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## THE ROLE OF THE BIMODAL VOTER ACCREDITATION SYSTEM (BVAS) IN ENHANCING ACCURACY AND TRANSPARENCY IN KOGI STATE ELECTIONS, 2023 – 2025

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### Abstract

*The credibility of elections in Nigeria has often been undermined by irregularities in voter accreditation, raising concerns about accuracy and transparency in the electoral process. In response, the Independent National Electoral Commission (INEC) introduced the Bimodal Voter Accreditation System (BVAS) as a technological innovation to improve electoral integrity. Despite its potential, operational and logistical challenges have raised questions about its overall effectiveness. This study examined the role of BVAS in enhancing the accuracy and transparency of voter accreditation in Kogi State elections between 2023 and 2025. The main aim was to assess the extent to which BVAS improved the reliability of accreditation processes while identifying challenges affecting its optimal performance. A multi-theoretical framework was adopted, combining Modernisation Theory, Systems Theory, Diffusion of Innovations Theory, Democratic Theory, and the Technology Acceptance Model to provide a comprehensive analytical lens. The study employed a descriptive survey research design to collect and analyse relevant data. Findings revealed that BVAS significantly reduced incidents of multiple voting and identity fraud, thereby improving the accuracy of accreditation. However, technical malfunctions, poor network connectivity, and inadequate training of electoral staff hindered its full potential. Based on the findings, the study recommended that INEC provide comprehensive, hands-on training for election officials and ad-hoc staff to minimise operational errors. Furthermore, it suggested investment in upgrading BVAS infrastructure, including offline data storage and enhanced battery capacity, to ensure reliability in areas with poor connectivity and limited electricity supply.*

**Keywords:** Accuracy, Bimodal Voter Accreditation System (BVAS), Elections, Kogi State, Transparency.

### 1. Introduction

Electoral integrity is a cornerstone of democratic governance, ensuring that citizens' votes are accurately captured, counted, and reflected in political outcomes. In Nigeria, historical challenges such as electoral fraud, multiple voting, ballot box stuffing, and result manipulation have eroded public confidence in the electoral process (Omodia, 2022). In response, the

Independent National Electoral Commission (INEC) introduced technological innovations to improve transparency and credibility. One of the most significant of these is the Bimodal Voter Accreditation System (BVAS), which combines fingerprint and facial recognition to verify voters' identities before they are allowed to cast their ballots (INEC, 2023).

BVAS was designed to address long-standing accreditation challenges under previous systems like the Smart Card Reader (SCR), which was limited to fingerprint recognition and often prone to malfunction (Okoye, 2023). By providing dual biometric verification, BVAS aims to ensure that only eligible and properly accredited voters participate in elections, thereby reducing incidents of impersonation, over-voting, and other electoral malpractices (Adewale, 2024). In addition to accreditation, BVAS is also used for uploading polling unit results directly to the INEC Result Viewing (IReV) portal, enhancing transparency and enabling real-time public access to election outcomes.

In Kogi State, which has a history of high-stakes political contests and electoral disputes, the deployment of BVAS in the 2023 elections marked a significant shift in electoral administration. However, while BVAS has the potential to transform electoral integrity, its implementation has not been without challenges. Reports from various observers and civil society organisations have noted issues such as device malfunction, network connectivity problems, and logistical delays in some polling units (Olaolu, 2024). These operational setbacks raise important questions about the extent to which BVAS has achieved its intended goals in the state.

Understanding the role of BVAS in enhancing electoral accuracy and transparency in Kogi State between 2023 and 2025 is vital for both electoral reform and democratic consolidation. This study examines its effectiveness in curbing voter accreditation irregularities and assesses the logistical and operational constraints affecting its deployment. The findings are expected to provide valuable insights for policymakers, election managers, and civil society stakeholders interested in strengthening Nigeria's electoral process.

Despite the promise of BVAS in promoting free, fair, and credible elections, its practical deployment in Kogi State has revealed persistent challenges that threaten to undermine its effectiveness. While the system was

intended to curb multiple voting, reduce accreditation fraud, and enhance transparency, evidence from the 2023 general elections shows that these objectives were not fully realised (Adewale, 2024). In several polling units, technical hitches such as battery failures, software glitches, and delayed voter accreditation hindered smooth operations. Furthermore, network limitations in rural areas affected the prompt transmission of results to the IReV portal, creating opportunities for mistrust and misinformation.

Electoral stakeholders in Kogi State continue to express concerns over whether BVAS has substantially improved voter accreditation accuracy compared to previous election cycles. Political actors and civil society organisations have also questioned the level of preparedness and technical capacity of INEC officials and ad hoc staff in handling the devices under field conditions. These concerns are compounded by allegations from some quarters that even with BVAS, manipulation of results at collation centres remains possible, undermining the system's transparency gains. If these challenges are not adequately addressed, the credibility of elections in Kogi State may remain in question despite technological reforms. Therefore, a systematic assessment of BVAS's performance, accuracy, and transparency outcomes, alongside the operational barriers encountered, is urgently needed to inform future electoral reforms and strengthen democratic processes in Nigeria.

### Research Questions

- i. To what extent has the Bimodal Voter Accreditation System (BVAS) enhanced the accuracy and transparency of voter accreditation in Kogi State elections?
- ii. What operational and logistical challenges have affected the effective implementation of BVAS in Kogi State elections?

### Objectives of the study

- i. To examine the extent to which BVAS has enhanced the accuracy and transparency of voter accreditation in Kogi State elections.

- ii. To identify the operational and logistical challenges associated with the implementation of BVAS in Kogi State elections.

## 2. Literature Review

### 2.1 Conceptual Framework

#### Bimodal Voter Accreditation System (BVAS)

The conceptual framework for this study revolves around understanding the Bimodal Voter Accreditation System (BVAS) as a technological intervention in electoral administration, particularly in Nigeria. BVAS is situated within the broader discourse on electoral technology, transparency, and democratic consolidation.

The Independent National Electoral Commission (INEC, 2023) describes the Bimodal Voter Accreditation System as an electronic device designed to perform dual biometric authentication of voters, using both fingerprint and facial recognition, to ensure that only eligible voters participate in elections. This dual verification approach addresses the limitations of earlier accreditation methods, such as the Smart Card Reader (SCR), which relied solely on fingerprints and was prone to malfunction or rejection errors.

Omodia (2022) defines BVAS as “a biometric-driven voter verification tool aimed at eliminating accreditation fraud by authenticating the identity of voters through two separate but complementary biometric parameters.” This definition highlights the system’s operational focus on preventing impersonation and over-voting, thus enhancing the credibility of the electoral process.

Similarly, Adewale (2024) explains BVAS as “an electoral technology innovation that integrates biometric verification with electronic transmission of results from polling units, thereby strengthening transparency in election management.” This definition expands the understanding of BVAS beyond voter accreditation to include its role in transmitting

results to the INEC Result Viewing (IREV) portal, which promotes real-time public access to results and reduces opportunities for manipulation during collation.

The BVAS system is underpinned by two central concepts—accuracy and transparency.

*Accuracy in electoral accreditation refers to the precise verification of a voter’s eligibility, ensuring that only validly registered individuals are allowed to cast ballots. BVAS contributes to accuracy by cross-verifying biometric data with INEC’s central database, thereby reducing errors and fraud (Okoye, 2023).*

*Transparency relates to the openness of electoral processes, where actions and outcomes can be observed, verified, and trusted by stakeholders. By enabling real-time uploading of results and providing verifiable accreditation data, BVAS strengthens transparency in elections (Olaolu, 2024).*

Another relevant concept is operational efficiency, which considers the system’s ability to function effectively under diverse conditions, including rural areas with poor network connectivity. While BVAS promises improved electoral credibility, its performance depends on adequate training of personnel, device reliability, and infrastructure support (Adewale, 2024).

For the purpose of this study, the Bimodal Voter Accreditation System (BVAS) is defined as:

*A dual biometric electoral device deployed by the Independent National Electoral Commission to verify the identity of voters through fingerprint and facial recognition, and to facilitate the electronic transmission of results from polling units, with the aim of enhancing accuracy and transparency in Nigeria’s elections.*

This definition reflects the system’s dual functional components biometric voter authentication and result

transmission and its intended contribution to electoral integrity in Kogi State between 2023 and 2025. In this study, BVAS is conceptualised as an independent variable influencing the dependent variables of electoral accuracy and electoral transparency. The framework assumes that effective deployment of BVAS can significantly reduce voter impersonation, over-voting, and result manipulation, thereby improving electoral credibility. However, this relationship is moderated by operational and logistical challenges, such as technical malfunctions, inadequate training, and infrastructural limitations, which may affect the extent to which BVAS achieves its intended outcomes.

### **Elections**

Elections are universally acknowledged as the principal mechanism for conferring legitimacy on governments within democratic systems. They represent a structured and periodic process through which citizens exercise their right to choose representatives and influence public policy (Okoye, 2023). The conceptualisation of elections in political science draws from democratic theory, governance studies, and legal frameworks that define their conduct and outcomes.

According to Heywood (2021), elections are “*a formal and organised process of selecting individuals for public office through the expression of choice by an electorate.*”

This definition emphasises elections as institutionalised mechanisms for leadership selection within a legal framework. *Diamond and Morlino (2018)* define elections as “a method of translating the preferences of citizens into authoritative political outcomes, conducted under rules guaranteeing competition, participation, and civil liberties.” This perspective underscores the procedural and substantive dimensions of elections, linking them to democratic values. *Omodia (2022)* describes elections as “a democratic instrument for the peaceful transfer of political power, enabling citizen participation in governance while providing accountability through periodic leadership renewal.” This definition highlights the governance function of elections, especially in multi-ethnic and transitional democracies such as Nigeria. *Adewale (2024)* further

conceptualises elections as “a periodic civic engagement through which citizens confer legitimacy on political authority, under conditions of fairness, transparency, and inclusivity.” This stresses the role of fairness and transparency as benchmarks of electoral credibility.

For the purpose of this study, elections are defined as:

*A constitutionally mandated and periodic democratic process through which eligible citizens choose their representatives or decide on public issues by casting votes under free, fair, transparent, and competitive conditions.*

This definition incorporates both the procedural aspects (periodicity, voting, legal mandate) and the normative principles (freedom, fairness, transparency) that underpin credible elections. In this study, elections are considered as the central mechanism linking political participation to governance outcomes. The quality of elections measured in terms of accuracy, transparency, and fairness directly affects public trust in institutions and the stability of the political system. Factors such as electoral technology (e.g., the Bimodal Voter Accreditation System), legal reforms, and institutional capacity serve as moderating variables influencing electoral integrity.

Thus, within this conceptual framework, elections are not only procedural events but also complex socio-political processes whose quality determines the degree of legitimacy and stability in governance.

### **Accuracy**

For the purpose of this study, accuracy refers to the extent to which electoral processes, particularly voter accreditation, are conducted without errors or distortions, ensuring that only eligible voters are correctly identified and allowed to cast their ballots. In electoral administration, accuracy involves the precise matching of voter identities with official records, thereby eliminating irregularities such as multiple voting, impersonation, or accreditation mismatches (Okoye, 2023). *Adewale (2024)* notes that accuracy in elections is achieved when data collection, verification,

and counting procedures are consistent with established legal and procedural standards, leaving no room for manipulation or misrepresentation of results.

### Transparency

In the context of this study, transparency denotes the openness and verifiability of the electoral process, allowing stakeholders including voters, political parties, observers, and civil society organisations to scrutinise each stage of the election in a manner that inspires trust and confidence. Transparency requires that electoral activities, from accreditation to result collation, are conducted in a manner that is accessible, observable, and supported by publicly available information (Olaolu, 2024). According to Omodia (2022), transparency in elections is characterised by timely disclosure of procedures, data, and results, enabling independent verification and minimising opportunities for secrecy or fraud.

The introduction of the Bimodal Voter Accreditation System (BVAS) by the Independent National Electoral Commission (INEC) in Nigeria marks a significant milestone in the application of technology to electoral processes. BVAS performs two primary functions: biometric accreditation of voters using fingerprint and facial recognition, and the electronic transmission of results from polling units to the INEC Result Viewing (IReV) portal (INEC, 2023).

The system was designed to replace the Smart Card Reader (SCR) introduced in 2015, which relied solely on fingerprint authentication and proved insufficient in addressing voter impersonation and over-voting (Okoye, 2023). BVAS addresses these limitations by offering a dual biometric verification process, which enhances accuracy in voter identification and reduces accreditation fraud (Adewale, 2024).

Transparency, another critical dimension of BVAS, is linked to the immediate transmission of results to the IReV portal. This feature reduces opportunities for result tampering during collation and allows stakeholders to observe results in near real-time,

strengthening trust in electoral outcomes (Omodia, 2022).

However, despite its potential, the implementation of BVAS has been accompanied by operational and logistical challenges such as technical malfunctions, inadequate personnel training, and poor network connectivity, especially in rural areas (Olaolu, 2024). These issues raise questions about the system's efficiency and its ability to deliver on its intended objectives in high-stakes political environments like Kogi State.

### 2.2 Empirical Review

Adewale (2024) examined "*BVAS and Electoral Integrity in Nigeria's 2023 General Elections.*" The study addressed the persistence of electoral fraud and accreditation irregularities in Nigeria despite the introduction of technological reforms. The primary objective was to examine the extent to which the Bimodal Voter Accreditation System (BVAS) enhanced accuracy in voter accreditation during the 2023 elections. The research adopted the Modernisation Theory, which highlights how technological advancements can improve governance systems. Employing a mixed-methods approach comprising surveys of voters, structured interviews with electoral officials, and document analysis the study found that BVAS significantly reduced incidents of multiple voting and impersonation. However, operational difficulties, such as device malfunctions and delayed accreditation in remote polling units, posed challenges to its effectiveness.

Similarly, Omodia (2022) conducted a study titled "*Electoral Technology and Transparency in Nigeria: The Promise of BVAS.*" The research was motivated by declining public trust in Nigeria's electoral process, fuelled by perceived opacity and persistent allegations of result manipulation. The study aimed to evaluate the contribution of BVAS to electoral transparency in Nigeria and adopted Democratic Theory, focusing on the link between transparency and legitimacy in electoral processes. Using a qualitative methodology that involved the analysis of INEC reports, findings

from observer groups, and media coverage, the study revealed that BVAS enhanced transparency by providing immediate, verifiable accreditation data and facilitating online access to results via the INEC Result Viewing (IReV) portal. Nevertheless, delayed uploads in certain locations undermined public confidence in the system.

Okoye (2023) investigated “*Technological Innovations and Electoral Credibility: A Study of BVAS in Subnational Elections.*” The study focused on inconsistencies in voter accreditation and result collation at the state level in Nigeria. The objective was to assess the operational performance of BVAS in recent gubernatorial elections. The research was anchored on Systems Theory, which considers BVAS as part of an interconnected electoral management system. Using a case study approach, the research covered three Nigerian states, including Kogi, and involved interviews with INEC staff alongside an analysis of accreditation records. The findings showed that BVAS significantly improved the accuracy of accreditation data and reduced over-voting. However, insufficient technical support and inadequate troubleshooting mechanisms affected operational efficiency.

### 2.3 Theoretical Framework

This study adopted a multi-theoretical framework combining Modernisation Theory, Systems Theory, Diffusion of Innovations Theory, Democratic Theory, and the Technology Acceptance Model to explain how the Bimodal Voter Accreditation System (BVAS) might enhance accuracy and transparency in Kogi State elections between 2023 and 2025.

#### Assumptions of the Theories

Modernisation Theory assumes that technological advancement drives institutional improvement and democratic consolidation, implying that the introduction of BVAS will lead to more accurate accreditation and greater openness in electoral processes (Lipset, 1959; Adewale, 2024). Systems Theory views electoral administration as an

interconnected set of components—people, devices, procedures and information flows—and assumes that changes in one component (for example, adoption of BVAS) will produce systemic effects on accreditation accuracy and result transparency (Okoye, 2023). Diffusion of Innovations Theory assumes that the adoption and effective use of new technologies depend on factors such as relative advantage, compatibility, complexity, trialability and observability, suggesting that BVAS will be more effective where these adoption conditions are favourable (Rogers, 2003; Olaolu, 2024). Democratic Theory assumes that transparency and accountability are core to legitimacy and that technologies like BVAS can strengthen citizens’ trust in electoral outcomes when they increase observable and verifiable processes (Omodia, 2022). The Technology Acceptance Model assumes that perceived usefulness and perceived ease of use will determine the acceptance of BVAS by election officials and voters, thereby affecting operational success and the realisation of accuracy and transparency goals (Davis, 1989; Yusuf & Bala, 2023).

#### Critics of the Theories

Each theoretical strand carries critics. Modernisation Theory has been criticised for technological determinism and for overlooking the political and socio-cultural barriers that may prevent technology from producing democratic outcomes in contexts with weak institutions or vested interests. Systems Theory is criticised for potentially underplaying agency and power asymmetries, which can allow actors to subvert technological controls despite systemic interconnections. Diffusion of Innovations Theory has been challenged for insufficiently accounting for structural inequalities—such as digital divides—that hinder adoption in rural or marginalised communities. Democratic Theory’s technological optimism is critiqued for assuming that transparency tools automatically translate into legitimacy, whereas transparency without accountability mechanisms can be performative. The Technology Acceptance Model is criticised for its individualistic focus and for failing to incorporate organisational capacity, political

incentives, and infrastructural constraints that shape technology uptake in electoral contexts.

### Applicability of the Theory to the Study

Despite these criticisms, the combined theoretical framework is directly applicable to the BVAS case in Kogi State. Modernisation Theory helps justify the policy import of adopting BVAS as part of broader electoral reform. Systems Theory directs attention to the need for coordination among INEC staff, logistics, power supply and network infrastructure to ensure device effectiveness. Diffusion of Innovations explains why adoption and performance may vary across urban and rural polling units and highlights the importance of trial runs and community sensitisation. Democratic Theory underlines the normative aim of BVAS in enhancing legitimacy through observable accreditation and result transmission. The Technology Acceptance Model emphasises training and ease-of-use as practical levers to secure buy-in from users and to reduce procedural errors.

### 3. Methodology

The study adopted a descriptive survey research design to provide a detailed examination of the subject matter. The population comprised all stakeholders directly or indirectly involved in the implementation, operation, and evaluation of the Bimodal Voter Accreditation

System (BVAS) and its influence on electoral credibility in Kogi State between 2023 and 2025. This included electoral officials, political party representatives, observers, civil society members, and other relevant participants, with a total population strength of 200.

A purposive sampling technique was employed to ensure that only respondents with direct knowledge, experience, or engagement with BVAS were included in the study. This approach allowed for the selection of individuals whose insights would contribute meaningfully to the research objectives.

The study utilised a mixed-methods approach, combining both primary and secondary sources of data. Primary data were collected through questionnaires, interviews, and focus group discussions, while secondary data were obtained from official reports, scholarly publications, and relevant archival materials. Both quantitative and qualitative data analysis techniques were employed to ensure a holistic understanding of the findings. Quantitative data were analysed using descriptive statistics, while qualitative data were subjected to thematic analysis, enabling a comprehensive evaluation of BVAS and its role in enhancing electoral credibility.

### 4. Results and Discussion

**Table 1: Respondents' Perceptions on BVAS Accuracy in Kogi State Elections**

Response Option	Frequency	Percentage (%)
Highly Accurate	110	55.0
Moderately Accurate	60	30.0
Slightly Accurate	20	10.0
Not Accurate	10	5.0
<b>Total</b>	<b>200</b>	<b>100.0</b>

The results indicate that a significant proportion of respondents (55%) perceived BVAS as highly accurate in accrediting voters during the 2023–2025 Kogi State elections. This finding aligns with INEC's objective of improving electoral integrity through technology-driven verification (INEC, 2023). The 30% who rated it

moderately accurate suggest that while BVAS reduced human errors and multiple voting, some minor discrepancies persisted. The 15% expressing lower confidence may reflect isolated technical glitches. This supports the view of Omotola (2023) that digital innovations strengthen electoral credibility but require

consistent refinement. Overall, BVAS appears to have substantially enhanced accreditation accuracy in the state.

**Table 2: Respondents' Perceptions on BVAS Transparency in Kogi State Elections**

Response Option	Frequency	Percentage (%)
Very Transparent	105	52.5
Transparent	65	32.5
Slightly Transparent	20	10.0
Not Transparent	10	5.0
<b>Total</b>	<b>200</b>	<b>100.0</b>

A majority of respondents (52.5%) rated BVAS as very transparent in voter accreditation, while 32.5% viewed it as transparent. This reinforces the argument by Olaniyi (2024) that BVAS' digital verification process reduces room for manipulation by making accreditation records verifiable. However, the 15% who considered it slightly or not transparent suggest concerns over

accessibility of real-time accreditation data and delays in result transmission. This finding reflects Yakubu's (2023) observation that transparency in elections is not only a function of technology but also of trust in the electoral process. Nevertheless, the overall ratings highlight BVAS' positive role in enhancing transparency.

**Table 3: Operational Challenges of BVAS Implementation in Kogi State Elections**

Challenge Identified	Frequency	Percentage (%)
Device Malfunction	70	35.0
Poor Network Connectivity	60	30.0
Inadequate Technical Support	40	20.0
Late Arrival of Devices	30	15.0
<b>Total</b>	<b>200</b>	<b>100.0</b>

Device malfunction emerged as the most reported operational challenge (35%), followed by poor network connectivity (30%). These issues mirror the findings of Eze (2023), who emphasised that technology-driven elections in Nigeria still face infrastructural bottlenecks. Inadequate technical support (20%) and late arrival of devices (15%) also hampered smooth operations. Such constraints can delay accreditation, potentially

discouraging voter participation and undermining confidence in the process. Nonetheless, the presence of these challenges does not negate BVAS' effectiveness but underscores the need for better technical preparedness. This aligns with the recommendation of Okoye (2023) for pre-election stress testing and logistics planning.

**Table 4: Logistical Challenges of BVAS Implementation in Kogi State Elections**

Challenge Identified	Frequency	Percentage (%)
Insufficient BVAS Devices	75	37.5
Inadequate Training for Poll Officials	65	32.5
Delays in Power Supply or Charging	40	20.0
Transportation Difficulties	20	10.0
<b>Total</b>	<b>200</b>	<b>100.0</b>

The most significant logistical challenge reported was insufficient BVAS devices (37.5%), followed by inadequate training for polling officials (32.5%). This supports the assertion of Okechukwu (2024) that insufficient equipment and poor training can compromise the potential benefits of electoral technology. Power supply issues (20%) and transportation difficulties (10%) also hindered operations, particularly in rural areas. Addressing these gaps could further enhance BVAS' reliability and efficiency. Although these challenges existed, the overall perception from previous tables suggests that BVAS still improved accuracy and transparency, making its further optimisation a worthwhile investment for future elections.

### Discussion of Findings

The findings of this study indicated that the Bimodal Voter Accreditation System (BVAS) significantly enhanced the accuracy and transparency of voter accreditation in the Kogi State elections. Respondents generally affirmed that the deployment of BVAS reduced incidences of multiple voting, voter impersonation, and inflated accreditation figures, thereby improving the credibility of the electoral process. This supports the position of Akinola (2023), who asserted that the introduction of BVAS has redefined Nigeria's electoral credibility by eliminating major flaws in the manual accreditation system. The high level of satisfaction reported by voters and electoral officials aligns with the Independent National Electoral Commission's (INEC) claim that BVAS has substantially reduced irregularities in the accreditation stage of elections.

However, the study also revealed notable operational and logistical challenges in the implementation of BVAS. These included device malfunctions, slow network connectivity, inadequate technical support, and delays in accreditation processes in some polling units. This aligns with the findings of Eze and Ibrahim (2023), who argued that while BVAS enhances electoral transparency, its effectiveness is sometimes hindered by infrastructural deficiencies and inadequate pre-election

testing. Some respondents also noted that the reliance on internet connectivity in remote areas of Kogi State created delays, thereby impacting the timely completion of accreditation and voting.

The findings therefore support the view that BVAS is a progressive innovation towards transparent elections, but its success depends on overcoming logistical constraints. While it met its core objectives of enhancing accuracy and transparency, the persistent operational challenges highlight the need for targeted capacity-building for electoral staff, robust technical maintenance, and infrastructural improvements. This dual reality underscores that while technology can transform electoral integrity, its impact is only as strong as the systems and resources that support it.

### 5. Conclusion and Recommendations

The study revealed that the Bimodal Voter Accreditation System (BVAS) significantly enhanced the accuracy and transparency of voter accreditation in Kogi State elections by reducing incidents of multiple voting and impersonation. Despite its success, the system faced notable operational and logistical challenges, including technical glitches, inadequate training for officials, and poor network connectivity in remote areas. These issues, though not diminishing BVAS's overall effectiveness, highlight the need for targeted improvements. Strengthening technical capacity and addressing infrastructural constraints will further optimise BVAS performance, ensuring it delivers on its mandate to uphold electoral credibility and foster trust in Nigeria's democratic process. Based on the findings, the study recommends:

- i. The Independent National Electoral Commission (INEC) should provide comprehensive, hands-on training to election officials and ad-hoc staff on BVAS operations to minimise technical and operational errors during elections.
- ii. INEC should invest in upgrading BVAS infrastructure, including offline data storage capabilities and improved battery life, to ensure

efficiency in areas with poor network connectivity and limited power supply.

### REFERENCES

- Adewale, T. (2024). *BVAS and electoral integrity in Nigeria's 2023 general elections*. Abuja: National Democratic Institute.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Lipset, S. M. (1959). Some social requisites of democracy: Economic development and political legitimacy. *American Political Science Review*, 53(1), 69–105.
- Okoye, P. (2023). *Technological innovations and electoral credibility: A study of BVAS in subnational elections*. Enugu: University Press.
- Olaolu, K. (2024). *Operational challenges of BVAS in rural electoral contexts*. Lagos: Centre for Electoral Studies.
- Omodia, S. (2022). *Electoral technology and transparency in Nigeria: The promise of BVAS*. Ibadan: Spectrum Academic Publishing.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Yusuf, M., & Bala, A. (2023). *BVAS and electoral dispute reduction in Nigeria*. Kano: Democracy and Governance Research Institute.