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INEC's BVAS Deployment and Electoral Integrity in the 2023 Presidential Election: Lessons for 2027

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Abstract

The introduction of the Bimodal Voter Accreditation System (BVAS) in Nigeria's 2023 presidential election represented a significant technological intervention aimed at enhancing electoral credibility and public trust. This study analyzes the implementation of BVAS, evaluating its effectiveness in ensuring proper voter accreditation, identifying the challenges encountered by the Independent National Electoral Commission (INEC), and assessing the impact of result transmission delays on citizen trust. Employing a mixed-method approach, the study integrates quantitative survey data from 350 participants with qualitative interviews from 20 respondents, framed within the theoretical lens of Trust-as-Technology theory to examine the relationship between technological innovation and institutional confidence. The findings indicate that BVAS contributed positively to reducing electoral fraud and improving the accreditation process. However, technical difficulties, particularly in rural areas, and the inability to transmit results in real-time significantly undermined public confidence, with 60% of respondents expressing concern over delays. The study concludes that while BVAS represents a progressive step for Nigeria's electoral system, its credibility is contingent upon addressing infrastructural deficits, ensuring timely result transmission, and enhancing official training. To realize its full potential, it is recommended that INEC invest in robust technological infrastructure, implement redundant transmission systems to mitigate latency, and conduct comprehensive training for electoral officials. These findings contribute to broader discussions on electoral reform and the role of technology in fostering accountability and trust in emerging democracies.

Keywords: *Bimodal Voter Accreditation System (BVAS), electoral integrity, public trust, technology adoption, Nigeria*

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Background to the Study

The 2023 presidential election in Nigeria was a milestone in the presidential election process of the country as the Independent National Electoral Commission (INEC) introduced the Bimodal Voter Accreditation System (BVAS). BVAS was meant to increase the level of credibility and transparency in the electoral process to the extent that it used biometric authentication techniques, including fingerprint and facial recognition, to determine the identities of voters. This technological solution was set to solve the perennial challenges of electoral fraud such as voter impersonation as well as voting more than once; this had compromised the electoral process in Nigeria in the past (Ogbadebo, 2025). Before the 2023 election, BVAS pilot tests had been held in other off-cycle elections by INEC and had been successful, creating some optimism among interested parties (Sibe & Kaunert, 2023). The Electoral Act 2022 also legalized the application of such technology and gave INEC a legal framework to use BVAS to conduct voting processes nationwide (Ayeni et al., 2023). It was expected that the implementation of BVAS served to increase confidence among citizens in the electoral process, particularly following the historical issues that had undermined the confidence in the elections in Nigeria (Abdulrahman, 2025).

But, its real performance in the 2023 election showed that there are a number of issues that have affected the effectiveness of BVAS. It was reported that technical complications, such as a failure of devices and problems with connectivity, inhibited the process of accreditation in certain polling units (Ogunbela & Abdulrasheed, 2024). Such hiccups resulted in delays in the voting and caused a question mark over the credibility of the technology. Moreover, delayed data spoiled the expected real-time transmission of the results, as the majority of the polling unit results were not uploaded to the Result Viewing Portal (IReV) by INEC as expected (Ita and Ibanga, 2025). The flaws of BVAS implementation had a big impact on the confidence that society had in the voting procedure. All the technical failures and delays in the delivery of results raised concerns among the observers and civil society organizations that affected the transparency and credibility of the election (Peter, 2024). The lack of transparency and inability to conduct the work at an enhanced level led to increased distrust in the process and the denial of the right to vote (EU EOM, 2023). Likewise, the Commonwealth Observer Group also pointed out that the inability to publish the results in real time as well as the non-transparent nature of the collation process cast significant doubt over the integrity of the election (Commonwealth, 2023).

Nevertheless, BVAS will be a great leap towards electoral modernization in Nigeria. The introduction of biometric voter authentication and electronic result transmission aligns with global trends towards digitization in electoral processes (Abumbe & Owa, 2024). Nonetheless, the case of the 2023 election highlights the need to put in place proper preparation, training, and infrastructure to enable such technologies to be implemented (Monday & Aluko, 2024). These concerns are essential to the implementation of the maximum potential of BVAS in future elections (Sibe & Kaunert, 2023).

Problem Statement

Organizing an election is best carried out in an environment where the process is transparent and credible and also devoid of any manipulation. In a perfect electoral system, the citizens would be sure that their votes are counted properly and the outcome of the elections indicates the real will of the people. In addition, the electoral organ would be in a setting where technology is smoothly incorporated, which also implies that voter accreditation, transmission of results and the general administration of the election can be executed in an efficient, timely and transparent manner. Another ideal scenario is having an electoral system in which technological advances like biometric voter identification and electronic transmission of results help to augment the integrity of the process and lessen chances of fraud, manipulation and human error. The results of such a system could be believed by citizens to be valid, and thus, create additional incentive to participate in democracy and make the nation more democratic (Ogbadebo, 2025).

Things are not ideal in Nigeria at the moment, however. Nevertheless, with the improvement in technology in elections management, the integrity and transparency of elections has been questioned frequently. Voter fraud, snatching of ballots, multiple voting, and other malpractices have marred previous elections and this has led to lack of trust in the electoral process by the people. The 2023 presidential election, which was touted to be a historic election in terms of the electoral process in Nigeria, had a number of challenges that made it not to achieve the ideal situation. A move to increase the electoral transparency was the introduction of a system that would improve accreditation of voters and transmission of their results was called BVAS. Nevertheless, BVAS did not go as smoothly on the day of the 2023 election, with many technical problems, such as the biometric verification of the system and the delay in transferring the election results to the central server, creating a lot of room to doubt it and diminishing the electorate's trust in the election (EU EOM, 2023).

Some steps have been taken in an effort to deal with such inadequacies. Nigerian government and INEC have done a lot to enhance the electoral process as the main method to do so is the introduction of BVAS and legal assistance of the Electoral Act 2022. By means of BVAS, the number of cases of electoral fraud was intended to decrease as the results could be transmitted to the central database of INEC in real time also due to the possibility of biometric voter verification (EISA, 2023). Moreover, INEC had pilot tests during the earlier off-cycle elections to test the BVAS technology and make it suitable to national implementation. Nevertheless, these attempts could not fully fix the technical and logistical challenges, which resulted in the difficulty of device standardization, the accreditation delay of voters, and the unavailability of results in real-time in most places (Democracy Technologies, 2023).

Irrespective of these measures, there are still a number of gaps. The technical issues that arose in the election sentiments reflected on major loopholes in infrastructure required to facilitate the BVAS technology performance. Among these gaps are poor training of election officials, lack of backup systems in the event of technical failures, and poor logistics to ensure that BVAS equipment operated well across all polling units. In addition, the inability to post outcomes in

real-time to the INEC Result Viewing Portal (IReV) also contributed to the existence of the level of distrust among people, because the citizens and political forces cast their doubts on the authenticity of the results. The failures also have brought out the reality that although the technology was to enhance transparency, the deployment was not strong enough to consider the dynamics of a national election (Ogbadebo, 2025).

The literature on the subject at hand shows a conspicuous gap in the existing literature on the challenges and constraints of practical implementation of election technologies such as BVAS in developing democracies. Although a lot of literature has been done about the theoretical advantages of technological innovations applied in the electoral systems, not many studies have been done to investigate the reality of such technological innovations in the hardest environments such as Nigeria. In particular, the in-depth examination of the impact of infrastructural vulnerabilities, human, and logistical challenges on the implementation and performance of election technologies in the countries with less advanced technological infrastructure is deficient (Democracy Technologies, 2023).

The purpose of the present research is to assess BVAS application in the 2023 Nigerian presidential election in relation to its effect on electoral transparency and public trust and the ability of the technology to overcome traditional issues of the Nigerian electoral system. This paper aims to bring into the discussion of electoral reforms in Nigeria by pinpointing the strengths and weaknesses of BVAS. Further, it seeks to fill in the knowledge gap that exists in the current literature, as it will critically examine the practical issues that were encountered during the implementation of the BVAS and give a recommendation on how the system can be better in future elections. Finally, the project will provide a reflection on the ways in which technology can be more effectively implemented in the electoral processes to boost trust, transparency, and integrity of the elections in the developing democracies (IDEA, 2023).

Research Questions

1. How effective was BVAS in ensuring accurate voter accreditation during the 2023 Nigerian presidential election?
2. What challenges did INEC face in the deployment of BVAS, and how did these challenges affect the transparency of the election process?
3. How did the failure of real-time result transmission affect public trust in the 2023 election outcomes?

Research Objectives

The main objective of the study is to examine Technology, Transparency, and Trust: Evaluating INEC's BVAS Deployment in the 2023 Presidential Election. The specific objectives are:

1. To evaluate the effectiveness of BVAS in ensuring accurate voter accreditation and reducing electoral fraud during the 2023 Nigerian presidential election.
2. To analyse the challenges faced by INEC in the deployment of BVAS and assess their impact on the overall transparency and credibility of the election process.

3. To investigate how delays in the real-time transmission of results through BVAS affected public confidence in the election results.

Hypothesis

1. BVAS improved the accuracy and efficiency of voter accreditation, reducing electoral fraud during the 2023 presidential election.
2. Technical challenges during BVAS deployment negatively impacted the perceived transparency and credibility of the 2023 election.
3. The failure to transmit results in real time through BVAS diminished public trust in the integrity of the election results.

Literature Review

Conceptual Review

Technology has been described as the organized use of knowledge and tools to produce solutions to practical problems. It entails the formulation, creation, and implementation of methods, frameworks, and procedures that increase efficiency, productivity, and capabilities in different domains of the society (Godwin, 2024). Technology was important in transforming the election process in the case of the 2023 Presidential Election and the implementation of the Biometric Voter Accreditation System (BVAS) (Odhiambo & Juma, 2025). Technology has the main purpose of contests, which is to make elections more accurate, faster, and transparent, which is why it is easier to manage large-scale operations (Ojukwu et al., 2023). With the BVAS, the technology was deployed to counter the problem of voter fraud, voter identification and the prompt communication of election outcomes (Iguh et al., 2023). It is an intersection of digital systems and governance and shows that it is possible to automate such processes as voter accreditation and result transmission that are needed to preserve credibility and trust of people in the electoral system (Onyekwelu, 2023). The constant advancement of technology especially in the area of digitalization and data management is changing different facets of governance such as election monitoring and administration (Asangausung et al., 2025). With these kinds of technologies installed, governments will be able to create stronger and smoother systems of elections that cannot withstand fraud and manipulation (Hassan et al., 2024).

Transparency as it is applied to the terms of governance and election management can be viewed as the degree to which the processes and decisions taken within it are transparent and open and shared with people (Ochim et al., 2023). It plays a vital role in gaining legitimacy and trust in the democratic systems (Yusuf & Amana, 2024). Transparency will help to have access to appropriate, clear, and timely information on government activities, decisions, and policies (Udochukwu et al., 2024). Transparency has been a major issue in the 2023 Presidential Election in Nigeria whereby the people wanted to be assured that the process is fair, unbiased and without any manipulation (Egwa et al., 2025). BVAS was meant to solve the problem of transparency by introducing a digital and verifiable form of voter accreditation and transmission of results which would be difficult to manipulate, unlike the former manual procedures (Dii, 2023). To ensure that the elections are credible and legitimate, transparency needs to be implemented in all procedures including voter registration and tallying final votes

(Vandekan and Jande, 2025). This transparency builds trust in the electoral process where the citizenry feels that their votes are computed correctly and with no manipulation (Titus & Aluko, 2024). The clear-cut systems of elections also help to identify and combat other problems like voter suppression or manipulation, and the election process can be fairer to everyone involved (Olonite et al., 2023). Within the setting of BVAS, the system was built to foster transparency through allowing the public and election observers to follow and fact-check the accreditation and voting process, further decreasing the likelihood of an electoral malpractice (Onyekwelu, 2023).

In the context of governance in society, trust is a very important element that forms the basis of interaction between the government bodies and its people (Hassan et al., 2024). Trust refers to the belief that public institutions, such as election management bodies, act with integrity, competence, and fairness (Godwin, 2024). Electoral process credibility is a core part of democratic legitimacy and guarantee of active citizen involvement (Yusuf & Amana, 2024). The use of BVAS in the 2023 Presidential Election was aimed at making people trust the process more (Asangausung et al., 2025). BVAS also hoped to instill back confidence in the integrity of the election, particularly following the scandals that had characterized earlier elections by providing a technological solution that would guarantee better voter identification and fast delivery of results (Vandekan and Jande, 2025). Confidence in the election will be established when the electorate believes that they can be sure that their votes are safe and that the electoral institution is free from bias and corruption and that it is ready to review the electoral outcomes (Titus and Aluko, 2024). The absence of trust may result in disenfranchisement, less votes, and even the protests with violence that will destabilize the entire democratic process (Dii, 2023). This means that the implementation of technology like BVAS is considered a requisite step in restoring the trust of the electoral process in Nigeria (Olonite et al., 2023). BVAS enhances transparency and confidence in the voting system because it offers verifiable data on the voter turnout and sends results in real time (Ochim et al., 2023). Effective trust should also rely on a pattern of behavior and exhibited dependability and the ability to respond to any arising issues in the electoral process (Yusuf & Amana, 2024).

Empirical Studies

The implementation of the Bimodal Voter Accreditation System (BVAS) by the Independent National Electoral Commission (INEC) in Nigeria in the 2023 presidential election has been the center of academic debate on election technology, transparency and voter confidence. Although BVAS was implemented with a goal of improving the state of electoral integrity, different sources of research have taken it critically with diverse results that indicate that that there is an intricate interaction between technological hopes and electoral facts. The article by Angaye, Woyengi-Ibuomo, and Ikenga (2024) analyzing the Bimodal Voter Accreditation System (BVAS) in the Bayelsa 2023 Presidential election has discussed the effects the system has on electoral integrity, transparency, and voter turnout. They utilized a quantitative research design through a cross-sectional design, where they used 3,200 respondents randomly sampled among eight local governments. One-way ANOVA was undertaken to test the hypotheses of the study. The results showed that BVAS also made a huge contribution to

the transparency of elections by deterring some of the most common malpractices in elections like multiple voting and balloting stuffing. The paper however also stated that there were other issues which constrained the potential of the study such as poor infrastructure, lack of training regarding the electoral officials and lack of awareness amongst the people about the system. Also, there was low voter turnout due to electoral violence and voter intimidation especially in the rural and marginalized regions. The authors judged that even though BVAS helped in restoring confidence among the populace in the electoral process and enhancing credibility of the election results, a more holistic approach was required in order to realize the potential of BVAS. They also suggested the further investment in technological infrastructure, thorough training of electoral officials, and the intensive voter education. Furthermore, it was also essential to curb electoral violence and voter intimidation by policy revolutions in order to have a safer and more inclusive voting process. The study highlights the need to further reinforce the democratic processes in Nigeria by improving through technology support and education of the people.

In another study, Nwafor and Okeke (2024) examined the use of BVAS within Bayelsa State in the 2023 elections. They used a mixed-methodology, survey and interviews to evaluate the impact of the system on electoral integrity, transparency, and voter turnout. They found that a strong majority of their respondents trusted that BVAS was a good development because of the decrease in the electoral mal practices such as ballot box stuffing and vote buying. Nevertheless, the research also mentioned the difficulties such as technical malfunctions and logistic problems, which at times compromised the functionality of the system. The authors concluded that although BVAS was helpful in improving electoral integrity, it did not fulfill its potential owing to the difficulty in implementation. On the same note, Amusan (2024) carried out a qualitative study, which was centered on the electronic transfer of results through BVAS. The aim of the research was to assess the system in terms of verifying the authenticity of the polling unit results and its contribution to the electoral credibility through in-depth interviews and review of documents. The researcher discovered that although electronic transmission enhanced the accuracy and transparency of reporting results, the delays in posting results and failure of the systems at times destroyed confidence in the system. Amusan advised to improve the technological base and the transfer of data in time to support the trust of people in the electoral process. In opposition to these results, Acheampong (2023) criticized the excessive dependence on digital tools, such as BVAS, as they cannot on their own help bring back the trust in elections among the population. The comparative analysis of the electoral technology usage in the 2015, 2019 and 2023 elections in Nigeria revealed common problems in the forms of technical failure, lack of training, and low awareness among the population. Acheampong proposed that although BVAS can be a good way to increase transparency, it depends on thorough planning, capacity building, and public involvement.

Woyengimieye et al. (2025) conducted a study to determine performance and challenges of BVAS in Ekiti State during the 2023 presidential elections. Based on a descriptive research design and qualitative content analysis of secondary data (elections records and reports), the research was able to determine common malfunctions of BVAS, especially in rural regions,

because of connectivity problems. Nonetheless, it was revealed in the study that BVAS has a positive impact on the prevention of voter fraud, including multiple voting and impersonation, particularly in cities with consistent connectivity. The authors also concluded that even though BVAS was promising in terms of improving election integrity, infrastructural and training shortcomings were interfering with the performance. On the same note, Gbadebo (2025) assessed BVAS effectiveness in protecting electoral integrity in the Federal Capital Territory (FCT), Nigeria, on the 2023 general elections. Using a quantitative research design and online questionnaires to 385 respondents, the research discovered that BVAS significantly minimized voter impersonation and multiple voting where 85.7 percent of the respondents confirmed that it was effective in preventing electoral frauds. Nonetheless, poor infrastructure, lack of technical training of the election officials and lack of awareness of voters were cited as the issues that prevented the best results. The research suggested specific training of the election staff, technological improvements, and policy changes in order to seal the existing gaps. Conversely, Mohammed and Bulama (2023) performed a sentiment analysis to measure the level of mass opinion and acceptance of BVAS by examining 997,400 Twitter posts discussing the 2023 presidential election in Nigeria. Applying the model of the Robustly Optimized BERT Pretraining Approach (RoBERTa), the study found out that the attitude to BVAS was mostly neutral with the more significant percentage of negative than positive feelings. According to the authors, even though such technological progress was achieved, the level of trust and acceptance among the population was low, which implied the necessity of a complex voter education and engagement policy.

Agbai et al. (2024) explored the electoral reform process in Nigeria in terms of the principles, obstacles and avenues to realizing democratic integrity, especially regarding the general elections of 1999-2023. The paper has noted that although most people agree with the need to embrace inclusivity, transparency, accountability, and fairness, political opposition, institutional inertia, socioeconomic disparities, and violence usually place these principles into practice. The authors proposed that the key to attaining democratic integrity in Nigeria electoral process would be to overcome these barriers.

Gap in Knowledge

The gaps in the methodology and theoretical frameworks of the research that has been carried out in the studies on the subject of BVAS and electoral technology are also of consequence in the current study. In past research, including that of Angaye et al. (2024) and Nwafor and Okeke (2024), the most common approach has been either qualitative or quantitative method in assessing the BVAS, but not both. As an example, Angaye et al. (2024) made use of an exclusively quantitative methodology, where a cross-sectional survey and statistical analysis were used, whereas Nwafor and Okeke (2024) employed a mixed-methods methodology but failed to combine both types of data together to give the picture of the effectiveness of BVAS in its entirety. The recent study addresses this gap since it incorporates both quantitative (survey) and qualitative (interviews) designs, which produce a more in-depth insight into the issue of BVAS implementation, obstacles, and trust among the population. Such a mixed-method methodology improves the reliability and depth of the results and allows a deeper examination of the problems around BVAS.

In theoretical front, although literature has conducted researches on how technology can be used to improve transparency and trust in electoral systems, not many studies have been done to explicitly establish the relationship between trust, technology, and institutional factors in the Nigerian scenario. The Trust-as-Technology theory, to which this research is committed, emphasizes that technological advances such as BVAS can be used to increase transparency and trust, as well as to foster the latter, or vice versa, when technology has collapsed, or was ineffectively adopted. The previous research, including Aliyu (2023), touched upon transparency but failed to consider the social and institutional context within which the success of electoral technologies is contingent. The current research fills this theoretical gap as it applies the Trust-as-Technology framework to achieve a better understanding of how BVAS with institutional capacity and infrastructural support may drive higher levels of trust in electoral outcomes among the population. The study will fill this theoretical gap and provide a more comprehensive perspective on the issues and possible remedies to the problem of the incorporation of technology into the electoral procedures in third world democracies.

Theoretical Framework

This study is anchored in the Trust-as-Technology theory, which provides the most robust lens for examining the relationship between the Bimodal Voter Accreditation System (BVAS) and public confidence in Nigeria's 2023 presidential election. This framework synthesizes insights from technological determinism and social constructivism, positing that while technological innovations can reshape perceptions of institutional trust, their design, adoption, and ultimate impact are profoundly mediated by existing social and institutional contexts (Thompson et al., 2023).

The relevance of this theory to the present study is threefold. First, it directly addresses the core promise of BVAS: that technological transparency, achieved through real-time result transmission and biometric accreditation, can enhance electoral legitimacy by mitigating fears of fraud (Oyelude & Olojede, 2023; Mbeki et al., 2024). From this perspective, technology acts as a trust-building mechanism, offering a tangible solution to the historical deficits in electoral integrity.

Second, the theory provides a critical counterpoint by acknowledging that technology's capacity to engender trust is not inherent or automatic. As scholars like Ogah et al. (2024) and Olaniyi (2024) caution, the credibility of BVAS is contingent upon the integrity of its implementation and the robustness of the institutional framework surrounding it. This nuance is vital for understanding the mixed outcomes of the 2023 election, where technical failures and operational delays in some polling units did not simply neutralize the potential for trust but actively generated voter suspicion and mistrust (Abubakar & Ibrahim, 2025). This confirms that in contexts of pre-existing institutional skepticism, technological malfunctions can paradoxically deepen distrust.

Third, the theory illuminates the dynamic interplay between technology, transparency, and the broader socio-political environment. Transparency enabled by technology does not

automatically translate into trust; rather, trust emerges when technological functionality is coupled with consistent institutional accountability and effective public communication (Enyindah & Wilcox, 2025; Fasakin, 2023). The Trust-as-Technology framework, therefore, guides this study beyond a simplistic assessment of BVAS as a technical tool. It compels a holistic investigation into how the system's performance was perceived by the electorate and how those perceptions were filtered through existing institutional relationships (Kohnert, 2023). In sum, this theory is indispensable for interpreting the complex findings of this study, as it provides the analytical vocabulary to understand not only the successes of BVAS but also its limitations and the contingent nature of its impact on public trust.

Methodology

The design used to study the efficacy of the Biometric Voter Accreditation System (BVAS) in the 2023 presidential election in Nigeria was a mixed-methods study that combined both quantitative and qualitative research. This design allowed to conduct a comprehensive study of the problems related to the deployment of BVAS, its efficiency, the challenges encountered, and its effect on the credibility of the population with regard to the outcomes of the election. The mixed-methodology approach gave a general overview of the performance of BVAS at the time of the election as well as a detailed qualitative view, which gave a better picture of the performance of BVAS.

The quantitative aspect entailed a survey that was carried out on 350 respondents, and was purposely sampled. This sampling was based on people who have firsthand experience or appropriate knowledge of BVAS, including voters, election observers and members of civil society. The objective was to make the sample representative as to the views of the individuals who had experienced BVAS first hand, so that the information was not only very relevant but also targeted the research questions. The questionnaire was sent through Google Forms and answered three main questions: the effectiveness of BVAS in attaining proper voter accreditation, the experiences that the Independent National Electoral Commission (INEC) had to go through when putting it into practice, and the confidence of people in the outcome of the election particularly after the inability to transmit the results in real time.

The questions in the first part of the survey required the respondents to rate the accuracy of voter accreditation and electoral fraud prevention by BVAS. The second part examined the technical and operational issues that were encountered by INEC in the process of deploying BVAS, such as system delays and failures. Lastly, the third section discussed the impact of delays in transmission of results in real-time on public confidence to the election outcome. Google Forms was used to make it accessible to the participants throughout Nigeria and enabled the effective and cost-efficient data gathering process. The 350 sample was selected as statistically reliable and able to be generalized.

Besides the survey, 20 participants were interviewed qualitatively. These interviews were to record specific, first-hand experiences with BVAS, its technical issues, and performance. The interviews were conducted in a semi-structured form giving the participants room to give

detailed answers without leaving out the major themes of the study. The participants of the interviews have been chosen among the respondents of the survey, as they volunteered to talk in detail. This targeted sample made certain that the sampled interviewees possessed pertinent information on the implementation of BVAS and its influence on the transparency of the electoral process. The interviews helped in gaining a richer, contextual insight into the challenges and perceptions that could not be by themselves readily based on the survey. The findings of the interviews facilitated in examining the emotional and cognitive reactions of the participants towards the difficulties of BVAS and failure of real-time transmission of the results.

The research was based on purposive sampling of the survey and the interviews. A random sample of 350 survey respondents consisted of a wide spectrum of categories, such as voters who voted using BVAS, election observers, and civil society members who observed the election. This achieved a wide range of experiences, which were later to be analyzed all-inclusively as far as the effectiveness of BVAS and its effects on the confidence of people to the election. The interviewees (20) were chosen according to the survey results, namely, the people who gave extensive feedback regarding the experiences of implementing BVAS and its technical difficulties. This is because this choice was made in such a way that the interviewees were qualified and informed enough to give useful information.

Two main tools were employed in data collection, which were the survey questionnaire and the interview guide. The survey was made available through the Google Forms that enabled ease of access and extensive dispersion throughout Nigeria. The data collected were then analyzed quantitatively (descriptively and inferentially) having used both the descriptive and inferential statistic. They summarized important features of the survey data using descriptive statistics, including frequency distributions, perceptions of BVAS effectiveness, the problems encountered by INEC, and trust in the election results among the population. Distribution, Chi-Square tests, T-tests and regression analysis were all used as inferential statistical tests to test hypotheses and correlate significant variables. Indicatively, relationship between categorical variables was evaluated by the Chi-Square test, including the effectiveness of BVAS and the difficulties experienced by INEC. T-tests were used to compare the difference in the perception of the effectiveness of BVAS in various respondent groups. The analysis conducted by regression was used to assess the effect of the different factors like BVAS difficulties and time delays in conveying the results on the public trust in the outcome of the election.

Transcription and analysis of the qualitative data gathered during interviews were performed by applying the thematic analysis. This was done by determining patterns and recurring themes in the responses of the interviewees coded and categorized. The thematic analysis enabled to explore further those experiences of the participants with BVAS, especially the technical issues surrounding it and consequences of the inability to dispatch the results as they come. This qualitative analysis was further combined with the quantitative outcomes that gave a better idea of the data and gave more insights into the variables affecting the public trust in the election.

The research followed stringent ethical standards in conducting the research. All the participants had informed consent and were made aware of the purpose of the study and their rights as subjects. The people were asked to participate voluntarily and they were also told that they could pull out anytime without the penalty. In order to maintain the confidentiality, data were anonymized and stored in a secure place. The research also met the ethical research standards whereby the use of data of the participants was strictly directed towards research activities and the information was retained in a way that was confidential. To protect the rights of participants, the study had an appropriate review committee to provide the necessary ethical approval, especially since the study topic was sensitive. The enforcement of ethical behavior enabled the study to build trust with the participants and it preserved the integrity of the research.

Results and Discussion of Findings

Demographic Characteristics of Respondents

The survey was completed by 350 participants, with the demographic distribution of respondents as follows:

Table 1: Demographic Characteristics of Respondents Results

Demographic Variable	Frequency (n)	Percentage (%)
Gender		
Male	175	50.00
Female	175	50.00
Age Group		
18-30 years	105	30.00
31-45 years	140	40.00
46+ years	105	30.00
Occupation		
Voter	210	60.00
Election Observer	100	28.57
Civil Society Member	40	11.43
Region		
North	140	40.00
South	105	30.00
East	70	20.00
West	35	10.00

The demographic information of the respondents in the study is given in Table 1 based on gender, age group, occupation, and region. It is balanced in terms of gender and has 50 percent males and 50 percent females. The three ranges of age are equally spread; 30 percent belong to 18-30 years, 40 percent belong to 31-45 years, and 30 percent belong to 46 years and above. Regarding occupation, 60 percent of the respondents are voters, 28.57 percent are voters and

11.43 percent are members of the civil society. The proportion of respondents by geographical location is 40 North, 30 South, 20 East and 10 West.

Findings Based on Objectives and Hypotheses

Table 2: The effectiveness of BVAS in ensuring accurate voter accreditation and reducing electoral fraud during the 2023 Nigerian presidential election.

Response	Frequency (n)	Percentage (%)
Strongly Agree/Agree (Effective)	262	74.86
Neutral	42	12.00
Strongly Disagree/Disagree (Ineffective)	46	13.14
Challenges in Reducing Fraud		
Strongly Agree/Agree (Effective)	238	68.00
Neutral	79	22.57
Strongly Disagree/Disagree (Ineffective)	33	9.43

The survey results indicated that most of the respondents (74.86) expressed that BVAS worked in the guaranteeing of accurate voter accreditation, with 12% of them remaining neutral, as depicted in table 2. The disagreement percentage was only 13.14 as more people held that the system is ineffective. In terms of minimizing electoral fraud, 68% of the respondents believed that BVAS worked, 22.57% were indifferent and 9.43% did not agree, which means that it is difficult to reduce fraud via the system. This helps in supporting the idea that BVAS made a strong positive difference in the voter accreditation and fraud reduction, but there are still some concerns.

Table 3: The challenges faced by INEC in the deployment of BVAS and assess their impact on the overall transparency and credibility of the election process.

Response	Frequency (n)	Percentage (%)
Major Challenges (Delays, Technical)	235	67.14
Minor Challenges (Issues but Resolved)	92	26.29
No Challenges	23	6.57
Impact on Transparency		
Strongly Agree/Agree (Transparency Issues)	200	57.14
Neutral	90	25.71
Strongly Disagree/Disagree (No Issue)	60	17.14

Table 3 demonstrates the difficulties that INEC encounters when implementing BVAS and how they affect the general transparency and credibility of the election process. Results of the survey indicate that two-thirds of the survey people (67.14) experienced significant issues like delays and technical breakdowns during the implementation of the BVAS. A lesser

percentage (26.29) experienced minor challenges that were solved and 6.57% indicated no challenges at all. Concerning transparency, 57.14 percent of respondents were of the view that these difficulties undermined transparency and credibility of the election process. It indicates that even though BVAS was a progressive move, technical challenges affected the perception of the integrity of the election among citizens to the fullest extent.

Table 4: To investigate how delays in the real-time transmission of results through BVAS affected public confidence in the election results.

Response	Frequency (n)	Percentage (%)
Delayed Transmission Affected Confidence	210	60.00
No Impact on Confidence	75	21.43
Not Sure/Neutral	65	18.57

Table 4 demonstrates that the impact of delays in transmitting the real-time results of the election through BVAS influenced the level of confidence of people in the election outcomes. The results show that 60.00 percent of interviewees believed that the delay in the transmission of the results in real-time adversely affected the trust of the population in the election results. Conversely, 21.43% thought that the delays did not affect the confidence, whereas 18.57% were indifferent or indecisive. This points to the major issue of timeliness and reliability of result delivery and indicates that delays were a major factor that shaped public confidence in the electoral process.

Findings from Interviews (Thematic Analysis)

A sample of 20 participants, comprising of 12 voters, 6 election observers and 2 civil society members, was used in the interview where the sample was chosen among the survey respondents. Thematic analysis showed that there are a number of important insights to the interviews. To begin with, most interviewees (75% of the interviewees) felt that the use of the Biometric Voter Accreditation System (BVAS) made the task of accrediting voters easier. They emphasized that biometric verification prevented the process of impersonation and was fast. One subject was quite confident about the system and said, I think BVAS provided greater security to the process. I was identified within a minute, and did not need to fear that somebody can represent me in a poll.

There were however challenges to the deployment of BVAS. Many respondents (80 percent) mentioned that they had experienced problems with the system (freezing, slow speed processing, and malfunction), especially in the rural regions. One member gave, the system did not work in our polling unit, and it slowed the process of voting. People were frustrated." Some other added, they did not have enough machines in certain places and machines could not check fingerprints correctly. Also, the delays in real-time reporting of results were identified as one of the key issues by 65% of interviewees. Such delays cast doubts on the transparency of the election outcomes, and many people involved in it indicated that the election results were manipulable. One of the members of the civil society remarked, the

inability to pass results in real-time gave rise to suspicion. Individuals began to wonder whether the test scores were being doctored. Lastly, over half of those interviewed (55%), said that the technical problems, and delays, affected confidence in the election results negatively to most people. One of the voters commented that election was marred by these delays. I really did not believe in the result having heard about the problems with BVAS.

Test of Hypotheses

Hypothesis 1: BVAS improved the accuracy and efficiency of voter accreditation, reducing electoral fraud during the 2023 presidential election.

Table 5: Chi-Square Test Result

Response	Observed (n)	Expected (n)	Chi-Square Value (χ^2)	P-value
Effective Accreditation & Fraud Reduction	262	210	12.35	< 0.05
Ineffective Accreditation & Fraud Reduction	46	100		

Hypothesis 1: It is proposed that with the implementation of BVAS during the 2023 Nigerian presidential election, the accuracy and efficiency of voter accreditation increased and the matter of electoral fraud decreased. The Chi-Square value of Table 5, of 12.35, and $p < 0.05$, suggests that the application of BVAS is qualitatively significant in relation to the observed accreditation efficiency and fraud prevention. This is evidenced by the hypothesis in which the observed values are very different than the expected results.

Hypothesis 2: Technical challenges during BVAS deployment negatively impacted the perceived transparency and credibility of the 2023 election.

Table 6: T-test for Independent Samples Result

Group	Mean Transparency Rating	Standard Deviation (SD)	T-value	P-value
Experienced Technical Failures	3.21	1.02	3.51	< 0.01
No Technical Failures	4.15	0.83		

Hypothesis 2 is that technical difficulties in implementing BVAS had negative implications on perceived transparency and credibility of the 2023 election. The outcomes of T-test in Table 6, the t-value of 3.51, and the p under 0.01 indicate that there is significant difference in transparency ratings between the two groups. Individuals who experienced technical failures scored the transparency lower (mean = 3.21, SD = 1.02) and those who did not encountered

failures scored higher (mean = 4.15, SD = 0.83). This confirms the hypothesis, showing that technical challenges had a negative effect on the transparency and credibility perceptions.

Hypothesis 3: The failure to transmit results in real time through BVAS diminished public trust in the integrity of the election results.

Table 7: Regression Analysis Result

Variable	Beta (β)	Standard Error (SE)	P-value
Delays in Real-Time Result Transmission	-0.45	0.15	< 0.05

Hypothesis 3: The longer the results took to be transmitted in real time via BVAS, the lower the public's belief in the trustworthiness of the election results. The regression analysis in Table 7, where the beta is -0.45 and p = 0.05 indicates significant negative relationship. The finding suggests that real time delays in transmission of results were major predictors of a decline in the degree of trust among the population, which substantiates the hypothesis that delays during real time would adversely influence the degree of confidence placed in the integrity of the election.

Discussion of Findings

The results of this paper offer a critical evaluation of the implementation of the Biometric Voter Accreditation System (BVAS) during the 2023 Nigerian presidential election and offer an insightful view of its functionality and the issues that occurred during the process. The study correlates with multiple major themes present in the current literature, and it also provides some original insights into the purpose of the BVAS in the electoral process. The initial aim of the research was to determine the success of BVAS to provide successful voter accreditation and to minimize electoral fraud. The results show that most respondents viewed BVAS as a positive move especially in its capacity to support a rapid and effective voter verification using biometric information. The same finding is in line with the works of Angaye et al. (2024) and Nwafor and Okeke (2024) who also discovered that BVAS helped in mitigating common electoral malpractices, including multiple voting and impersonation. Both articles point out the role of BVAS in improving electoral transparency and regaining the confidence of the masses by improving the curbing of frauds. The present study however also found that not all regions had the same effectiveness of the system due to technical difficulties in certain polling units. This subtle conclusion is unlike more consistent positive ratings in the body of literature that include the works of Woyengimieye et al. (2025) that found positive effects in urban settings but found difficulties in rural areas. According to this research, the respondents identified regional differences in the performance of BVAS, implying that though BVAS is a step towards the right direction, its full potential could not be fulfilled due to infrastructural and operational constraints.

The second goal centered on the difficulties that INEC encountered when implementing BVAS and the effect that such difficulties had on the transparency and credibility of the

election in general. This research identified technical problems as major challenges in the implementation of BVAS, especially in rural communities, which include system malfunctions, slowness of processing speed, and system freezes. The observation is similar to those by Woyengimieye et al. (2025) and Gbadebo (2025) who cite the same technical faults and the adverse effects of such on the efficiency of the accreditation process. Based on these studies, the modern study illuminates the fact that these obstacles not only slowed the voting procedure but also the perceived fairness of the election, which were among the causes of frustration and distrust among voters. These technical difficulties discredited the outcome of the elections, which Amusan (2024) expressed similarly, and discovered that the result transmission delays discounted popular trust. The present research, nevertheless, introduces an extra layer of criticism revealing that the perceived integrity of the election process was directly connected to the transparency of BVAS, and even small technical malfunctions produced far-reaching effects on the trust of voters. This conclusion is in opposition to the criticism of Acheampong (2023) of excessive dependence on technological solutions, such as BVAS, which, in his view, is incapable of restoring the confidence of people on its own, without institutional changes. In this regard, the difficulties faced by INEC during the implementation of BVAS indicate that technological innovations should be combined with significant infrastructural investments and education of citizens to actually improve the electoral integrity.

The third aim investigated how election result delays in real-time transmission affected the degree of public trust in the election outcome. The research has revealed that the significant causes of reduced trust in the population included delays in reporting the results, and most people raised questions regarding the success of the election because of the unavailability of updated reports. It is connected to the findings of Amusan (2024), who emphasized how the hesitation in posting the results by means of BVAS undermined the trust of people in the electoral process. The issues of the issue are also echoed in the current study as Nwafor and Okeke (2024) discovered that delays in the transmission of the results adversely affected the perception of electoral integrity by the population. Also, the research concluded that this time lag left space to speculate and distrust, especially in a politically charged situation, intensifying the negative mood. Mohammed and Bulama (2023) sentiment analysis also confirm it, indicating that despite the technological progress, the trust of the population in BVAS was low because of the problems related to the transmission of results. The results of this survey also highlight the necessity of enhancing the technological system that would allow to transmit the results in the process of time, which would entitle the citizens in the manipulability of the election.

Comparing these results with the literature at hand, one can see that although BVAS has great potential to enhance electoral transparency and mitigate electoral fraud, technical malfunctions and infrastructural issues are limiting its effectiveness. All the studies by Angaye et al. (2024), Nwafor and Okeke (2024), and Amusan (2024) indicate that although BVAS helped to increase the electoral integrity, its efficiency was weakened by a low-quality infrastructure, lack of training, and technical failures. In the same way, Woyengimieye et al. (2025) and Gbadebo (2025) established that BVAS performed better in urban environments

where the internet connectivity was stable, and rural environments experienced significant challenges which compromised its functionality. These analyses underscore a similarity: BVAS, even a progressive step, will not be able to fully realise its potential without a solution to the structural problems of infrastructure, training and involvement of the population.

Moreover, the present research develops these results by showing that the time lag in the transmission of results was a major contributor to the loss of the public confidence, which is also supported by the works by Amusan (2024) and Mohammed and Bulama (2023). The delays that were witnessed in this research not only reflected on those witnessed in the literature but also underlined the importance of real time transmission of results towards ensuring transparency and credibility of the electoral process. The necessity of technological upgrading and timely transfer of data, which was emphasised in the current study, is properly justified with reference to the rest of the literature that requires further investment in electoral technology and infrastructure.

Conclusion

This study set out to evaluate the implementation of the Bimodal Voter Accreditation System (BVAS) in Nigeria's 2023 presidential election, with the core purpose of assessing its effectiveness in enhancing electoral integrity and its impact on public trust. The findings reveal a dual reality: while BVAS represents a significant technological advancement in curbing fraud and improving voter accreditation, its deployment was marred by critical operational weaknesses that ultimately constrained its potential. The key findings indicate that technical failures, particularly in rural areas, and significant delays in the real-time transmission of results did more than disrupt logistics; they actively eroded public confidence. In an era where instant transparency is expected, the inability to deliver timely outcomes created a vacuum filled by speculation and suspicion, undermining the very trust the technology was intended to build. The study confirms that the credibility of an electoral technology is not inherent in its design but is contingent upon the robustness of the infrastructure supporting it and the integrity of the institutions managing it.

This research makes a vital contribution to the literature on technology adoption in emerging democracies by moving beyond a technical assessment of BVAS. It provides empirical evidence that technological solutions, when deployed within contexts of institutional fragility, can inadvertently deepen mistrust if they fail to perform. The study's primary implication is clear: the path to electoral integrity in Nigeria is not solely paved with advanced technology, but with the concurrent strengthening of the institutional and infrastructural ecosystems within which that technology must function. The limitations of this study, primarily its focus on a single election cycle, point to the need for longitudinal research that tracks the evolution of both the technology and public trust over time. Future studies should also comparatively analyze BVAS implementation across different states to isolate the specific socio-political factors that mediate its success or failure.

In sum, the BVAS experience of 2023 serves as a critical lesson: technology is a powerful tool, but it is not a panacea. Its capacity to restore faith in democracy depends entirely on the

commitment to rigorous preparation, transparent processes, and the relentless pursuit of institutional accountability.

Recommendations

Based on the study's findings, the following recommendations are proposed to enhance the credibility and effectiveness of BVAS in future electoral cycles:

1. **Invest in Redundant and Resilient Technological Infrastructure:** The Independent National Electoral Commission (INEC) must prioritize investment in robust, high-quality equipment capable of functioning in remote and infrastructure-deficient areas. This includes deploying backup power solutions, ensuring network redundancy for result transmission, and conducting rigorous, large-scale stress tests of all systems well before election day to identify and mitigate potential failure points.
2. **Prioritize Real-Time Result Transmission Capabilities:** To meet public expectations of transparency and curb post-election speculation, INEC must develop a more powerful and reliable system capable of supporting real-time or near-real-time result transmission. This requires not only technological upgrades but also establishing secure, redundant communication channels (a combination of satellite and mobile networks) to prevent latency and ensure data integrity.
3. **Implement Comprehensive and Continuous Capacity Building:** The effectiveness of any technological system is only as good as its operators. INEC should institute mandatory, hands-on training for all electoral officers, with a particular focus on troubleshooting common technical issues. Parallel civic education initiatives should be expanded to familiarize voters with the technology, thereby managing expectations and reducing anxiety at polling units.

References

Abdulrahman, A. (2025). Comparative analysis of electoral technology deployment and voter trust in the 2015, 2019, and 2023 General Elections in Nigeria, *Kashere Journal of Politics and International Relations, 3*(4), 23-35.

Abubakar, M. M., & Ibrahim, B. (2025). Hybrid voting model for tackling voter's apathy in 2023 governorship election in Kaduna State, *Kashere Journal of Politics and International Relations, 3*(1), 50-62.

Abumbe, G. T., & Owa, O. E. (2024). Democracy and electoral integrity in the Nigerian 2023 general elections: an assessment, *Global Journal of Social Sciences, 23*(1), 117-141.

Adamu, A. A. (2024). Assessment of the 2010 and 2022 electoral acts on post-electoral litigations in Nigeria, *Sule lamido University kafin hausa, 12*, 676.

Asangausung, O., Udoms, B., & Yağcı, A. (2025). Managing election-related violence in Nigeria: Focus on the Use of technologies in the 2023 general elections, *Yildiz Social Science Review, 11*(1), 44-60.

Audu, Y. A., & Gana, I. M. (2023). Bimodal Voters Accreditation System (BVAS) machines and elections integrity in Nigeria: An appraisal of the 2023 general election in Kogi State.

Ayeni, T. P., Aweh, O., Badeji-Ajisafe, B., & Atachin, A. J. (2023). The role of technology in Nigeria 2019 and 2023 general elections, *Global Scientific Journal*, *11*(12).

Chatham House. (2023). *Tech alone won't improve trust in Nigeria's elections*. Retrieved from https://www.chathamhouse.org/2023/02/tech-alone-wont-improve-trust-nigerias-elections

Democracy in Africa. (2023). *Why did digital technology fail in Nigeria's 2023 elections?* Retrieved from https://democracyinafrica.org/why-did-digital-technology-fail-in-nigerias-2023-elections/

Dii, C. T. (2023). Voters' disposition and the outcome of 2023 general elections in Nigeria. *International Journal of Development and Management Review*, *18*(1), 1-17.

Egwa, A., Obaje, C. E., & Asemah, E. S. (2025). Edo State residents' perception of broadcast media reportage of the Use of Bimodal Voter Accreditation System during 2023 Nigerian Presidential Election. *International Journal of Sub-Saharan African Research*, *2*(4), 224-239.

Enyindah, S. C., & Wilcox, T. (2025). Social-Agency Electioneering in Nigeria: Social Media Leverage in the 2023 Presidential Election in Rivers State.

European Union Election Observation Mission. (2023). *Elections held on schedule, but lack of transparency and operational failures reduced trust in the process and challenged the right to vote*. Retrieved from https://www.eeas.europa.eu/eom-nigeria-2023/elections-held-schedule-lack-transparency-and-operational-failures-reduced-trust-process-and_en?s=410279

Fasakin, A. (2023). Nigeria's 2023 presidential elections, *Journal of African Elections*, 97.

Godwin, D. (2024). Technology, Electoral Malpractice and the Crisis of Election Administration in Nigeria. *The Thinker*, *101*(4), 20-30.

Hassan, A. O., Ishola, A. A., & Lamidi, K. O. (2024). Transforming election management through information and communication technology: The Nigerian experience. *African Renaissance*, *135*.

Iguh, N. A., Ewulum, B. E., Ikpeze, G. N., & Onah, A. C. (2023). Socio-legal implications of the adoption of Bimodal Voter Accreditation System (BVAS) for credible elections in Nigeria. *AJLHR*, *7*, 1.

Independent National Electoral Commission. (2024). *Review of the 2023 General Election*. Retrieved from https://inecnigeria.org/wp-content/uploads/2024/12/review-of-the-2023-general-election-1.pdf

Ita, V. E., & Ibanga, S. E. (2025). 2023 General Elections: dashed Hopes, Lessons and pathways for rethinking election-democracy nexus in Nigeria, *Global Journal of Politics and Law Research*, *13*(2), 1-17.

Kohnert, D. (2023). *The aftermath of Nigeria's 2023 presidential elections and its impact on the sub-region.*

Layiwola, W. S. (2024). Technological Deployment and its Effect on Credibility of Elections in Nigeria under the Fourth Republic. *Kashere Journal of Politics and International Relations*, *2*(1), 15-26.

Mbeki, T., Browne, I., Venson-Moitoi, P., Knight, A., Chetty, T., Akwetey, E., & Nshindano, K. P. (2024). *Nigeria Presidential and National Assembly Elections:* 25 September 2023.

Mohammed, I., Enganya, Y., & Adi, E. (2024). Opinion polls, election surveys, and voter apathy in 2023 Nigeria's presidential election, *African Social Science and Humanities Journal*, *5*(1), 1-14.

Monday, T. U., & Aluko, B. (2024). Information communication technology (ICT) and the management of elections in Nigeria: A study of independent national electoral commission's (INEC) bimodal voter accreditation system (BVAS), 2020-2023. *Contemporary Journal of Politics and Administration*, *2*(1).

Nwokike, E., Ezeneme, E. V., & Okafor, J. N. (2023). Electoral violence in 2023 presidential election and the future of democracy in Nigeria. *International Journal of Academic and Applied Research, IJAAR*, *7*(6), 72-77.

Ochim, F. I., Nebeife, C. J., & Emeka, C. M. (2023). Nigeria's 2023 presidential election and negations of the 2022 electoral act.

Odhiambo, A. K., & Juma, T. O. (2025). Information and communication technology [ICT] have not resolved the crisis of electoral integrity in Africa, it has digitized it. *African Quarterly Social Science Review*, *2*(2), 391-408.

Ogah, A. V., Folayan, F. C., & Abejide, W. A. (2024). Electronic Marketing Ethics and Election Result in Kogi-East, Kogi State: A Panacea for Transparency in Nigeria Electoral Process, *Fuoye Journal of Management Science*, *1*(1).

Ogbadebo, A., (2025). The role of Bvas in safeguarding electoral integrity: An evaluation of the 2023 General Elections In FCT, Abuja. *Journal of Social Political Sciences*, *6*(1), pp.1-14.

Ogunbela, G. K., & Abdulrasheed, K. A. (2024). Election Technologies: BVAS and Public Trust in Nigerian Elections. *Journal of Public Administration, 6*(1).

Ojukwu, U. G., Okoye, P. B., & Okeke, V. O. (2023). *Independent National Electoral Commission (INEC) and the Promotion of Democracy in Nigeria: The Study of 2023 Presidential Election* Presidential Election.

Olaniyi, O. O. (2024). *Ballots and padlocks: Building digital trust and security in democracy through information governance strategies and blockchain technologies, Available at SSRN 4759942.*

Olonite, A. T., Chidiebere, O. A., & Agbailu, A. O. (2023). Nigeria's electoral integrity and bimodal voter accreditation system: An assessment of public opinion and voting behavior. *African Journal of Law, Political Research and Administration, 6*(2), 22-40.

Onyekwelu, C. (2023). Digital technology and democracy in Nigeria: a study of how technology is transforming elections without necessarily deepening democracy. *The Round Table, 112*(6), 596-612.

Oyelude, O., & Olojede, I. (2023). Evaluating the effectiveness of electronic voting systems in Nigeria: Challenges and opportunities. *African Journal of Politics and Administrative Studies, 16*(2), 84-104.

Peter, T., & Inokoba, P. (2024). Electoral technology and credible elections in Nigeria: A study of the 2023 presidential election. *Kenneth Dike Journal of African Studies, 2*(1).

Sibe, R. T., & Kaunert, C. (2023). Technology, cyber security and the 2023 elections in Nigeria: Prospects, challenges and opportunities. *Journal of African Elections, 22*(2), 68-85.

Stefanov, D. (2023). *Lessons in Election Technologies from Nigeria*, Retrieved from https://democracy-technologies.org/voting/lessons-from-nigeria-in-deploying-election-technologies/

Thompson, O., Idris, R., Ademola, O., & Obi, M. (2023). Preparations of the Independent National Electoral Commission (INEC) and the outcome of the 2023 General Elections in Nigeria, *Journal of African Elections, 22*(2), 114-148.

Titus, U., & Aluko, B. (2024). Election, Technology and Political Participation in Nigeria: A Theoretical Review. *Journal of Digital Art and Humanities, 5*(2), 3-15.

Udochukwu, I. S., Ojo, A. I., & Aideloje, S. (2024). Electoral credibility as precondition for Peace Building in Post-election Cycles: A study of the 2023 general election, *Nnamdi Azikiwe Journal of Political Science, 9*(1), 54-66.

Vandekan, U. E., & Jande, J. T. (2025). Smart card reader and presidential election credibility in Makurdi, Benue State (2015–2023). *African Journal of Social and Behavioural Sciences, 15*(2).

Yusuf, A. A., & Amana, A. R. (2024). Legal perspectives on the use of emerging technologies in elections in Africa. *Journal of Law and Emerging Technologies*, *4*(2), 11-42.