoral Reform in Nigeria

Electoral reform in Nigeria refers to a continuous process of legal, institutional, administrative, and technological changes aimed at improving the credibility, transparency, and fairness of elections. While much of the literature agrees that reforms are necessary due to persistent challenges such as electoral violence, vote buying, ballot snatching, multiple voting, voter intimidation, and result manipulation, there remains a clear divergence in scholarly interpretations of their effectiveness. Reform-optimistic scholars argue that successive amendments to electoral laws and institutional strengthening of the Independent National Electoral Commission (INEC) have gradually improved electoral administration and reduced certain forms of malpractice (Adebayo, 2023; Eya & Musa, 2024). In contrast, critical perspectives contend that these reforms are frequently constrained by weak enforcement mechanisms, entrenched political interests, and structural governance challenges, thereby limiting their overall impact on electoral integrity. Since Nigeria's return to democratic rule in 1999, electoral reforms have been implemented through several legal frameworks, including the Electoral Acts of 2002, 2006, 2010, and the most significant Electoral Act 2022. However, scholarly debate persists on whether these reforms have translated into meaningful improvements in electoral practice, as some studies highlight enhanced transparency and regulatory strengthening, while others emphasize persistent implementation gaps and political interference. A major dimension of these reforms has been the integration of technology into electoral administration, beginning with biometric voter registration and Permanent Voter Cards (PVCs), followed by the Smart Card Reader introduced in the 2015 General Elections, which generated mixed evaluations due to both improved voter authentication and operational challenges. This debate is further intensified in the context of the 2023 General Elections, where the deployment of the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV) has produced competing empirical findings. While some studies argue that BVAS improved voter accreditation and reduced multiple voting, others highlight device malfunctions and inconsistent performance across polling units. Similarly, although IReV is widely viewed as a transparency-enhancing innovation, its effectiveness has been questioned due to delayed result uploads and public concerns over collation transparency. These conflicting perspectives suggest that the impact of electoral technology in Nigeria remains empirically

contested and context-dependent. Ultimately, the literature indicates that while electoral reforms and technological innovations have contributed to improvements in electoral administration, they are insufficient on their own to guarantee credible elections, as structural issues such as weak institutional autonomy, inadequate infrastructure, political interference, and insecurity continue to undermine electoral outcomes.

Use of Electoral Technology in Nigeria

The use of electoral technology in Nigeria has become an increasingly important component of efforts to enhance the transparency, credibility, and efficiency of the electoral process. In response to persistent challenges such as electoral fraud, ballot snatching, multiple voting, voter impersonation, and result manipulation, the Independent National Electoral Commission (INEC) has progressively introduced technological innovations aimed at improving electoral administration and strengthening public confidence in elections. Empirical studies provide mixed evidence on the effectiveness of these innovations, with some reporting measurable improvements in voter authentication and electoral transparency, while others highlight persistent operational and infrastructural constraints that limit their overall impact. Evidence from early reforms shows that biometric voter registration significantly reduced multiple registrations through the electronic capture of voters' fingerprints and facial data, thereby improving the accuracy of the voter register, while the introduction of the Permanent Voter Card (PVC) further strengthened voter authentication at polling units. Empirical assessments of the Smart Card Reader used in the 2015 General Elections indicate that it contributed to reducing voter impersonation in several polling units; however, studies also document frequent technical failures, network dependency problems, and inconsistent functionality that affected its reliability. More recent empirical findings on the 2023 General Elections show that the Bimodal Voter Accreditation System (BVAS) improved biometric accreditation accuracy and reduced instances of multiple voting in many locations, although challenges such as device malfunction, delayed accreditation, and uneven performance across polling units were also reported. Similarly, empirical analyses of the INEC Result Viewing Portal (IREV) suggest that while it enhanced transparency through electronic result uploads, issues such as delayed uploads, system downtime, and inconsistent usage across states weakened public confidence in result transmission. The study indicates that electoral technology has contributed to improvements in voter verification and administrative transparency in Nigeria; however, its effectiveness remains

uneven due to challenges such as poor internet connectivity, inadequate training of electoral officials, cybersecurity concerns, logistical constraints, and political interference. Consequently, recent empirical scholarship increasingly argues that electoral technology should be understood as an enabling tool whose success depends on broader institutional capacity, infrastructural development, and governance quality within Nigeria's electoral system.

Empirical Review

Studies on electoral reform and electoral technology generally indicate that technological innovations can improve electoral transparency, voter verification, and electoral integrity, although their effectiveness depends largely on institutional capacity and infrastructural readiness. Globally, Norris (2014) found that biometric voter registration and electronic result transmission reduced electoral manipulation and improved public trust in countries with strong democratic institutions. Similarly, the International Foundation for Electoral Systems (IFES, 2021) reported that countries such as Brazil and Estonia achieved improvements in electoral administration through digital electoral systems, despite challenges relating to cybersecurity and digital exclusion. Within Africa, empirical findings present mixed outcomes. Omotola (2019) observed that Kenya's biometric voter verification system improved voter authentication but technical failures and controversies surrounding electronic result transmission weakened public trust. Likewise, Gyampo and Asare (2020) found that Ghana's biometric verification system reduced multiple voting and voter impersonation, although operational delays and inadequate technical training affected efficiency in some polling units.

In Nigeria, several studies have examined the effectiveness of electoral technologies during the 2023 General Elections. Adebayo (2023) found that the Bimodal Voter Accreditation System (BVAS) significantly reduced voter impersonation and multiple voting, thereby improving the credibility of voter accreditation. However, the study identified network failures, device malfunction, and logistical challenges as major limitations. Similarly, Eya and Musa (2024) reported that the INEC Result Viewing Portal (IREV) enhanced transparency through electronic result uploads, but delayed uploads and inconsistent transmission generated public criticism and distrust. Okeke and Ibrahim (2024) further observed that although electoral technologies improved accountability and transparency, institutional weaknesses, political interference, and poor infrastructural support limited their overall effectiveness. Reports by the Independent

National Electoral Commission (INEC, 2023) and election observer missions also confirmed that while BVAS improved accreditation accuracy and reduced electoral malpractice, technical glitches, poor connectivity, and operational inconsistencies weakened confidence in the electoral process. Conclusively, the literature suggests that electoral technology has contributed positively to electoral administration and transparency, but its effectiveness remains constrained by infrastructural and institutional challenges.

Research Gap

Existing studies on electoral reform and electoral technology have examined the role of biometric accreditation systems and electronic result transmission in improving electoral transparency and integrity. However, many of these studies focus mainly on descriptive discussions of BVAS and IReV without adequately examining their combined implications for democratic consolidation and public confidence after Nigeria's 2023 General Elections. In addition, most previous studies rely heavily on documentary analysis and observer reports, with limited use of quantitative data obtained directly from voters. Furthermore, while earlier studies identified challenges such as technical failures, poor network infrastructure, and political interference, limited attention has been given to how these factors affected the overall effectiveness of electoral reforms in strengthening democratic governance in Nigeria. This study therefore fills this gap by examining the influence of electoral reforms and technological innovations on electoral integrity, democratic consolidation, and public trust during Nigeria's 2023 General Elections.

Theoretical Framework

The theoretical framework for this study is anchored on Everett Rogers' Diffusion of Innovation Theory, which explains how new ideas, practices, or technologies are introduced, communicated, and adopted within a social system over time. The theory is particularly relevant to electoral technology because it provides a structured explanation of how innovations such as biometric accreditation systems and digital result platforms progress from introduction to partial or full adoption. Rogers outlines the adoption process in five stages—knowledge, persuasion, decision, implementation, and confirmation—while also classifying adopters into innovators, early adopters, early majority, late majority, and laggards. These stages and categories are not abstract in this study; rather, they can be linked to observable indicators within Nigeria's electoral system. At the implementation level, the Independent National Electoral Commission (INEC)

functions as the primary innovation introducer, while electoral officers and polling unit staff represent key adopter groups whose competence and responsiveness determine implementation outcomes. The knowledge stage can be linked to voter and official awareness of technologies such as BVAS and IReV, assessed through training coverage and sensitization levels. The persuasion stage is reflected in stakeholder attitudes and trust in electoral technology, often measured through voter confidence and acceptance rates. The decision and implementation stages correspond to actual deployment during elections, observable through accreditation success rates, system uptime, and frequency of technical disruptions. The confirmation stage is reflected in post-election acceptance or rejection of results, evidenced through litigation frequency, public trust surveys, and electoral protest patterns. Furthermore, Rogers' innovation attributes provide clearer analytical and measurable indicators for evaluating electoral technology in Nigeria, where relative advantage is reflected in BVAS performance compared to manual accreditation in reducing voter impersonation and multiple voting, compatibility is measured through alignment with Nigeria's infrastructural capacity such as network availability and power supply stability, complexity is evident in reported operational difficulties including device malfunction and limited technical competence among electoral officers, trialability is observable in the phased introduction of technologies across election cycles, and observability is reflected in transparency outcomes such as public access to polling unit results via IReV. By linking these theoretical constructs to observable indicators, the framework moves beyond description to provide an analytical tool for assessing variations in adoption rates, implementation efficiency, and performance outcomes of electoral technologies across Nigeria's 2023 General Elections, thereby enabling a systematic explanation of how diffusion dynamics shape electoral integrity, administrative effectiveness, and public confidence in the electoral process.

Methodology

This study adopts a quantitative research approach and a descriptive survey design to examine the implications of electoral reforms and technological innovations for democratic consolidation in Nigeria, with particular reference to the 2023 General Elections conducted by the Independent National Electoral Commission (INEC). The study was conducted in selected Local Government Areas (LGAs) within Lagos State, Nigeria, chosen due to its large voter population, diverse

electoral environment, and high exposure to electoral technologies such as the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV). The sampling frame consisted of registered voters obtained from INEC polling unit registers within the selected LGAs, while the study population comprised eligible voters who participated in the 2023 General Elections. A sample size of 200 respondents was determined using the Taro Yamane formula at a 5% margin of error, and a simple random sampling technique was adopted to ensure equal representation and reduce selection bias. A structured questionnaire was used as the primary instrument for data collection, designed based on key constructs derived from the literature, including electoral reform awareness, use of electoral technology (BVAS and IReV), electoral integrity, and public trust in democratic institutions, thereby ensuring consistency between conceptual discussions and measurable variables. Content validity was established through expert review by scholars in Political Science and Research Methodology, while reliability was confirmed through a pilot test using Cronbach's Alpha, which yielded a coefficient of 0.80, indicating strong internal consistency. Ethical considerations such as informed consent, voluntary participation, confidentiality, and anonymity were strictly observed. Data analysis was conducted using descriptive statistical tools such as frequency counts and percentages, and all abstract concepts were operationalized into measurable indicators within the questionnaire; for instance, BVAS effectiveness was assessed through respondents' experience of accreditation speed and accuracy, while IReV effectiveness was measured through perceived transparency in result viewing. This alignment ensures consistency between the conceptual framework and quantitative analysis, and the findings were structured in line with the research questions to allow systematic interpretation of electoral reforms and technological innovations in Nigeria's 2023 General Elections.

Data Presentation and Analysis

This section presents and analyses data collected from 200 respondents using a structured questionnaire. The analysis combines descriptive statistics such as frequency counts and percentages with inferential statistical analysis using the Chi-square goodness-of-fit test. The inferential analysis was introduced to determine whether observed response patterns differ significantly from expected neutral distributions, thereby strengthening the analytical depth and explanatory validity of the findings regarding electoral reforms and technological innovations in Nigeria's 2023 General Elections..

Table 1: Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	112	56%
	Female	88	44%
Age Group	18–25 years	46	23%
	26–35 years	70	35%
	36–45 years	52	26%
	46 years and above	32	16%
Educational Level	Primary	18	9%
	Secondary	54	27%
	Tertiary	110	55%
	No Formal Education	18	9%
Occupation	Civil Servant	62	31%
	Trader/Business	58	29%
	Student	44	22%
	Farmer	18	9%
	Others	18	9%

Source: Research Survey, 2025

Interpretation

The demographic distribution shows balanced representation across gender, age, educational background, and occupation, thereby improving the representativeness of the study. The dominance of respondents within the economically active age bracket of 26–45 years (61%) suggests that the findings largely reflect the perceptions of politically active citizens who directly participated in the 2023 General Elections. Furthermore, the high proportion of tertiary-educated respondents (55%) indicates that most participants possessed sufficient political awareness to critically evaluate electoral reforms and technological innovations such as BVAS and IReV. Beyond descriptive representation, the demographic pattern has analytical implications for the study. The educational profile of respondents strengthens the reliability of opinions expressed on electoral technology because respondents are more likely to understand operational issues relating to biometric accreditation, result transmission, and electoral transparency. Similarly, the

occupational diversity of respondents reduces the risk of sectoral bias and suggests that perceptions of electoral reforms cut across different socio-economic groups within the study area.

Research Question One

To what extent have electoral reforms and technological innovations contributed to democratic consolidation in Nigeria?

Table 2: Respondents' Perception of Electoral Reforms and Technological Innovations on Democratic Consolidation in Nigeria

Response	Frequency	Percentage (%)
Strongly Agree	88	44%
Agree	72	36%
Disagree	28	14%
Strongly Disagree	12	6%
Total	200	100%

Source: Research Survey, 2025

Interpretation

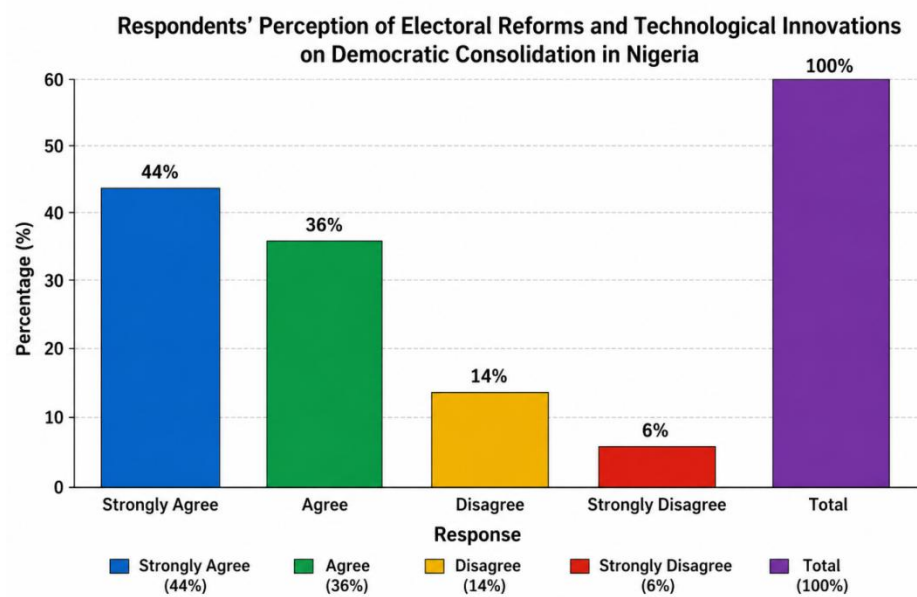
The findings reveal that a substantial majority of respondents expressed positive perceptions regarding the contribution of electoral reforms and technological innovations to democratic consolidation in Nigeria. Specifically, 44% strongly agreed and 36% agreed, representing a combined positive response rate of 80%, while only 20% expressed negative opinions. This indicates broad public acceptance of reforms such as BVAS and IReV as mechanisms for improving electoral transparency, accountability, and democratic governance.

To move beyond mere descriptive analysis, a Chi-square goodness-of-fit test was conducted to determine whether the observed response distribution differed significantly from a neutral distribution. The result ($\chi^2 = 77.12$, $df = 3$, $p < 0.001$) shows that the pattern of responses is statistically significant and not due to random variation. This inferential outcome strengthens the validity of the finding by confirming that public opinion is strongly skewed toward support for electoral reforms and technological innovations.

The findings further suggest that respondents perceive electoral technology as contributing to democratic consolidation by reducing opportunities for electoral malpractice, improving transparency in voter accreditation, and increasing confidence in electoral administration.

However, the minority negative responses also reveal underlying concerns regarding operational reliability, delayed result transmission, technical glitches, and institutional inconsistencies. This implies that although electoral reforms have improved democratic processes, technological innovation alone is insufficient without adequate infrastructure, institutional independence, and effective implementation mechanisms.

Figure 1: Respondents` Perception of Electoral Reforms and Technological Innovations



Source: Research Survey, 2025

Interpretation

Figure 1 visually reinforces the statistical pattern observed in Table 2. However, beyond visual dominance of agreement responses, the Chi-square result confirms that this pattern is **statistically significant ($p < 0.001$)** rather than a random occurrence. This indicates a strong and consistent public perception that electoral innovations are improving Nigeria’s democratic process. Nevertheless, the minority negative responses reflect persistent concerns about operational reliability and institutional trust, which slightly weaken full confidence in electoral technology.

Research Question Two

To what extent has the Bimodal Voter Accreditation System (BVAS) influenced voter accreditation efficiency and electoral credibility in Nigeria’s 2023 General Elections?

Table 3: Respondents’ Perception of BVAS and Voter Accreditation Efficiency

Response	Frequency	Percentage (%)
Strongly Agree	92	46%
Agree	68	34%
Disagree	26	13%
Strongly Disagree	14	7%
Total	200	100%

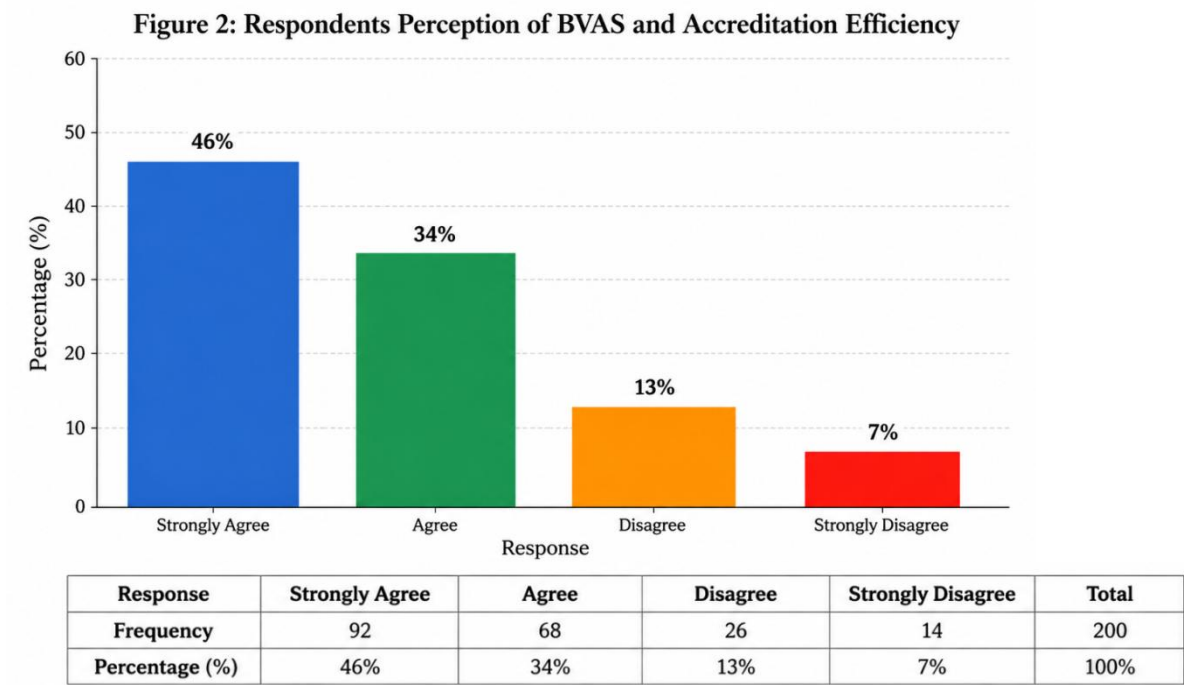
Source: Research Survey, 2025

Interpretation

The results indicate that BVAS is widely perceived as improving voter accreditation efficiency and electoral credibility during Nigeria’s 2023 General Elections. A combined 80% of respondents either strongly agreed (46%) or agreed (34%) that BVAS enhanced accreditation efficiency, while only 20% expressed negative perceptions. This demonstrates strong public confidence in the capacity of biometric accreditation technology to reduce voter impersonation, multiple voting, and manipulation associated with manual accreditation systems. To strengthen analytical rigor, a Chi-square goodness-of-fit test was conducted to assess whether the observed response pattern was statistically significant. The result ($\chi^2 = 79.20$, $df = 3$, $p < 0.001$) confirms that the distribution of responses is significantly skewed toward approval and is not a product of chance. This inferential finding provides empirical support for the argument that BVAS contributed positively to electoral credibility and transparency during the 2023 General Elections.

Beyond descriptive trends, the findings indicate that respondents associate BVAS with increased electoral accountability and reduced human interference in voter accreditation. Nevertheless, the dissenting responses reveal important operational limitations such as biometric authentication failures, poor network connectivity, delayed accreditation processes, and inadequate technical support in some polling units. These findings suggest that while BVAS represents a major advancement in Nigeria’s electoral system, its effectiveness remains dependent on infrastructural stability, technical preparedness, and institutional efficiency.

Figure 2: Respondents Perception of BVAS and Accreditation Efficiency



Source: Research Survey, 2025

Interpretation

Figure 2 presents respondents’ perceptions of the effectiveness of the Bimodal Voter Accreditation System (BVAS) in improving voter accreditation efficiency during Nigeria’s electoral process. The results show a strong positive evaluation, with 46% of respondents strongly agreeing and 34% agreeing that BVAS improved accreditation efficiency. In contrast, 13% disagreed while 7% strongly disagreed, indicating a minority of respondents who experienced challenges with the system. This distribution suggests that BVAS is generally perceived as an effective technological innovation that enhances transparency, reduces voter impersonation, and improves the credibility of voter accreditation in Nigeria’s elections. To determine whether this observed pattern is statistically significant, a Chi-square goodness-of-fit test was conducted ($\chi^2 = 79.20, p < 0.001$). The result indicates that the distribution of responses is **statistically significant**, meaning that respondents’ views are not randomly distributed but are strongly skewed toward positive perception. However, despite this statistical significance, the existence of dissenting responses highlights persistent operational challenges such as biometric authentication failures, network instability, and delays in accreditation in some polling units.

This suggests that while BVAS is widely accepted as improving electoral efficiency, its effectiveness is still constrained by infrastructural and implementation-related issues.

Discussion of Findings

The findings of this study reveal that electoral reforms and technological innovations have significantly influenced democratic governance and electoral administration in Nigeria. Data obtained from respondents indicate a strong perception that the introduction of electoral technologies such as the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV) enhanced electoral transparency, voter accreditation, and public confidence during the 2023 General Elections, suggesting that technological reforms are increasingly central to public assessment of electoral credibility in Nigeria. The study further shows that BVAS contributed to reducing electoral irregularities such as multiple voting, voter impersonation, and manipulation of voter accreditation, indicating that biometric-based systems have practical value in strengthening electoral administration by limiting human interference in the accreditation process. Similarly, IReV improved access to polling unit results and strengthened accountability by making election outcomes more visible to the public. However, the findings also reveal that the effectiveness of these technologies was constrained by challenges such as technical malfunctions, delayed transmission of results, poor network connectivity, inadequate training of electoral officials, and inconsistent system performance across locations, highlighting that technological innovation alone is insufficient without adequate infrastructural and institutional support. The study further indicates that while electoral reforms are widely perceived as necessary for democratic governance, their impact remains uneven in practice, as improvements associated with the Electoral Act 2022 and electoral technologies were still moderated by political interference, vote buying, insecurity, and logistical constraints. In essence, electoral reforms and technological innovations have produced measurable improvements in Nigeria's electoral process, but these gains remain partial and context-dependent, requiring sustained institutional strengthening for deeper democratic consolidation.

Summary

This study examined electoral reform and the use of technology in Nigeria's 2023 General Elections from global, continental, and national perspectives. The study specifically explored the extent to which electoral reforms and technological innovations contributed to democratic consolidation, electoral integrity, and public confidence in the electoral process.

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The study adopted a quantitative research approach and descriptive survey design. Data were collected through the use of structured questionnaires administered to 200 respondents selected through simple random sampling. Data analysis was conducted using frequency counts and percentages.

The findings revealed that the majority of respondents perceived electoral reforms and technological innovations positively. The introduction of BVAS and IReV improved voter accreditation, transparency, and accountability in the electoral process. The study also found that electoral technology reduced certain forms of electoral malpractice such as multiple voting and voter impersonation. However, technical glitches, poor network infrastructure, delayed transmission of results, and operational challenges limited the effectiveness of these innovations in some areas. The study further established that electoral reforms remain critical to democratic consolidation and electoral integrity in Nigeria. Nevertheless, technological innovation alone is insufficient to guarantee credible elections without institutional independence, adequate infrastructure, political accountability, and effective implementation of electoral laws.

Conclusion

This study concludes that electoral reforms and technological innovations have become indispensable components of contemporary democratic governance and electoral administration in Nigeria. The introduction of technologies such as the Bimodal Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IReV) during the 2023 General Elections represented significant efforts by the Independent National Electoral Commission to improve electoral transparency, reduce electoral fraud, and strengthen public confidence in the electoral process.

Although these technological innovations contributed positively to voter verification and electoral accountability, the persistence of technical failures, infrastructural deficiencies, and political interference demonstrates that technology alone cannot completely eliminate electoral challenges. Therefore, sustainable democratic consolidation in Nigeria requires continuous electoral reforms, institutional independence, effective legal frameworks, voter education, improved technological infrastructure, and political commitment to democratic principles.

Recommendations

1. The Independent National Electoral Commission (INEC) should specifically address the issue of network failure and delayed result transmission observed during the 2023 General Elections by establishing dedicated offline–online hybrid transmission systems for polling units in low-network areas. This should include pre-tested backup servers and strengthened partnerships with multiple telecommunication providers to ensure redundancy in result upload processes.
2. INEC should enhance the effectiveness of the Bimodal Voter Accreditation System (BVAS) by addressing recurring biometric authentication failures and device malfunction experienced in some polling units. This can be achieved through improved device calibration before elections, real-time technical support teams at collation centres, and the deployment of spare devices to reduce accreditation delays.
3. The Commission should intensify practical, hands-on training for electoral officials, particularly focusing on BVAS and IReV operations, in response to observed inconsistencies in system usage and operational errors during the election. Training should be simulation-based and conducted closer to election periods to ensure retention and operational readiness.
4. To address the issue of low public trust caused by delayed result uploads and perceived inconsistencies in result management, voter education should be strengthened to improve understanding of how BVAS and IReV function. This should include targeted communication explaining system limitations (such as network dependency) to reduce misinformation and electoral suspicion.
5. The Federal Government and electoral stakeholders should invest in electoral cybersecurity and system resilience, particularly in response to vulnerabilities linked to system downtime and technical disruptions observed during the 2023 elections. This should include real-time monitoring systems, stronger encryption protocols, and independent system audits before and after elections.

6. Electoral reforms should be continuously refined to address implementation gaps between legal provisions (Electoral Act 2022) and practical electoral outcomes, especially in relation to technology deployment. This should involve post-election technical reviews, stakeholder feedback integration, and stricter enforcement of operational standards for electoral officers.

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