

**SMART CARD READER AND PRESIDENTIAL ELECTION
CREDIBILITY IN MAKURDI, BENUE STATE (2015 – 2023)**

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ABSTRACT: This study explores the impact of the Smart Card Reader (SCR) on the credibility of presidential elections in Makurdi Local Government, Benue State, in 2015, 2019 and 2023. The research objectives are to investigate whether the adoption of a SCR machine enhances credibility and to find out if the technical challenges that accompany the use of SCRs implicated in the electoral irregularities in the Presidential election in the Makurdi Local Government Area of Benue State, 2015-2023. The work made use of both the documentary and survey methods as means of data collection and time series as research design. Findings from the work show that voting at polling units this time was either equal to the accredited voters as captured by the SCR machine or less than the accredited voters, which was over 100% reduction in fraud in this area. This revealed that the adoption of the SCR reduced the rigging process by ad-hoc staff at the P-unit level who hitherto inflate figures with the use of Manual register. Also, there is a 100% reduction in double or multiple voting, which was the practice before the introduction of the SCR machine, as eligible voters were allowed to vote only once. Also, voters with fake PVCs were fished out by the SCR and prevented from voting. On the whole, our findings revealed that in all ramifications, the adoption of the SCR machine by INEC helped reduce irregularities in this election by over 95 percent. In conclusion, the paper recommends that voter education and technical training for election officials should be improved, and the INEC should transmit election results in real time to ensure credibility, efficiency, and transparency in future electoral cycles.

Keywords: Smart Card Reader (SCR), Election Credibility, Electoral Irregularities, Presidential Elections, Benue State

INTRODUCTION

In any democratic society, the credibility of elections is central to ensuring that the will of the people is genuinely reflected in the election results. Nigeria, a large and diverse country in West Africa, has had its share of electoral challenges, ranging from allegations of voter fraud and manipulation of results to logistical inefficiencies (Omotola, 2017). Despite the strides made in the democratisation process since the return to civilian rule in 1999, concerns about the fairness and credibility of elections remain widespread (Norris, 2014). The introduction of technology in the electoral process, particularly the use of the SCR by the Independent National Electoral Commission (INEC), is one such initiative aimed at addressing these concerns (Iyiola & Ojo, 2016).

The SCR was first introduced during the 2015 presidential election as a means of ensuring the credibility of voter accreditation and minimising voter fraud. Prior to the introduction of the SCR, election irregularities were rampant, with widespread accusations of voter impersonation, multiple voting, and other forms of electoral malpractice (Omotola, 2017). These issues had long undermined the public's trust in the electoral system, leading to scepticism and low voter turnout in many elections (Norris, 2014). The implementation of the SCR, which electronically verifies a voter's identity by scanning their Permanent Voter's Card (PVC) and matching it with INEC's database, was seen as a promising solution to these problems.

Makurdi, the capital of Benue State, presents a unique context for examining the impact of this technology on electoral credibility. Located in the middle-belt region of Nigeria, Makurdi is home to a diverse population with varying levels of access to technology and education. This urban-rural divide poses both opportunities and challenges for the successful deployment of the SCR. In Makurdi, the integration of this technology into the electoral process has had significant implications for both voter confidence and the overall credibility of presidential elections (Iyiola & Ojo, 2016).

In the lead-up to the 2015 election, many Nigerians were hopeful that the introduction of the SCR would curb the electoral fraud that had plagued previous elections. However, while the system was viewed as a step in the right direction, it was not without its challenges. In some parts of the country, including Makurdi, there were reports of technical failures, long delays in the accreditation process, and confusion among voters. This raised important questions about the effectiveness of the technology and its ability to address the credibility issues in Nigerian elections fully (Van Ham & Bachtler, 2015).

In the years that followed, INEC continued to refine and improve the use of SCR, with the hope of building public trust in the electoral process. The 2019 and 2023 presidential elections saw refinements in the system, including better training for electoral officers, improved hardware, and a more robust database for voter verification. However, questions remained about whether these improvements were enough to resolve the issues that plagued the previous elections. The credibility of the 2023 election, for instance, was still questioned by some stakeholders, despite the continued use of the SCR and other technological innovations, such as the Bimodal Voter Accreditation System (BVAS; Iyiola & Ojo, 2016).

Statement of the Problem

There has been no single presidential election in Nigeria that electoral irregularities such as snatching of ballot papers, over voting at polling units, mutilations of results, destruction of electoral materials and in most cases total breakdown of law and order preventing voters from casting votes for their preferred candidates and in Makurdi the Benue state capital, all elections witnessed all these malpractices from all political parties in their area of control with the intention to capture power. Given the above situation, this work states this thesis statement;

1. The introduction of the SCR in Nigeria's electoral process has revolutionised the way elections are conducted, aiming to improve transparency, reduce electoral fraud, and ensure

the credibility of election results. This study explores the role of the SCR in enhancing the credibility of the presidential elections in Makurdi, Benue State, with a focus on its implementation, challenges, and impact on the electorate's confidence in the electoral system.

2. It examines how the SCR contributes to voter authentication, minimises electoral malpractice such as ballot stuffing and impersonation, and how its effectiveness influences the perception of election credibility. By analysing the deployment and use of the SCR in Makurdi during the 2015, 2019 and 2023 presidential elections, this research seeks to assess whether its inclusion has positively impacted voter turnout, trust in election results, and the general integrity of the electoral process in Benue State.
3. The integration of SCR in the electoral process in Makurdi is a pivotal development for enhancing the credibility and transparency of the presidential election, as it reduces electoral fraud, ensures voter authentication, and promotes public trust in the electoral system.

The 2019 and 2023 presidential elections incorporated improvements such as better training for election staff, updated hardware, and an enhanced voter database. It is in light of the above that we pose the following research questions:

1. Does the adoption of a SCR machine enhance the credibility of the Presidential election in the Makurdi Local Government Area of Benue State, 2015 – 2023?
2. Are the technical challenges associated with the use of SCR implicated in the electoral irregularities in the Presidential election in Makurdi Local Government Area of Benue State, 2015-2023?

Aims of the Study

This study has broad and specific objectives. The broad objective is to investigate the effects of the INEC's use of SCR machines and the credibility of general elections in Nigeria's democratic process. However, the specific objectives are to:

1. To investigate whether the adoption of SCR machine enhances the credibility of Presidential elections in Makurdi Local Government Area of Benue State, 2015 – 2023
2. To find out if the technical challenges that accompany the use of SCRs are implicated in the electoral irregularities in the Presidential election in Makurdi Local Government Area of Benue State, 2015-2023

Significance of the Study

This study has both theoretical and practical significance. On a theoretical level, by identifying the impact and issues surrounding the use of SCR machines in the 2015, 2019, and 2023 presidential elections, this study will contribute to the pool of knowledge and be a source for further research and inquiries on the subject matter.

Practically, the study will be of interest and immense benefit to government agencies such as the Independent National Electoral Commission (INEC), the executive arm of government that is currently withholding assent to the electoral bill that will usher Nigeria into electronic voting, policymakers, members of the National Assembly who are going through a lot of pressure to change the existing electoral laws and bring about an improvement into our electoral jurisprudence.

LITERATURE REVIEW

The literature surrounding the use of SCR in Nigerian elections has evolved over the years, with significant attention on the role of technology in ensuring electoral integrity and reducing fraud. In this review, we used a thematic method to explore each section carefully. We start with the historical context of election integrity in Nigeria, the introduction and use of technology in elections, challenges with the SCR, and the broader implications of technology on electoral credibility.

Election Credibility and Integrity in Nigeria

The credibility of elections in Nigeria has been a major concern since the country's return to democratic governance in 1999. Issues such as election rigging, voter intimidation, and fraud have persisted across different electoral cycles, eroding public confidence in the election process (Omotola, 2017). Electoral fraud, particularly multiple voting and voter impersonation, has been one of the main concerns in Nigerian elections (Adebayo, 2015). These malpractices have led to calls for electoral reforms that would guarantee transparency and fairness. The failure to address these challenges has led to low voter turnout and general apathy toward elections in some areas (Norris, 2014).

Adebayo (2015) notes that the introduction of technological solutions like electronic voting machines and biometric voter verification systems has been viewed as a significant step toward addressing electoral fraud. However, despite the introduction of these technologies, there are concerns regarding their effective implementation, particularly in regions with poor infrastructure and low levels of technological literacy. This literature suggests that technology alone may not be sufficient to address the problem of election credibility unless supported by comprehensive reforms in electoral administration and civic engagement.

The Use of SCR in Presidential Elections: Challenges Faced in 2015, 2019, and 2023

The introduction of the SCR in the 2015 Nigerian presidential elections marked a significant step towards improving the credibility and transparency of the electoral process. This technology was designed to address several long-standing issues related to voter fraud, multiple voting, and impersonation, all of which had undermined the integrity of previous elections. However, despite the initial optimism surrounding the technology, its implementation was fraught with challenges, which continued to affect subsequent elections in 2019 and 2023. This section discusses the use of SCR in presidential elections, the challenges faced during the 2015 election, and the efforts made to improve the technology in subsequent elections.

Introduction of the SCR in the 2015 Elections

The Independent National Electoral Commission (INEC) introduced the SCR as part of a series of electoral reforms aimed at improving the credibility of the electoral process. The primary function of the SCR was to verify voters' Permanent Voter Cards (PVCs) using biometric data, ensuring that only registered voters could participate in the election. This technology was expected to eliminate the possibility of multiple voting, voter impersonation, and other forms of election fraud that had plagued past elections (Iyiola & Ojo, 2016).

In the 2015 presidential elections, the SCR was used for the first time in a general election. The goal was to streamline the voter accreditation process, reduce electoral malpractice, and enhance the overall credibility of the election. Voters were required to present their PVCs at polling stations, where their biometric data would be scanned and verified using the SCR. If the Card Reader successfully verified the PVC, the voter would be allowed to cast their ballot.

Despite the technological advancements offered by the SCR, the 2015 elections revealed significant challenges in its implementation. The following section discusses these challenges faced in the 2015 Presidential Election.

While the deployment of the SCR in the 2015 elections was intended to enhance electoral credibility, it faced numerous technical and logistical challenges that affected its performance and the overall election process.

- **Technical Failures and Malfunctions:** One of the major challenges faced during the 2015 elections was the technical failures of the SCR. Many card readers malfunctioned at polling stations, leading to long delays in the accreditation process. In some areas, voters had to wait for hours before they could be accredited. In some cases, the SCR could not authenticate voters' PVCs, especially in rural areas with weak network connectivity (Adebayo, 2015). This led to widespread frustration among voters and election officials.
- **Power Supply Issues:** Another challenge was the inconsistent power supply at polling stations, which affected the functioning of the SCR. Since the devices required electricity to operate, power outages or the lack of backup power in some locations prevented the Card Readers from functioning properly, further delaying the accreditation process (van Ham & Bachtler, 2015).
- **Inadequate Training for Election Officials:** Many election officials were not adequately trained to handle the SCR technology, leading to inefficiencies and confusion at polling stations. In several instances, election workers struggled to operate the device, contributing to delays in the accreditation process and creating frustration among voters (Omotola, 2017). The lack of proper training also made it difficult to troubleshoot technical issues when the Card Readers malfunctioned.
- **Voter Confusion and Lack of Awareness:** Many voters were not fully informed about how the SCR worked, especially in rural areas. This lack of understanding led to confusion and delays, as voters were unfamiliar with the process of presenting their PVCs for biometric verification (Iyiola & Ojo, 2016). Moreover, some voters did not understand why they

could not vote if their Card Reader verification failed, leading to dissatisfaction with the electoral process.

Improvements in the 2019 Elections

In the years following the 2015 elections, INEC made efforts to address the issues faced during the first deployment of the SCR. By 2019, some of the initial challenges had been mitigated, but others persisted.

1. **Upgraded Card Reader Technology:** For the 2019 elections, INEC upgraded the SCR hardware and software to improve reliability and speed. The new models were designed to reduce the likelihood of malfunctions and improve voter verification accuracy (Adebayo, 2015). These upgrades helped to improve the accreditation process, although some minor technical issues remained in certain areas, particularly in rural and remote locations where network coverage and infrastructure remained weak.
2. **Improved Training for Election Officials:** INEC also invested in more comprehensive training programs for election officials. The training focused on how to use the SCR effectively and troubleshoot common issues. This resulted in a smoother accreditation process compared to 2015, as election officials were better prepared to manage the technology and respond to problems at polling stations (Iyiola & Ojo, 2016).
3. **Voter Education Campaigns:** In an attempt to reduce confusion, INEC launched a series of voter education campaigns before the 2019 elections to familiarise voters with the SCR and the biometric verification process. These campaigns aimed to reduce the level of misunderstanding and help voters understand how the new technology worked (van Ham & Bachtler, 2015). Despite these improvements, the 2019 elections still faced challenges, such as delays in accreditation, especially in areas with poor infrastructure. Additionally, while the SCR helped reduce voter impersonation, the problems of vote buying and ballot box stuffing remained widespread.

Use of SCR in the 2023 Elections

The 2023 presidential elections marked the third major use of SCR in Nigeria. By this time, INEC had further refined its processes and made additional upgrades to the SCR system, alongside the introduction of new technologies like the Bimodal Voter Accreditation System (BVAS). The BVAS, which combines fingerprint and facial recognition technology, was introduced to supplement the SCR and enhance the biometric verification process.

1. **Refined Technology:** The BVAS system, introduced alongside the SCR, addressed many of the technical limitations that were evident in previous elections. It combined fingerprint and facial recognition to improve voter identification and mitigate the challenges of poor biometric matching that had been observed in earlier elections. This made the accreditation process more reliable and accurate, reducing the likelihood of technical failures (Omotola, 2017).
2. **Better Infrastructure and Preparation:** INEC improved its infrastructure, ensuring that polling stations had adequate power supply and backup systems. The technology was also

better integrated with INEC's central database, which reduced delays and improved the speed of accreditation (Iyiola & Ojo, 2016). However, challenges remained in rural areas, where power outages and network failures continued to disrupt the SCR and BVAS systems.

3. Election Security and Credibility: Although the SCR and BVAS significantly improved the integrity of the accreditation process, issues related to vote buying, violence, and intimidation persisted, particularly in areas with high political tension. These issues highlighted the need for broader electoral reforms beyond technological interventions (van Ham & Bachtler, 2015).

Technological Advancements Post-2020 in Electoral Systems (BVAS regime)

Technological innovation in the electoral process has been a critical factor in improving electoral integrity and public trust. The adoption of digital tools such as electronic voting systems, biometric identification, and real-time election monitoring has become increasingly common in various democracies. The post-2020 period saw a more focused effort to modernise electoral systems, especially in countries like Nigeria, where the need for electoral reforms was urgent due to repeated issues of electoral malpractices, such as voter fraud and inaccurate voter identification.

A prominent example of this technological shift is the BVAS. Prior to 2020, Nigeria's elections were often marred by logistical issues, including delays in the accreditation process and the manipulation of voter data. The introduction of BVAS by INEC in 2020 and its successful deployment during the 2023 elections represented a significant stride toward mitigating these issues (Akinyemi, 2023). BVAS incorporates two key technologies: biometric data collection (fingerprints and facial recognition) and the use of a secure, electronic means to transmit accreditation data directly to the INEC server.

The Mechanism of BVAS and Its Implementation

The BVAS system operates as a dual-method accreditation tool, integrating both fingerprint and facial recognition biometric features to authenticate voters. In previous elections, the voter accreditation process relied heavily on the use of Permanent Voter Cards (PVCs) and manual verification, which proved to be inefficient and susceptible to fraudulent activities (Oladeji, 2022). The BVAS system was designed to rectify these shortcomings by ensuring that only eligible voters were accredited to vote.

BVAS devices are equipped with a robust biometric scanner capable of capturing fingerprints and facial recognition data, ensuring that voters cannot impersonate others or bypass the accreditation process. This is a substantial improvement from the old system, where incidents of multiple registrations and the use of fake credentials were rampant (Eneji, 2023). Moreover, BVAS technology ensures that voter accreditation data is uploaded in real time to the INEC server, preventing the manipulation of accreditation records and enhancing the transparency of the electoral process.

Impact on Voter Accreditation and Election Credibility

The introduction of BVAS brought about notable improvements in voter accreditation and contributed significantly to the credibility of the election process. By using biometric data to verify voter identities, the system minimises the risk of identity theft or multiple voting by individuals. This innovation also reduced the need for manual intervention during the accreditation process, which had previously led to long queues, errors, and confusion.

The real-time transmission of voter data to INEC's central server allowed for immediate verification and cross-checking of voter information, which greatly enhanced the speed and efficiency of the accreditation process. According to Akinyemi (2023), the 2023 general elections witnessed a marked reduction in instances of voter impersonation, with the BVAS system playing a pivotal role in ensuring that only legitimate voters were able to participate.

Furthermore, the use of BVAS addressed one of the most critical issues facing Nigerian elections—electoral fraud. The ability to track voter accreditation data electronically meant that it was much harder to manipulate or alter results, as the data was securely stored and transmitted. The deployment of BVAS helped INEC bolster its image as a more credible electoral body, significantly enhancing public confidence in the electoral process (Oladeji, 2022).

Challenges in the Adoption of BVAS

Despite the many advantages of the BVAS system, the full-scale implementation of this technology was not without challenges. One of the primary concerns raised by observers was the reliability of the technology in remote areas where network connectivity and power supply are often inconsistent (Eneji, 2023). In some locations, there were reports of slow accreditation processes due to the inability of the BVAS devices to capture biometric data effectively or transmit it in real time.

Moreover, there were issues related to the training of electoral officers. The success of BVAS heavily relied on the competence of electoral staff, but there were instances where some officers struggled to operate the devices efficiently, leading to delays in the accreditation process (Akinyemi, 2023). These challenges highlighted the need for continuous training and the upgrading of technological infrastructure, particularly in rural and underserved areas.

Another notable challenge was the public's trust in the new system. While many voters embraced the technology, there were fears that the system could be hacked or manipulated, particularly in regions with a history of election rigging. These concerns were exacerbated by reports of technical glitches and delays in the real-time transmission of accreditation data, which led to some level of scepticism about the technology's effectiveness.

Comparative Study of the Technological Advancements in Elections Across African Countries

Nigeria's Bimodal Voter Accreditation System (BVAS) stands as a notable example of technological advancements in electoral systems. However, other African countries have also introduced innovative election technologies aimed at improving voter identification, accreditation, and election transparency. This comparative analysis reviews Kenya, Ghana, South Africa, and Zambia, which, like Nigeria, have adopted biometric systems and electronic voting technologies to enhance their election processes.

Nigeria's Bimodal Voter Accreditation System (BVAS)

The Nigerian electoral umpire introduced the BVAS Technology, which was used in the 2023 presidential elections in Nigeria, including Makurdi. BVAS combines biometric voter registration and accreditation using fingerprints and facial recognition. The system was officially deployed during the 2023 general elections, replacing the older Card Reader system used in previous elections. The impact of this technology cannot be overemphasised. The BVAS system aims to reduce multiple voting, voter impersonation, and other electoral frauds. The use of biometric data to verify voter identity ensures greater integrity in the electoral process.

The BVAS technology had challenges, such as technical glitches, delays in accreditation, and unreliable network connectivity in some rural areas, which led to concerns about the system's effectiveness (Akinleye & Olawole, 2023). These challenges raised questions about BVAS's capacity to perform consistently across diverse regions.

The Kenya Integrated Election Management System (KIEMS)

Kenya's KIEMS is a similar biometric-based system that incorporates Biometric Voter Registration (BVR) and Kenya Integrated Election Management System (KIEMS) kits for voter accreditation. The system also facilitates the electronic transmission of results. The government of Kenya introduced this KIEMS technology in 2013, and in 2017, it was used widely in national elections. The system was further refined and deployed in the 2022 elections.

Like the Nigerian BVAS, KIEMS improved voter identification accuracy and transparency, reducing incidents of election fraud. In 2022, it played a critical role in reducing the impact of voter impersonation, ensuring more accurate voter rolls, and providing real-time data (Obonyo & Aloo, 2023).

However, KIEMS faced similar issues with network outages in remote regions, causing delays in result transmission and voter accreditation, especially in rural areas (Kenya Electoral Commission, 2022).

The Ghana Biometric Voter Registration (BVR) System

This Technology was introduced to bring integrity to the Ghanaian electoral process. Ghana's Biometric Voter Registration (BVR) system captures fingerprints, photos, and other personal data to ensure that voters are accurately registered and identified. The system is supplemented by Electronic Voting Machines (EVMs) in some districts.

BVR was introduced in 2012, and since then, biometric registration has been used for all subsequent elections, including the 2020 general elections. The system helped combat voter impersonation and ensured that only registered voters were accredited. It increased public confidence in the electoral process by reducing fraud during voter registration and election-day activities (Yeboah & Boateng, 2021).

The use of EVMs faced challenges in terms of limited deployment in rural areas. Additionally, while biometric voter registration was generally successful, some voters experienced delays due to technical issues during registration (Yeboah & Boateng, 2021).

South African Electronic Voting Trials

The Electoral Commission of South Africa (IEC) has tested electronic voting systems (e-voting), alongside electronic voter registration and electronic result transmission (ERT). Although full-scale e-voting has not been adopted nationally, trials have been carried out in select regions.

E-voting trials began in 2014 with some local elections, and the system has been refined over time. The trials were deemed successful in promoting transparency, especially in areas where e-voting was implemented. The system was seen as an avenue for reducing electoral fraud and improving the speed of result transmission (Electoral Commission of South Africa, 2023).

Despite successes, there have been concerns over the security of e-voting systems, especially regarding voter privacy and hacking risks. Resistance from political parties and stakeholders has delayed the full national implementation of electronic voting (Mthembu, 2022).

Zambian Electronic Voter Registration (EVR) and E-Voting Trials

Elections in Zambia also use Electronic Voter Registration (EVR), which captures biometric data during voter registration, alongside trials for electronic voting (e-voting) systems. The Zambia Electoral Commission (ECZ) has tested electronic voting systems during several local elections.

The EVR system was implemented during the 2016 elections, and e-voting trials were conducted in subsequent elections. The adoption of EVR significantly improved voter registration accuracy and helped reduce voter fraud. The system made it easier for officials to manage voter rolls and identify potential fraudsters (Zambia Electoral Commission, 2021).

Like any other electronic technology under study, limited infrastructure in rural areas and the costs associated with the widespread deployment of e-voting systems remain barriers to full-scale

implementation. Additionally, public confidence in new technologies and voter education remains a challenge (Zambia Electoral Commission, 2021).

This comparative study of technological innovations in African elections shows that while countries like Nigeria, Kenya, Ghana, South Africa, and Zambia have successfully implemented systems that improve electoral transparency, there are still significant challenges in terms of infrastructure, public trust, and system reliability. Continued investment in technology, training, and public awareness will be key to overcoming these barriers and ensuring the successful implementation of these systems across Africa.

Gap in Literature

Therefore, arising from the literature reviewed above, little or no systemic scholarly attention has been paid to interrogating the impacts of SCR and presidential election credibility in Makurdi Local Government 2015 - 2023. Therefore, this study fills this lacuna in the literature by x-raying the controversies that trailed the introduction of SCR machines in the three presidential elections since INEC introduced it. This work studies the acceptability and usage of the card reader machine among the voters and the credibility and acceptability of the three elections among Nigerians. Therefore, it is this epistemic space within the literature that motivated this study.

Theoretical Framework

This work has adopted the Theory of Electoral Integrity as a framework of analysis to analyse the role of the SCR in enhancing the credibility of Nigeria's presidential elections from 2015 to 2023, focusing specifically on the experience in Makurdi Local Government Area, Benue State. The Theory of Electoral Integrity is grounded in the idea that the legitimacy of electoral processes is influenced by the extent to which elections are conducted in a free, fair, and transparent manner. According to Norris (2014), electoral integrity is a measure of the extent to which elections conform to democratic principles, ensuring that the election process is credible and meets international standards. The theory emphasises that electoral integrity involves multiple dimensions, including legal, procedural, and institutional aspects, all of which influence the perceptions of voters, political actors, and civil society.

In the context of Nigeria, where electoral fraud and manipulation have long undermined public confidence in the election process (Omotola, 2017), the introduction of the SCR was an attempt by the Independent National Electoral Commission (INEC) to increase electoral integrity. By providing biometric authentication of voters, the SCR aimed to address issues such as multiple voting, voter impersonation, and falsification of results, which have traditionally plagued Nigerian elections (Iyiola & Ojo, 2016). The Theory of Electoral Integrity allows us to explore how the deployment of technological solutions, such as the SCR, might enhance or diminish the perceived legitimacy of elections in Makurdi Local Government, Benue State.

This theory provides a useful lens for evaluating the SCR's successes and limitations, particularly in terms of how effectively it reduced election-related malpractices. It also highlights the broader

political environment that influences the effectiveness of such technologies, such as electoral fraud, poor governance, and the political culture in Nigeria (Omotola, 2017).

Hypotheses

In carrying out this research, the understated hypotheses were put forward for empirical verification:

- i. There is no electoral credibility in the use of SCR in the presidential elections in Makurdi Local Government of Benue State, 2015-2023
- ii. There are no electoral irregularities owing to the technical challenges in the use of SCR in the presidential election in Makurdi Local Government of Benue State, 2015-2023

METHODOLOGY

The work made use of both the documentary and survey method as means for data collection and time series as research design. In the survey method, we made use of primary sources where we administered questionnaires to the targeted population, and we made use of secondary sources of data collection. Data collected was analysed and presented in tables using descriptive statistical analysis. For data analysis that seeks to empirically verify our research hypothesis, qualitative descriptive analysis was used. The central objective of qualitative descriptive analysis is to convert recorded raw phenomena into data, which can be treated in a scientific manner so that a body of knowledge may be built up. In doing this, the information gathered will be summarized and processed through the Statistical Package for Social Science (SPSS, 2016).

Research Design

This study is based on the Time Series research design, which calls for a lengthy series of repeated measurements before a presumed causal event occurs, followed by another lengthy series of measurements. This design involves successive observations throughout a programmed intervention and assesses the characteristics of the change process (Gottman, McFall & Barnet, 1969). One of the major strengths of this research design is that it is extensively descriptive, which is particularly important when the intervention extends over a considerable period of time. The Time Series research design furnishes us with a continuous record of fluctuations in the variable under observation over the entire course of the programme. It is symbolically represented thus: $O_1, O_2, O_3, O_4, X, O_5, O_6, O_7, O_8$. Where: X refers to the experimental treatment (independent variable). O refers to an observation on the dependent variable. $O_1, O_2...$ refers to the time order of observations, the subscript indicating the order. The difference between the O_4 and O_5 constitutes the primary focus for measuring the effects of the experimental treatment; nevertheless, the overall pattern of the series provides controls for the interpretation of the O_4 - O_5 difference (Leege and Francis, 1974).

Population and Sampling

The population of the study includes all the 207 INEC staff in Makurdi Local Government Area. This includes people who are considered junior staff and those on grade level 12 and above, who are considered senior staff. From the Resident Electoral Commissioner (REC) down to the least staff of the commission. In this study, we are making use of the entire 207 INEC officials of the Independent Electoral Commission in Benue State that conducted all the presidential elections in Makurdi Local Government Area. They are all chosen based on their job experience most importantly the issues that surround the use of SCR machines in the presidential elections.

Reliability of Research Instrument

The test-retest method of reliability testing will be adopted. For the instrument to be confirmed reliable, the coefficient of reliability (r) must be above 0.5.

Table 1: Value of Respondents' Rating/Scale

| Range of Respondents' Response/Opinion on the Questionnaire. | Respondents' Rating/Scale. | Value of Respondents' Rating/Scale. |
|--|----------------------------|-------------------------------------|
| Strongly Agree (SA) | 4 points | 4.00-3.50 |
| Agree(A) | 3 points | 3.49-2.50 |
| Disagree(D) | 2 points | 2.49-1.50 |
| Strongly Disagree (SD) | 1 point | 1.49-1.00 |
| Undecided (UD). | 0 point | 0.49.00 |

$$4 + 3 + 2 + 1 + 0 = 10$$

Decision Criteria

Based on the table above, the ordinal scale in the form of Likert scales and the real limit of numbers were used as a criterion (the cut-off point) for determining if the mean scores were significantly different from a hypothesized value of 3.00 at a $p \leq 0.05$ level of significance. Real limit of numbers was used as a criterion (the cut-off point) for determining the mean scores, such that any item whose mean value is 2.50 or above will be regarded as "Agreed" while those items whose means are below 2.50 will be regarded as 'Disagreed'. The decision rule was to accept the null hypothesis when the exact probability level of t (2-Tail Sig) is greater than 0.05 and to reject the null hypothesis when it is less than or equal to 0.05. The t-test was applied in testing hypotheses one and two.

FINDINGS/RESULTS

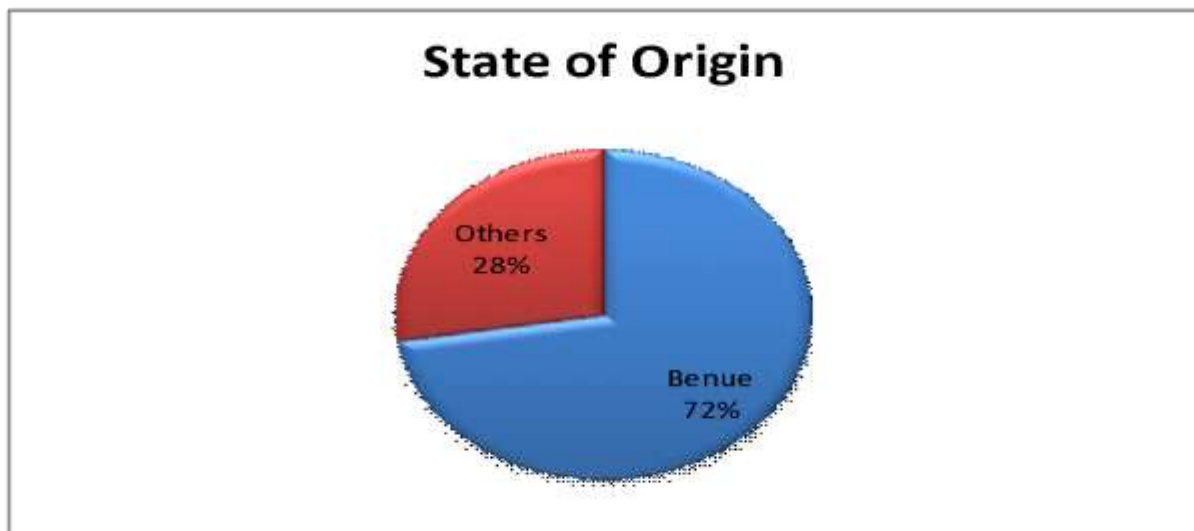
This section presents the study's results in accordance with the research questions and hypotheses. However, the results are presented in accordance with respondents' responses to the questions raised in the study, which is also geared towards validating or nullifying the hypotheses.

Research Question 1: Does INEC's adoption of a SCR machine bring credibility to the presidential election in Makurdi Local Government Area of Benue State, 2015 – 2023?

Data gathered from respondents through the distribution of questionnaire instruments and focus group interviews shows that frantic attempts were made to answer the questions. Validating the aforesaid assertion is the nature of the demographic information of the respondents. First and foremost, the sampled population mainly consisted of registered voters from Makurdi Local Government, as well as indigenous INEC staff from Benue, given their in-depth knowledge of the state's politics.

This illustrates the state of origin of the respondents. The figure indicates that a total of 150 respondents, comprising 72% from Benue state, while 57 individuals, representing 28%, come from other states within the Federal Republic of Nigeria.

Figure 1. Showing the State of Origin of Respondents



Source: Author Data Analysis Output

Furthermore, the majority of the staff at level 12 and above, who are more experienced and familiar with elections in the state, have access to privileged information. Additionally, they are present on the ground during all elections and were selected in an effort to achieve authentic results. Below is the chart showing the distribution according to grade level in INEC Benue State:

Figure 2. Showing the Official Grade Level of Respondents



Source: Author Data Analysis Output

The Chart above shows the grade levels of the respondents. Out of the total of 207 respondents, 49 (24%) are in grade level 6 to grade level 8, 73 (35%) are in grade level 9 to grade level 11, and 85(41%) are in grade level 12 and above. This shows that the data from these respondents can be relied upon to answer our questions.

Against that background, in a bid to decipher weather the adoption of SCR Machine enhanced the credibility of the presidential elections conducted in Makurdi Local government Area of Benue State between the period of 2015-2023, we shall be looking analytically into the Mean ratings of respondents as regards their responses to the questions in the questionnaire instruments, from which we can reach an empirical conclusion that will either validate or nullify the hypotheses of the study.

Table 1: Summary table of t-test analysis

| Groups | N | \bar{X} | SD | t | df | Sig. (2-tailed) | Decision |
|--------------------|-----|-----------|-----|-------|----|-----------------|----------|
| GL6-11 respondents | 122 | 2.77 | .37 | 1.342 | 22 | .193 | NS |
| GL12+ respondents | 85 | 2.99 | .45 | | | | |

Keys: Sig. = Significant; NS = No Significant

The results above show the t-test analysis of no statistically significant difference in the mean rating of Grade Level 6-11 and Grade Level 12 and above (+) respondents that the use of SCR in the presidential election in 2015 and 2023 ensured electoral credibility in Makurdi Local

Government of Benue State. The table reveals that $t(-1.342) = 22, p > .193$. Since the probability figure (sig.2-tailed) of .193 is greater than 0.05, the null hypothesis, therefore, is accepted. Thus, there is no statistically significant difference in the mean rating of Grade Level 6-11 and Grade Level 12 and above (+) respondents that the use of SCR in the presidential election in 2015 and 2023 ensured electoral credibility in Makurdi Local Government of Benue State. This further affirms their responses in the results returned that the use of SCRs in the 2015 and 2023 presidential elections ensured electoral credibility in Makurdi Local Government of Benue State since senior staff (Grade Level 12 and above) in INEC and the Junior staff (Grade Level 6-11) do not have divergent view about this.

More so, to ascertain if the technical challenges accompanying the use of the SCR machine implicate electoral irregularities in the presidential elections in Makurdi LGA of Benue State, 2015-2019, the Mean ratings will be used to test the hypothesis before empirical conclusions can be made for or against.

Research question 2: What percentage of respondents indicates the technical challenges associated with the use of SCR and their implications for electoral irregularities in the Presidential elections in Makurdi LGA, Benue State, from 2015 to 2023?

Table 2: Summary table of t-test analysis

| Groups | N | \bar{X} | SD | T | d | Sig. (2-tailed) | Decision |
|--------------------|-----|-----------|-----|------|--------|-----------------|----------|
| GL6-11 respondents | 122 | 2.69 | .42 | .975 | 22.008 | .340 | NS |
| GL12+ respondents | 85 | 2.49 | .58 | | | | |

Keys: Sig. = Significant; NS = No Significant

The results presented in Table 2 indicate a t-test analysis revealing no statistically significant difference in the mean ratings between respondents from Grade Levels 6-11 and those from Grade Level 12 and above concerning perceptions of electoral irregularities attributed to technical challenges in the use of the Smart Card Readers (SCR) during the presidential elections in the Makurdi Local Government Area of Benue State, spanning the years 2015 to 2023. Specifically, the table illustrates that $t(0.975) = 22.008$, with a significance level (p) greater than .340. Given that the p-value of .340 exceeds the conventional alpha level of 0.05, we fail to reject the null hypothesis. Consequently, it can be inferred that there is no statistically significant difference in the mean ratings of respondents across the defined grade levels regarding the absence of electoral irregularities due to technical difficulties encountered with the SCR during the aforementioned presidential elections.

Furthermore, while certain statistically significant differences are noted in the respondents' answers to individual items within the survey, these disparities do not manifest in a significant overall comparison of the cumulative responses. This observation suggests that only a limited number of the recorded technical challenges associated with the SCR were correlated with electoral irregularities encountered in specific polling units. Additionally, the implementation of electronic electoral result collation lacks a legal framework that would substantiate it as valid

evidence against any claims of electoral irregularities. Thus, the deployment of SCR in the presidential elections of 2015 and 2023 in Makurdi remains devoid of considerable merit.

Study Limitation and Areas for Future Research

In the course of this study, several limitations were encountered, and most of them actually have an effect on the work. First, the study was limited by insufficient time to conduct comprehensive research, resulting in a lack of in-depth analysis or follow-up on key issues of SCR and election credibility. The second limitation is the bias that most of our respondents have due to their conceived covert political leanings, most especially the most senior staff who have political connections and may tend to withhold information in the course of this work. Based on the limitations identified, this study highlights several areas for future research, such as conducting a survey to assess the SCR in multiple elections. Additionally, a comparative study on the effectiveness of SCR in different regions of Nigeria is suggested. Another area for future study could examine public perceptions and voter attitudes towards SCR in Nigeria.

Summary and Conclusion

This study set out to examine “The use of SCR and Presidential Elections credibility in Makurdi Local Government Area, Benue State, Nigeria. 2015 – 2023” to achieve that, the study raised two research questions that guided the objectives and hypotheses of the study. The study has both broad and specific objectives. Broadly, the study seeks to interrogate the effects of the use of SCR machines and the credibility of general elections in Nigeria's democratic process. However, the specific objectives of the study are to ascertain whether the adoption of SCR machine by INEC enhanced the credibility of the Presidential election in Makurdi Local Government Area of Benue State, 2015 – 2023 and investigate if the technical challenges that accompanied the use of SCR implicate on the electoral irregularities in the Presidential election in Makurdi Local Government Area of Benue State, 2015-2019. The study clearly articulated its theoretical and practical significance.

To this end, we formulated the following hypotheses, that there is no electoral credibility in the use of SCR in the presidential elections in Makurdi Local Government of Benue State, 2015-2023, and no electoral irregularities are owing to the technical challenges in the use of SCR in the presidential election in Makurdi Local Government of Benue State, 2015-2019. To effectively address this issue, the study adopted the time series as its research design. To generate pertinent and valuable data for the study, we made use of both the documentary and survey methods as means for data collection. In the survey method, we made use of primary sources where we administered questionnaires to the targeted population, and we made use of secondary sources of data collection, which involved the gathering of data from books, journals, conference and seminar papers, and official publications of the government. Data was analysed using descriptive and content analysis.

After rigorous analysis, the study noted that:

- There are no significant differences in the responses of respondents on the adoption of SCR machines by INEC and the credibility of the Presidential election in Makurdi Local Government Area of Benue State, 2015 – 2023.
- Also, there are no significant differences in the responses of respondents on the use of SCR and electoral irregularities in the presidential election in Makurdi Local Government of Benue State, 2015-2023.

The above findings of the study, as analytically drawn from the mean ratings through the use of t-test analysis, show that first, the SCR Machine, as used for PVC verification, reduced the chance of multiple voting in the elections in Makurdi LGA. Also, the use of the SCR machine for electronic accreditation before voting helped curtail electoral malpractices. It helped to check the massive inflation figures after voting. Figures released after voting were either equal to the accredited voters as captured by the SCR machine or less than the accredited voters. To that end, it was revealed that the adoption of the SCR reduced the rigging process by ad-hoc staff at the P-unit level who hitherto inflate figures with the use of a Manual register.

Additionally, the use of SCR helped to fish out voters with fake PVCs in most of the polling units in Makurdi LGA, thereby making it practically possible to identify eligible voters that are registered within a given P-Unit. This helped to checkmate and curb a lot of irregularities that would have occurred both before and during the voting process. Moreover, the SCR helped to eliminate double & multiple voting by electorate, which hitherto characterised the voting process using the Manual register. Also, the adoption of the SCR machine reduced the cases of ballot box snatching at the P-Units during elections to the barest minimum.

Evidentially, the SCR machine in all respects helped to minimise electoral irregularities; nevertheless, some technical challenges were identified in its use. First and foremost, some of the deployed Ad-Hoc staff (i.e., APO II) were unable to operate the SCR effectively because they lacked the technical know-how. Additionally, a poor and inadequate power source for charging the batteries of the SCR machines in some P-units posed another significant challenge. Furthermore, there was a notable issue with poor network reception in certain P-Units located in remote rural areas, which resulted in ineffective or partial use of the SCR machines in those locations.

But in all, from the data provided by the respondents, there is no statistical difference in the mean ratings of respondents of Grade level 6-11 and Grade level 12 and above (+) that the use of SCR machine in the 2019 Presidential elections ensured electoral credibility in Makurdi LGA of Benue State.

Our stated hypothesis, which states that there is no electoral credibility in the use of SCR in the presidential elections in Makurdi Local Government of Benue State, is therefore not rejected, while the hypothesis which states that there are no electoral irregularities owing to the technical challenges in the use of SCR in the presidential election in Makurdi Local Government of Benue State is also not rejected.

Recommendations

The SCR greatly influenced the last two presidential elections in the country despite having no legal premise in any court. In view of the above submission and findings, the work offers the following recommendations.

1. In order to effectively deliver credible, transparent, free, and fair elections in the future using the card reader, INEC must invest in regular staff training and development to remain up to date with modern technological changes. These developments are fast occupying the democratic landscape and electoral process. Consequently, future general elections in Nigeria should gradually become more technologically driven.
2. The National Assembly should move swiftly to amend our electoral laws by strengthening them and ensuring the electronic voting system and mandatory transmission of results in real time by the presiding officer using the electronic device. This will ensure credibility, save time, and end the bitter misunderstandings that surrounded past elections in the country.

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