

BIOMETRIC VOTING TECHNOLOGY AND THE 2015 GENERAL ELECTIONS IN NIGERIA

By

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Abstract: The democratization of politics in most post-colonial and transitional democracies like Nigeria has not been successful in terms of reducing the incidence of voter intimidation, ballot box snatching and stuffing, vote buying, multiple voting, underage voting, falsification of results and other associated electoral malfeasances. The historical trajectory of elections in Nigeria is, therefore, inseparable from monumental and barefaced electoral manipulations. In addition to the role of civil society organisations and other principal stakeholders on election, the introduction of biometric smart card reader— an anti-rigging technological device— for the authentication of voters’ cards seems to have made most of these electoral ills largely unfashionable. Specifically, this paper investigated the role of the card reader in improving the credibility of the 2015 General Elections. It relied on documentary method for the generation of data. Using the cybernetics model of communications theory, the paper concluded that the use of the novel technology had rekindled the confidence of most Nigerian voters and international partners in Nigeria’s EMB as well as accounted for the general drop in the volume of election petitions filed by aggrieved politicians and political parties. Thus, it recommended that the innovation should not only be fully embraced but e-voting be incorporated into Nigeria’s electoral system as a panacea for electoral fraud. Section 52 of the Electoral Act, 2010 (as amended) which prohibits e-voting should be amended in order to make its adoption statutorily possible.

Keywords: Biometrics, Voting Technology, Electoral Fraud, 2015 General Elections, Cybernetics

Introduction

Free, fair and credible elections are central to electoral democracy and provide vital means of empowering citizens to hold their leaders accountable. In a multi-party democracy, it behoves both the elected and appointed government officials at all levels of the political system to render periodic account of their stewardship to the populace. However, accountability of public officials in Nigeria has been undermined by the fact that elections in the country are perennially fraught with irregularities. The democratization of politics has been unsuccessful in arresting electoral frauds perpetrated by different political parties and megalomaniac politicians. It has also been unable to address the administrative misconduct of officials of Nigeria’s Election Management Body (EMB)— the Independent National Electoral Commission (INEC). The collapse of the First and Second Republics, and also the abortion of the Third Republic through the annulment of the June 12, 1993 Presidential Election are clear indicators of the failure of previous attempts to democratize elections in Nigeria.

Elections are important elements of modern representative government. They typify the democratic process; hence, the abolition of elections is often interpreted as the abolition of

democracy. According to Nnoli (2003), “elections are so clearly tied to the growth and development of representative democratic government that they are now generally held to be the single most important indicator of the presence or absence of such government” (p. 220). They are meaningfully democratic if they are free, fair, participatory, credible, competitive and legitimate. Elections are, therefore, adjudged to have met these criteria:

when they are administered by a neutral authority; when the electoral administration is sufficiently competent and resourceful to take specific precautions against fraud; when the police, military and courts treat competing candidates and parties impartially; when contenders all have access to the public media; when electoral districts and rules do not grossly handicap the opposition; . . . when the secret of the ballot is protected; when virtually all adults can vote; when procedures for organizing and counting the votes are widely known; and when there are transparent and impartial procedures for resolving election complaints and disputes (Diamond, 2008, p. 25).

However, the historical significance of democratic elections for human progress does not necessarily mean that in each and every country elections adequately reflect these traits, or contribute to the material and political wellbeing of the masses of the population. Hitherto, the electoral system in Nigeria has failed to meet the above benchmark enumerated in Diamond (2008). Since the return to civil rule in 1999, elections had been characterized by ineffective administration at all stages and levels (before, during and after), resulting in discredited outcomes. This was due in large to the weak institutionalization of the primary agencies of electoral administration, particularly INEC and Nigerian political parties. INEC is deficient of institutional, administrative and financial autonomy with attendant lack of professionalism and recurrent political interference. In addition, the desperation of many Nigerian politicians to win at all cost has compromised election administration in the country. The procedures for organizing and counting the votes are generally not transparent. The foregoing deficiencies of the EMB have been heightened by the nature and character of the Nigerian State which thrives on low autonomization. Consequently, many eligible voters have become politically apathetic not because they do not want to participate; they believe their votes would not count.

The prevalence of electoral irregularities in many transitional democracies, especially in Africa, has accentuated the clamour for and use of voting technologies for uncovering and

reducing election frauds. According to Golden, Kramon & Ofori (2014), “these technological solutions, such as electronic voting machines, polling station webcams and biometric identification equipment, offer the promise of rapid, accurate, and ostensibly tamper-proof innovations that are expected to reduce fraud in the processes of registration, voting or vote count aggregation” (p. 1). Biometric identification machines authenticate the identity of voters using biometric markers, such as fingerprints, that are almost impossible to counterfeit. The technologies are particularly useful in settings where governments have not previously established reliable or complete paper-based identification systems for their populations (Gelb & Decker, 2012).

These African fledgling democracies have persistent difficulties in registering their electors and establishing their identity. Following polemics about the quality of existing voter rolls, some of these countries have recently introduced reforms to their voter registration systems, such as the adoption of voter identities and of biometric technology. Gelb & Clark (2013) aver that biometric identification systems are already in widespread use for voter registration and as of early 2013, 34 of the world’s low- and middle-income countries had adopted biometric technology as part of their voter identification system. For instance, different kinds of biometric infrastructure have been used in some African States like Ghana, Mali, Kenya, Cameroon, Sierra Leone, Mozambique, Zambia, Malawi, Rwanda, Senegal and Mauritania, with varying degrees of success, to improve transparency in recent elections.

One of the real issues about the 2015 General Elections in Nigeria was the use of innovative anti-rigging biometric devices. The administration of the elections witnessed the use of Smart Card Reader (SCR) for the authentication of biometric Permanent Voters’ Cards (PVCs) and the accreditation of voters. The introduction of these devices was necessitated by the fact that reliable voter register and identification mechanism are some of the preconditions for free, fair and credible elections. However, the legality of the device was questioned. Although Section 52 of the Electoral Act, 2010 (as amended) proscribes electronic voting (e-voting), the SCR is a form of identification, not a means of casting a ballot. The use of the SCR in some quarters experienced glitches in its functionality, thereby leading to manual accreditation of some voters. This attracted negative reactions which consequently fuelled the erroneous

conclusion that the Nigerian electoral system is not ripe for the application of such technology. However, it emboldened many disenfranchised voters to exercise their franchise because of the assurance and confidence that the new system brought.

The role of biometric voting technology in improving free, fair and credible elections has not attracted much attention in the literature, but has been widely acknowledged by officials of EMBs and pro-democracy activists. This paper, therefore, examines the contributions of the SCR in improving the credibility of the 2015 General Elections in Nigeria. Following immediately after the introduction are the cybernetics model of communications theory, overview of electoral fraud in Nigeria since 1999, use of card reader and the credibility of the 2015 General Elections in Nigeria, the introduction of biometric voting machinery and confidence building among stakeholders in Nigeria's elections, use of biometric voting technology and general reduction in election petitions and conclusion.

The Cybernetics Model of Communications Theory

This study employs the cybernetics model of communications theory as a tool for analyzing the role of Information and Communications Technology (ICT), in general and the card reader in particular, in curbing electoral fraud during the 2015 General Elections. The communications theory was developed through the pioneering research efforts of Louis Couffignal, John von Neumann, Norbert Wiener, McCulloch, W. Ross Ashby, Alan Turing, W. Grey Walter and Karl W. Deutsch. In the field of computer technology, cybernetics has become a conceptual relic of communications theory. The significance of Deutsch's *Nerves of Government: Models of Political Communication and Control* lies in that it is the first attempt to formulate a fully developed theory of politics based on a communications model. He particularly introduced the techniques of cybernetics to the sphere of political analysis. However, it was Wiener's work: *Cybernetics* that gave the cybernetics model its analytic fervour. Wiener further popularized the social implications of the model, drawing analogies between automatic systems and human institutions in his work, *The Human Use of Human Beings: Cybernetics and Society*.

Cybernetics is the branch of science concerned with the study of systems of any nature which are capable of receiving, storing and processing information so as to use it for control.

According to Gauba (2003), “cybernetics is the study of the operation of control and communication systems; it deals both with biological systems and man-made machinery” (p. 98). Similarly, “the term cybernetics...covers not only the versions of information theory...but the theory of games, self-controlling machines, computers and the physiology of the nervous system” (Varma, 1975, pp. 432-3). The model is based on a multidisciplinary approach which arose as an offshoot of the Eastonian systems analysis and seeks to explain how actions within a given system generate some changes in its environment. Thus, “the system codes incoming information, recognizes patterns, stores the patterns in its memory unit, learns from its experience, recalls information on command, recombines information in new patterns, and applies stored information to problem-solving and decision-making” (Winner, 1969, p. 9).

The growing complexity of the world has made the use of ICT for administrative purposes a desideratum. Accordingly, Winner (1969) argues that “in a world which has become increasingly complex and bureaucratized, ‘information’ may well provide a form of theoretical shorthand useful for the understanding of how regimes operate and how they tend to break down” (p. 3). The 21st century has been generally characterized as the ‘electric’ or ‘jet’ age in order to underscore the pervasiveness of computer technology in different spheres of human existence. Hence, the practice of politics has increasingly involved the use of electronic mass media, mobile telephony and high-speed digital computers. As an activity in which men and machines participate hand-in-circuit, it is not surprising that the cybernetics model should become plausible as a basis for understanding electoral democracy. Men, machines, and political units all dispose of information from their environments in essentially the same manner. They act on certain varieties of messages and reject others. Progress has now been greatly accelerated by the use of digital computers as a new instrument for stating and testing theories. One of the earliest studies on voting decisions where the cybernetics model was applied is *The American Voter* where Angus Campbell led other researchers to give sophisticated accounts of how computer technology influences electoral processes.

It is pertinent to note that the model is designed to elucidate understanding of the desirability of achieving credible electoral democracy within the electronic womb of computer technology. Thus, advances in ICT, especially through various social media platforms,

appreciably improved the transparency and credibility quotient of the 2015 General Elections in Nigeria. Through Facebook, Twitter, Blackberry Messenger, YouTube, Skype, GSM, SMS, among others, many voters, especially the youths, were mobilized and sensitized on the need for registering, collecting their PVCs and actually voting for candidates of their choice. Moreover, these platforms were used to frustrate criminal attempts to disrupt elections in polling booths and collation centres. Accordingly, Momodu (2014) argues that relying on election rigging is becoming obsolete and increasingly difficult as social media and mobile telephony are breaking down those walls that aided electoral malfeasance in the recent past. More significantly, the use of SCR— a digital computer-based authentication device— for verification of the biometric PVCs, accreditation of voters and counting of votes during the elections boosted the overall credibility of the exercise. The outcome of the March/April 2015 General Elections as a consequence of deployment of the anti-rigging device has restored the confidence of most Nigerian voters and international partners in INEC as well as accounted for the significant reduction in the volume of election petitions filed at the tribunals.

Overview of Electoral Fraud in Nigeria since 1999

The return to civil rule in Nigeria on May 29, 1999 is a product of two futile attempts by Generals Ibrahim Babangida and Sani Abacha to transit to civil rule. In the quest to actualize the self-succession bid of General Abacha, the National Electoral Commission of Nigeria (NECON)— the then EMB— registered five political parties on September 30, 1996. These parties, widely described as ‘Abacha parties’, adopted General Abacha as their consensus candidate for the presidential election. Sequel to the sudden death of Abacha in June 1998 and the emergence of General Abdulsalami Abubakar as the Head of State, a new political transition programme was unveiled on July 20, 1998. Accordingly, May 29, 1999 was declared as handover date. Mbah & Nwangwu (2014) observe that “the new regime cancelled all hitherto scheduled elections, dissolved NECON and the five political parties, freed all detainees, dropped charges against exiles, and made commitment to respect human rights” (p. 160). They further note that the election timetable released by NECON’s successor, INEC, on August 25, 1998, indicated that voters’ registration was slated for October 5-19, 1998; Local Government Elections, December 5, 1998; Governorship/State House of Assembly (SASS) Elections, January

9, 1999; National Assembly (NASS) Elections, February 20, 1999, and Presidential Elections, February 27, 1999.

The Abubakar-led transition programme (June 1998—May 1999) was the shortest in Nigeria's political history. The programme opened the floodgate for party registration. The electoral guidelines released by INEC stated, among other things, that any party that would eventually be registered must score at least a minimum of 5% of the total number of votes in at least 24 states in the December 1998 Local Government Elections. Having fulfilled this and other conditions, the Alliance for Democracy (AD), the All Peoples Party (APP) and the Peoples Democratic Party (PDP) were granted full and final registration by INEC as the three parties that qualified to participate in the remaining elections of the transition programme.

On January 9, 1999, Governorship and SASS Elections were held nationwide. The results were not fundamentally different from the pattern the Local Government Elections of December 5 took. The PDP maintained its lead by winning 21 governorship seats; APP won 9 while AD dominated the South-West by winning the 6 states in the region. Elections into SASS also showed the same pattern of victory by the parties. Subsequent elections into the NASS equally followed the same pattern of victory with the PDP winning 61 senatorial seats and majority seats in the House of Representatives. It was followed by the APP and AD which won 21 and 19 senatorial seats respectively. Due to the dominance of the PDP in all previous elections, the scene was set for an easy win for any presidential candidate presented by the party. Consequently, the AD and APP fashioned out an alliance to checkmate the unchallenged popularity of PDP. At the end of voting, PDP won the presidential election with Chief Olusegun Obasanjo emerging as the President and Commander-in-Chief of the Armed Forces.

The process for conducting the 1999 General Elections and the overall outcome were more acceptable and relatively less outrageous than the successive elections of 2003, 2007 and 2011. Although there were isolated sharp practices and irregularities as reported by Transition Monitoring Group (TMG), the Carter Centre, National Democratic Institute (NDI), International Republican Institute (IRI), and the European Union Election Observer Mission (EU EOM), AD and APP candidates could not mobilize substantial evidence to reverse the trend.

Nonetheless, the situation during the 2003 General Elections conducted by the administration of President Obasanjo was markedly different. The elections were so replete with irregularities and violence that observers described them as the most fraudulent in the annals of the country. Legal opinions maintained that the April/May 2003 elections conducted under the contentious Electoral Act 2002 should be rendered null and void. This flows from the fact that the Act was found to be inconsistent with the 1999 Constitution of the Federal Republic of Nigeria. According to Nwabueze (as cited in Okolie, 2005), “the April/May 2003 General Elections, being a proceeding or act founded on a law that is a nullity are themselves a complete nullity” (p. 439). Thus, the tendency of the political leadership to flout and subvert the rule of law with impunity laid foundation for the flagrant irregularities and monumental fraud perpetrated during the elections. The elections were characterized by violence, intimidation and use of coercive apparatuses of the state to commit acts of rigging, suppression and disenfranchisement of eligible voters (Okolie, 2005).

Both domestic and international election observers in their various reports admitted that there were massive electoral malpractices during the general elections. A statement issued by a coalition of civil society groups in Nigeria indicates that in many polling stations across the country, after balloting, results were declared at some polling stations, while in others there was a conscious decision by electoral personnel not to declare the result. Whether declared or not, these results were manipulated by electoral officers and party officials at collation centres. This was the situation in many Local Government Areas in Anambra State– Njikoka, Aguata, Onitsha and Nnewi; Imo State– Owerri North-East, Orlu; and widespread in Rivers, Enugu and Delta States. Comparison of results declared at these polling stations and recorded by the observers also show substantial discrepancies (Okolie, 2005). Similarly, the findings of the EU EOM corroborated the foregoing reports on the general elections when it branded the election as a fraudulent selection exercise rather than a democratic election. All the 28 opposition presidential candidates and their respective party chairmen addressed several press conferences rejecting the results of the elections. The presidential candidate of ANPP, General Muhammadu Buhari (as cited in Odeh, 2003) described the elections as the most fraudulent Nigeria had had since independence and, therefore, called for their cancellation and the constitution of interim government to take over from May 29, 2003. Ezeani (2005) identified other electoral

misconducts perpetrated by INEC and its unscrupulous officials to include unlawful possession of ballot papers and boxes, unlawful possession of authorized and unauthorized voters' cards, stealing ballot box keys, stuffing of ballot boxes, forgery of results, falsification of result sheets, tampering with ballot boxes, collusion with party agents to share unused ballot papers for fat financial rewards, inconsistent application of INEC's procedures across the country *et cetera*.

The declining quality of Nigerian elections is increasingly seen as a threat to democratic consolidation. The 2007 General Elections were the third in the series that map Nigeria's democratization since 1999. The elections offered another opportunity for change and power turnover in the country. However, judging by the overall quality and outcomes of the elections, the expectations of many Nigerians and international partners were dashed. The elections were marred by massive irregularities as reported by different accredited election observers like the TMG, Carter Centre, NDI, IRI, and EU EOMs. The results of the elections were bitterly contested in an unprecedented but largely non-violent manner. According to Aiyede (as cited in Omotola, 2010), "from the conduct of the elections alone, 1,250 election petitions arose. The presidential election had 8, the gubernatorial 105, the senate 150, the House of Representatives 331, and the State Houses of Assembly 656" (p. 549). With a few exceptions, especially the gubernatorial elections in Osun and Ekiti States, most of these cases were decided in the final appellate court. For example, the two leading opposition candidates in the presidential election pursued their cases to the Supreme Court where the case was decided in favour of President Umaru Musa Yar'Adua of the PDP. However, results were annulled in several states and at different levels, including the gubernatorial elections in Kogi, Edo, Kebbi, Sokoto, Adamawa, Ekiti and Ondo States. In most of these cases, a re-run was conducted, which the PDP won save for Ondo and Edo States where declaratory judgments were given, leading to the restoration of the electoral victory of the Labour Party and Action Congress in the respective states.

The 1,250 election tribunal and court cases recorded are just the tip of the iceberg. This is so when elections are considered to be a combination of pre-election, election and post-election events. Thus, in an astonishing revelation, Lawal (2008) notes that "the 2007 elections recorded an alarming 6,180 cases throughout the electoral process" (p. 1). This may be correct given the high level of impunity that characterized the political scene. The most relevant example relates to

the manipulation of party primaries to pave the way for anointed candidates of the godfathers, especially within the ruling PDP. Also, as a proof of its weak institutionalization, INEC was unabashedly enmeshed in barefaced political partisanship. The Commission was severely distracted by its demeaning stance of serving as a tool in the hands of President Obasanjo to stop the presidential bid and candidature of the Vice-President, Alhaji Atiku Abubakar. However, INEC was stopped from disqualifying Atiku through the Justice Iorgyer Katsina-Alu-led Supreme Court judgement of April 16, 2007 which ruled that the Commission has no powers to disqualify candidates already cleared by their political parties.

The maladministration of the 2007 General Elections intensified civil activism for electoral reform and pressured the government to grant some limited concessions. Civil society organizations, pro-democracy forces and opposition political parties fought relentlessly for a comprehensive reform of the electoral system. For example, the Electoral Reform Network and the Centre for Democracy and Development— shining examples of credible election advocacy groups— submitted memoranda to the Mohammed Uwais Electoral Reform Committee and also followed them up in the National Assembly (Omotola, 2010). The changes in the leadership of INEC, including the removal of the controversial and discredited Maurice Iwu and his replacement with Professor Attahiru Jega— a leading political scientist, trade unionist and pro-democracy activist— are some of the gains of the Uwais reform process.

Arising from the implementation of the electoral reform by Yar'Adua/Jonathan administration, the 2011 General Elections were relatively credible, free and fair. Preparation for the elections began as far back as August 2009 with a strategic retreat by INEC in Abuja. This came against the backdrop of a number of challenges that confronted the Commission. One of these was the credibility gap, especially those that arose from the conduct of the 2003 and 2007 General Elections. To overcome these challenges, the first step taken by the Federal Government was to build public confidence on the credibility of the 2011 elections through the appointment of Professor Jega as the new INEC helmsman. According to Oladimeji, Olatunji & Nwogwugwu (2013), “the Commission significantly improved the conduct of the elections, creating a new voters’ register, improving transparency in reporting results, and publicly pledging to hold accountable those who broke the rules” (p. 114). Elections were held in most areas of the country

in a largely peaceful atmosphere, with fewer reported incidents of violence or blatant police abuses than in previous years. Despite the improvements, there were still incidents of violence, reports of police misconduct, voter intimidation, hijacking of ballot boxes by party thugs, ballot box stuffing, vote buying, multiple voting, over voting, underage voting, falsification of results and other associated electoral irregularities (Oladimeji, Olatunji & Nwogwugwu, 2013). The outcome of the presidential election also led to the eruption of post-election violence with the attendant destruction of valuable lives (including those of some members of the National Youth Service Corps) and property in states like Bauchi, Gombe, Kaduna, Kano, among others. Corroborating the above, National Democratic Institute holds that “the violence...caused over 800 deaths and substantial destruction of property” (NDI, 2015, p. 6). It is pertinent to note that the outbreak of violence was not only as a result of poor handling of the elections by INEC but also a practical expression of frustration and disappointment as well as a demonstration of the ‘do or die’ attitude of the political elite to electoral contests. Utterances of some of the candidates that lost and the general inability of politicians to accept defeat did not help matters. Thus, INEC (n.d) surmises that “the painstaking approach to the 2015 General Elections is informed by its perception that the 2011 polls, though qualitatively better than many previous elections, was by no means perfect” (p. vi).

Use of Smart Card Reader and the Credibility of the 2015 General Elections in Nigeria

The 2015 General Elections in Nigeria was the 5th quadrennial election to be held since the end of military rule in 1999. The successful conduct of the 2011 General Elections marked a watershed in Nigeria’s democratic trajectory, as it contrasted sharply with the mismanagement and widespread fraud of previous polls. At the end of the voter registration exercise in 2011, INEC had claimed that a total of 73 million Nigerians had registered out of which the Automated Fingerprint Identification System had removed 800,000 persons for double registration (Aziken, 2015). Thus, determined to improve the outcome of the 2011 polls, INEC introduced technological innovations which were used to curb electoral fraud. These included a biometric PVC and card reader machine used to verify the authenticity of the PVC and also carry out a verification of the intending voter by matching the biometrics obtained from the voter on the spot with the ones stored on the PVC. The 2011 voters’ register— Nigeria’s first electronically

compiled register— helped in the production of the PVCs that were used in the 2015 General Elections. The card reader is designed to read biometric information in the embedded chip of the PVC. It displays voters’ names and facial images, and authenticates their fingerprints. The deployment of the device ensured that each elector only voted in the ward where he or she was registered. Although technology does not offer solution to all forms of electoral malpractice, the use of the SCRs made it more difficult to brazenly rig the 2015 General Elections.

On March 7, 2015, INEC test-ran the reliability of the biometric technology in 225 out of the total 120,000 polling units and 358 out of the 155,000 voting centres that were used for the elections (Idowu, 2015). The test-run of the device took place in 12 states namely: Rivers and Delta (South-South), Kano and Kebbi (North-West), Anambra and Ebonyi (South East), Ekiti and Lagos (South West), Bauchi and Taraba (North East) as well as Niger and Nasarawa (North Central). While acknowledging the challenges of the device in confirming fingerprints, the Commission expressed satisfaction that the basic duty of the card reader— to authenticate the genuineness of PVCs— was in almost all cases achieved. According to a press release by Mr. Kayode Idowu, the Chief Press Secretary to INEC Chairman, the decision to deploy SCRs for the 2015 General Elections have four main objectives.

- i. To verify PVCs presented by voters at polling units and ensure that they are genuine, INEC-issued (not cloned) cards. From the reports on Saturday’s exercise, this objective was achieved 100%.
- ii. To biometrically authenticate the person who presents PVC at the polling unit and ensure that he/she is the legitimate holder of the card. In this regard, there were a few issues in some states during the public demonstration. Overall, 59% of voters who turned out for the demonstration had their fingerprints successfully authenticated.
- iii. To provide disaggregated data of accredited voters in male/female and elderly/youth categories— a disaggregation that is vital for research and planning purposes, but which INEC until now had been unable to achieve. The demonstration fully served this objective.
- iv. To send the data of all accredited voters to INEC’s central server, equipping the Commission to be able to audit figures subsequently filed by polling officials at the polling units and, thereby, be able to determine if fraudulent alterations were made. The public demonstration also succeeded wholly in this regard (Idowu, 2015 <http://inecnigeria.org/inecnews>).

As a consequence of the 41% failure rate in (ii) above, the Commission, in agreement with registered political parties, provided that where biometric authentication of a legitimate holder of a genuine PVC becomes challenging, there could be physical authentication of the person and completion of an Incident Form, to allow the person to vote.

Responding to opposition to the use of the biometric technology, Mohammed notes that:

Nigerians have sacrificed all they can to obtain their PVCs, which are now their most-prized possession. They have also hailed the plan by INEC to use the card reader to give Nigeria credible polls. Only dishonest politicians, those who plan to rig, those who have engaged in a massive purchase of PVCs and those who have something to hide are opposed to use of the machine (cited in Adeyemi, Abubakar & Jimoh, *The Guardian*, March 5, 2015).

In corroboration, Professor Jega (as cited in Oche, 2015) maintains that it was only those that hitherto nurtured plans to fraudulently manipulate the outcome of the elections that were crying foul over the introduction of the technology.

As observed earlier, the use of the biometric machine during the elections was characterized by malfunctions. These ranged from limited or non-verification of voters' fingerprints even after authenticating their PVCs, slow accreditation process as a result of poor internet server operations in some locations to inadequate knowledge of the use of card readers by both INEC officials and voters. These hitches were more rampant during the March 28 Presidential and NASS Elections because some of the polling officers were handling the machine for the first time and failed to peel off the nylon films covers of the lenses to enable accurate biometric reading. Thus, the March 28 elections were characterized by situations whereby:

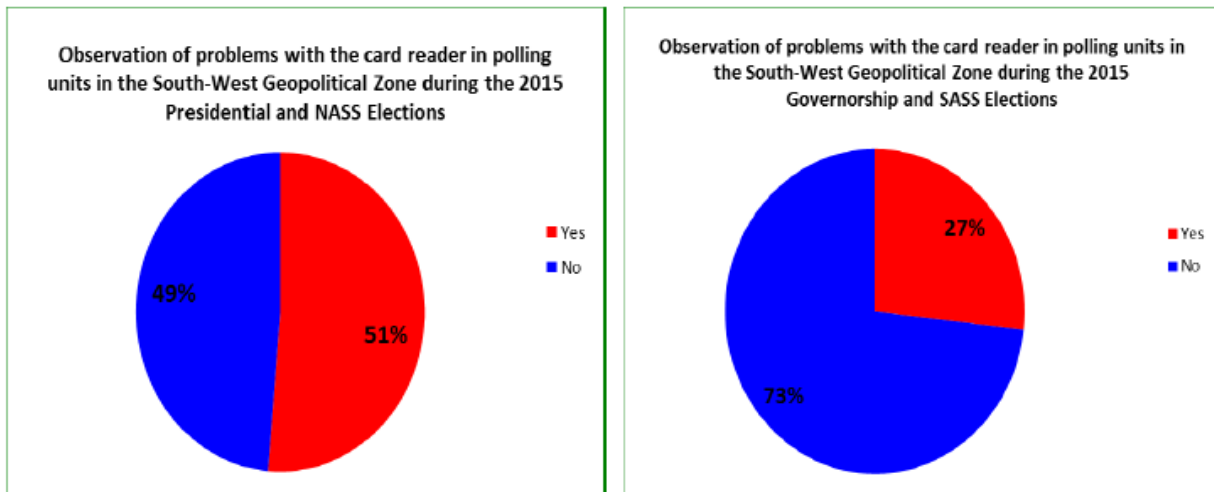
electronic readers of biometric PVCs failed to verify fingerprints in many instances and resulted in delays in voter accreditation in a high number of polling stations. Where fingerprint scanning failed, there did not appear to be uniform understanding of contingency planning among polling officials, including requirements for large-scale manual verification of voters' identities against the printed voter registry and the issuance of Incident Forms. When Incident Forms were diligently completed by INEC officials, accreditation was often delayed even further due to the time required to fill out a form for each voter whose fingerprints could not be read (NDI, 2015, p. 3).

Generally, the problems observed with the card readers during the 2015 General Elections are under-listed:

- ❖ there were cases of fingerprint and even PVC rejection, especially of cards brought from other polling units;
- ❖ a number of fingerprint rejections were among the elderly;
- ❖ there were cases of card readers not working at all;
- ❖ there were delays in using the card readers in some polling units;
- ❖ network failure;
- ❖ there were cases where voters' pictures did not appear on card reader;
- ❖ some of the card readers functioned slowly and did not pick up on time;
- ❖ some card readers were not very sensitive to thumbprints;
- ❖ some card readers rejected their passwords initially;
- ❖ there were a few cases of low battery strength and in some instances the batteries were completely drained;
- ❖ there was a case where the card reader did not correspond with the manual;
- ❖ some card readers stated card mismatch information;
- ❖ some of the card readers had incorrect setting; and
- ❖ during the Governorship and SASS Elections, some card readers still had data from the March 28 elections on them (Election Monitor, 2015, pp. 46-47).

Most of these hitches as reported by Election Monitor characterized the Presidential and NASS Elections. INEC as an institution improved significantly from the March 28 to the April 11 elections in the area of logistics, materials provision and mastery of the biometric technology by polling officers. The Commission was able to correct its mistakes of March 28 to deliver freer, fairer and more credible Governorship and SASS Elections. With particular reference to the South-West geo-political zone, the failure rate of SCRs dropped significantly after the Presidential and NASS Elections as shown in Figures I below.

Figure I: Rate of Failure of Card Reader during the 2015 General Elections



Source: Adapted from Election Monitor (2015). *2015 General Elections observation report*. A Publication of Election Monitor.

While the use of the biometric technologies did not entirely make the elections free and fair, they however, accounted for their credibility. Despite challenges, especially in fingerprint verification, the card readers contributed in curbing electoral fraud. In his post-election assessment, Professor Jega maintained that:

we have made rigging impossible for them (electoral fraudsters) as there is no how the total number of votes cast at the polling unit could exceed the number of accredited persons. Such discrepancy in figures will be immediately spotted. This technology made it impossible for any corrupt electoral officer to connive with any politician to pad-up results. The information stored in both the card readers and the result sheets taken to the ward levels would be retrieved once there is evidence of tampering.... (cited in Oche, *Leadership*, April 5, 2015).

The credibility of the elections, arising from the use of the anti-rigging technology, is also deducible from the fact that it is the first time in the electoral annals of Nigeria that many candidates would concede defeat and call to congratulate the winners. This happened first at the national level when President Goodluck Jonathan called to congratulate General Muhammadu Buhari on March 31, 2015. This exemplary conduct was emulated by defeated PDP governorship candidates in Niger, Benue, Adamawa, Lagos, Kaduna and Oyo States. It was also the first time so many incumbent governors would lose their senatorial ambitions to opposition party candidates. This happened in Adamawa, Bauchi, Benue, Niger and Kebbi States.

Moreover, contrary to the suggestion that “the country is heading towards a very volatile and vicious electoral contest” (International Crisis Group, 2014, p. i) and CLEEN Foundation’s Report of April 2014 that 15 states in Nigeria were “most volatile” and “prone to electoral violence”, there was no pronounced violence anywhere, except in Rivers and Akwa Ibom. The elections in the entire Northern and South Western Nigeria were generally peaceful. Observer missions deployed from the African Union (AU), Commonwealth of Nations, Economic Community of West African States (ECOWAS) and the EU, among others, in their interim reports, also attested to the credibility of the elections.

The Introduction of Biometric Voting Machinery and Confidence Building among Stakeholders in Nigeria’s Elections

As has been shown earlier, prior to the 2011 General Elections, election administrations in Nigeria were fraught with monumental electoral irregularities. In the run up to the 2015 General Elections, many Nigerians and international development partners expressed doubts about the capacity of INEC to successfully conduct transparent, free, fair and credible elections. These doubts were necessitated by the prevalence of incendiary utterances and calumnious documentaries that targeted the personalities of the leading presidential candidates during the electioneering period. The bellicose rhetoric and hate speeches were seen as harbinger of election-related violence. Thus, in their separate reports, the International Crisis Group, CLEEN Foundation and the National Human Rights Commission (NHRC) predicted gloomy electoral outcomes for the country. In particular, the Foundation reported that Adamawa, Benue, Borno, Ebonyi, Ekiti, Enugu, Imo, Kaduna, Nasarawa, Osun, Plateau, Rivers, Taraba, Yobe and Zamfara States were most volatile and prone to violence (CLEEN Foundation, 2014). On the other hand, the Commission reported that “Lagos (South-West), Kaduna (North-West) and Rivers (South-South) States present the three most worrying trends and locations predictive of a high likelihood of significant violence during the 2015 elections” (NHRC, 2015, p. 6).

Nonetheless, the above-average performance by the security agencies, success of civic education and the introduction of biometric devices by INEC built confidence and positive disposition of Nigerians, EOMs and development partners in the capacity of the Commission. The disposition of many Nigerian voters towards the novel anti-rigging technology was amply

demonstrated through their level of participation during the elections. This confidence was based on their conviction that their votes would not only be counted, but actually did count. In its interim report, the NDI (2015) notes that:

the elections highlighted strong and enthusiastic commitment of Nigerians to democratic processes and the possibility of determining the leadership of the country through peaceful, transparent and credible elections....Nigerian voters conducted themselves in a peaceful and orderly manner on election days and politicians across the spectrum should recognize and respect this public manifestation of citizens' commitment to the democratic process (p. 2).

Although voters' turnout varied across different geo-political zones and polling units in the country, there were long queues of enthusiastic voters who conducted themselves in largely peaceful manner. In many instances, during the period before the arrival of poll workers and materials, citizen volunteers organized the crowd by handing out slips of paper with numbers in the order in which voters arrived so as to facilitate crowd control and orderly conduct once the accreditation process began (NDI, 2015). The report also indicates that high number of women and youth were well represented in voting lines on election days. In most cases, special consideration was given to pregnant and nursing women, the aged and persons with disabilities in order to facilitate speedy accreditation and voting. For the most part, in the polling sites in which card readers did not properly capture fingerprints, voters remained generally patient and calm. Even among those who were displaced through the coordinated attacks of Boko Haram insurgents in Adamawa, Borno and Yobe States, the desire to participate in the electoral process remained resonate. According to Election Monitor (2015):

states with the highest voter turnout were Akwa-Ibom, Rivers, Bayelsa, Delta and Jigawa all having above 60% voter turnout. The state with the lowest voter turnout was Lagos State. Other states with relatively low turnout of voters are Ogun, Edo, Anambra, Abia, Kogi, Borno and FCT (30 to 39%). The national average voter turnout is 47% when considering those who came out for accreditation (p. 82).

The Table below shows the overall voters' turnout from the 36 states of the Federation and the Federal Capital Territory (FCT) during the 2015 Presidential & NASS Elections.

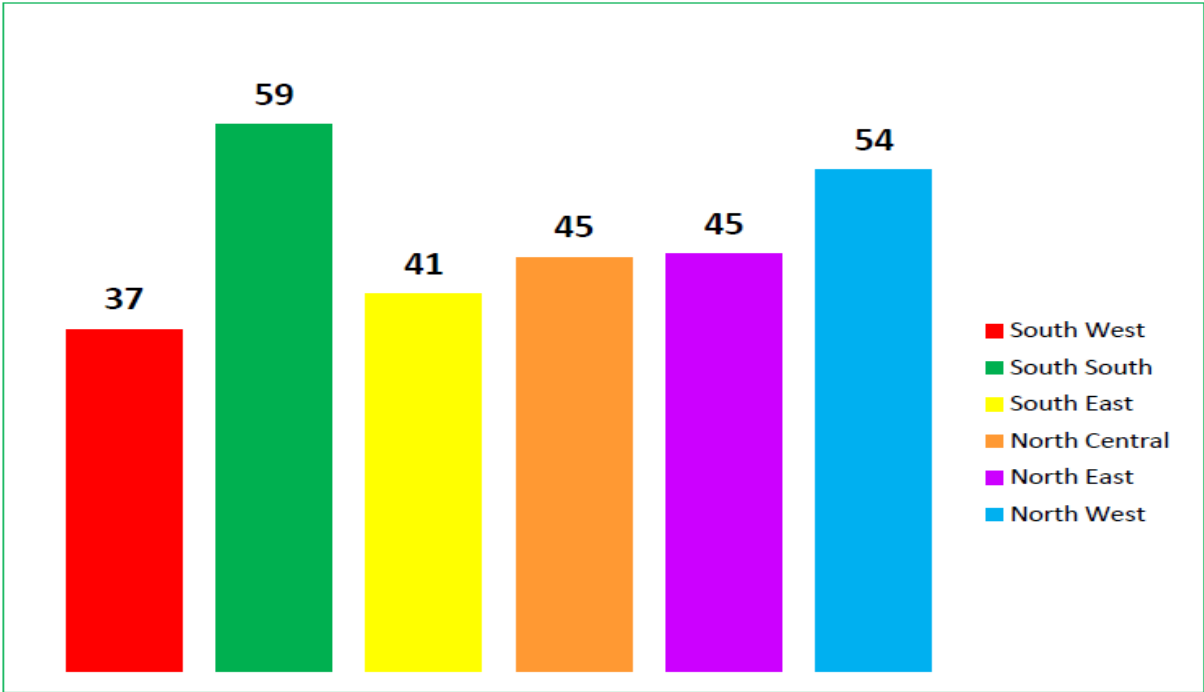
Table I: Voters' Turnout from the March 28, 2015 Presidential & NASS Elections

S/N	Name of States	No of Registered Voters	No of Accredited Voters	% Voters' Turnout
1	Abia	1,349,134	442,538	33
2	Adamawa	1,518,123	709,993	47
3	Akwa Ibom	1,644,481	1,074,070	65
4	Anambra	1,963,427	774,430	39
5	Bauchi	2,053,484	1,094,069	53
6	Bayelsa	605,637	384,789	64
7	Benue	1,893,596	754,634	40
8	Borno	1,799,669	544,759	30
9	Cross River	1,144,288	500,577	44
10	Delta	2,044,372	1,350,914	66
11	Ebonyi	1,071,226	425,301	40
12	Edo	1,650,552	599,166	36
13	Ekiti	723,255	323,739	45
14	Enugu	1,381,563	616,112	45
15	Gombe	1,110,105	515,828	46
16	Imo	1,747,681	801,712	46
17	Jigawa	1,815,839	1,153,428	64
18	Kaduna	3,361,793	1,746,031	52
19	Kano	4,943,862	2,364,434	48
20	Kastina	2,842,741	1,578,646	56
21	Kebbi	1,457,763	792,817	54
22	Kogi	1,350,883	476,839	35
23	Kwara	1,181,032	489,360	41
24	Lagos	5,827,846	1,678,754	29
25	Nasarawa	1,222,054	562,959	46
26	Niger	1,995,679	933,607	47
27	Ogun	1,709,409	594,975	35
28	Ondo	1,501,549	618,040	41
29	Osun	1,378,113	683,169	50
30	Oyo	2,344,448	1,073,849	46
31	Plateau	1,977,211	1,076,833	54
32	Rivers	2,324,300	1,643,409	71
33	Sokoto	1,663,127	988,899	59
34	Taraba	1,374,307	638,578	46
35	Yobe	1,077,942	520,127	48
36	Zamfara	1,484,941	875,049	59
37	FCT	886,573	344,056	39
	TOTAL	67,422,005	31,746,490	

Source: Adapted from Election Monitor (2015). *2015 General Elections observation report*. A Publication of Election Monitor.

Election Monitor further reports that on a geo-political zone basis, the South-South had the greatest voter turnout with 59% closely followed by the North-West with 54%. The South-West had the lowest turnout in the country with just 37%. Figure II below shows the percentage of voters' turnout per geo-political zone. Expectedly, the regions that produced the two leading presidential candidates had the two highest levels of voters' turnout. The average national voters' turnout in the 2015 General Elections was 47%. In relation to the average voters' turnout of 52.2%, 64.8%, 57.2% and 52% for 1999, 2003, 2007 and 2011 respectively, it is evident that voters' turnout has been falling while voter registration has been increasing. However, figures for previous voters' turnouts are actually inaccurate due to fraud and manipulation that characterized the elections.

Figure II: Percentage of Voters' Turnout per Geo-political Zone



Source: Election Monitor (2015). *2015 General Elections observation report*. A Publication of Election Monitor.

Moreover, reports from accredited domestic and international EOMs unanimously described the elections as peaceful and generally credible. Among others, the observers attributed the credibility of the elections to INEC's insistence on the use of the PVCs and SCR

for the elections. The observers particularly applauded Nigerian voters for their maturity, orderliness and commitment towards the success of the polls. According to the Commonwealth EOM's report, the elections mark an important step forward for democracy in Africa's most populous country and a key member of the Commonwealth. Notwithstanding the organizational and technical deficiencies, the conduct of the elections was generally peaceful and transparent (Ndujihe & Kumolu, 2015). In the same vein, the former Ghanaian President and Head, ECOWAS EOM, Mr. John Kufuor, reports that Nigeria's feat with regard to the elections is a pride, not only to Nigerians, but also to West Africa and the whole of the African continent. Similarly, the United States Government notes that the peaceful conduct of the elections had demonstrated to the world the strength of Nigeria's commitment to democratic principles. By turning out in large numbers, and sometimes waiting all day to cast their votes, Nigerians have come together to decide the future of their country peacefully (Adamu, 2015). President Barack Obama particularly praised INEC and Professor Jega for what independent international observers deemed largely peaceful and orderly elections. Thus, the president of Voters' Awareness Initiative, Wale Ogunade, surmised that INEC Chairman and his team have gained 80% confidence of Nigerians as a result of the deployment of technology-based approach in handling the elections (*Sunday Independent*, April 26, 2015).

As a corollary, the three principal genres of development partners that work with INEC, through their EOMs, equally affirmed the credibility of the elections. These development partners as shown in Table II are embassies and high commissions, multilateral development agencies and foundations. The Commission is fortunate to work with these partners in pursuit of its onerous primary objective of conducting free, fair and credible elections. The bulk of supports from these partners are found in four main areas namely: technical assistance, support for training, experience sharing and support for retreats.

Table II: Classification of INEC's Development Partners

Embassies	<ul style="list-style-type: none"> ❖ Indian Embassy ❖ US Embassy ❖ British High Commission ❖ Canadian High Commission ❖ Japanese Embassy
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	❖ South Korean Embassy
Multilateral Development Agencies	❖ Joint Donor Basket Fund/UNDP ❖ Commonwealth Secretariat, London ❖ World Bank ❖ Department for International Development (DFID) ❖ European Union (EU) ❖ African Union (AU) ❖ ECOWAS
Foundations and other Agencies	❖ Ford Foundation ❖ MacArthur Foundation ❖ OSIWA-OSJI ❖ Friedrich Ebert Stiftung (FES) ❖ International Foundation for Electoral System (IFES) ❖ International Republican Institute (IRI) ❖ International IDEA

Source: INEC (n.d.). *Report on the 2011 General Elections*. A Publication of INEC.

Arising from the EOMs' unanimous acclamation of the outcome of the 2015 General Elections, these international development partners not only repose more confidence in INEC and Nigeria's elections but are keener to partner with the Commission in order to ensure that future elections in the country are truly free, fair and credible. Moreover, the goodwill gesture of some of these development partners to Nigeria has been demonstrated through the request of the Group of Seven (G-7) most industrialized countries asking General Muhammadu Buhari to prepare a 'wish list' and come with it for its consideration during its 41st Summit held between June 7 and 8, 2015 in Bavaria. Thus, the Outreach Programme for invited heads of government and global institutions offered President Buhari the opportunity to meet with Angela Merkel, Barack Obama, Francois Hollande, David Cameron, Stephen Harper, Shinzo Abe, Jim Yong Kim, Ban Ki Moon, Angel Gurria, Christine Lagarde and Guy Rider of Germany, USA, France, UK, Canada, Japan, the World Bank Group, the United Nations, the Organization for Economic Cooperation and Development, the International Monetary Fund and the International Labour Organization respectively. Needless to say, this gesture is a demonstration of these partners' confidence in the electoral process that produced the present government in Nigeria.

Use of Biometric Voting Technology and General Reduction in Election Petitions

Elections in Nigeria are coterminous with brinkmanship and legal fireworks. Post-election dispute resolution is, therefore, a key activity which brings a final closure of the electoral process. Both the 1999 Constitution and the 2010 Electoral Act create the necessary ambience for election petition tribunals to adjudicate on petitions filed by complainants against the conduct of elections. Thus, the court is the only institution after the Commission that can determine the winner of an election or review and reverse the pronouncement of the Returning Officer on a poll.

Prior to the 2015 General Elections, the Chief Justice of Nigeria— Mahmud Mohammed— on February 3, 2015 inaugurated 242 judges who were selected to serve at various elections petition tribunals. The Chief Justice in constituting the tribunals was obviously envisaging the likelihood of aggrieved candidates and parties seeking judicial redress. Under Section 134 of the Electoral Act 2010, all petitions must be filed within 21 days of the declaration of the result of an election. Unlike the 1999, 2003, 2007 and 2011 General Elections, the 2015 elections have witnessed a general reduction in election litigations. The total number of petitions filed after the 2003 General Elections was 560. By 2007, the petitions increased to 1,290. A total of 731 elections petitions were filed at the various Election Petition Tribunals across the Federation after the 2011 General Elections (INEC, n.d.). However, the electoral reforms of the Yar'Adua/Jonathan administration largely accounted for the significant reduction in petitions filed in 2011 to 731. Table III summarizes all the elections petitions filed after the 2011 elections.

Table III: Summary of the 2011 Election Petitions

S/N	Election	Number
1	Presidential	2
2	Governorship	53
3	House of Senate	90
4	House of Representatives	208
5	State Houses of Assembly	378
7	Total	731

Source: INEC (n.d). *Report on the 2011 General Elections*. A Publication of INEC.

Although data on the exact number of petitions filed at the tribunal after the 2015 General Elections is still sketchy, it would not amount to hasty generalization to argue that there is a significant reduction in the volume of election petitions filed across the country. Following the expiration of the 21 days statutorily allowed for petitions after the declaration of results, there was no petition filed at the Presidential Election Petition Tribunal (Appeal Court) which has original jurisdiction according to Section 239 (1) (a) of the 1999 Constitution. This is a radical departure from the past elections of 2003, 2007 and 2011 in which the results of the presidential elections were contested from the Appeal Court to the Supreme Court. President Jonathan of PDP had conceded defeat and congratulated General Muhammadu Buhari on March 31, 2015. Arguably, this is a mark of confidence in the credibility of the elections which witnessed significant reduction in electoral fraud.

This exemplary conduct of President Jonathan was emulated by many defeated PDP governorship and NASS candidates in states like Niger, Benue, Adamawa, Lagos, Kaduna and Oyo among others. Unlike in the 1999, 2003, 2007 and 2011 elections, there have not been avalanche of electoral petitions in 2015. However, some governorship, national and state assembly candidates have filed petitions at the various designated tribunals. A breakdown of the petitions shows that the South-South and South-East geopolitical zones have so far recorded the highest cases of about 95 and 93 petitions respectively with Delta State topping the chart in the South-South with 40 petitions while Imo takes the lead in the South-East with 38 cases (Mac-Leva & Ibrahim, 2015). There is virtually no petition from the entire North-West while North-East and North-Central have less than 30 petitions each. This differential cannot be understood outside the fact that there was massive failure of the SCR to read biometric information contained in the PVCs as well as accredit voters in Southern Nigeria. This made the use of manual accreditation inevitable in these regions. Similarly, electoral violence was more pervasive in these areas, especially Akwa-Ibom and Rivers States. The table below was adapted from Mac-Leva & Ibrahim (2015) and shows the volume of election petitions from each zone as at May 10, 2015.

Table IV: Election Petitions from each Zone after the 2015 General Elections

S/N	Geo-Political Zone	Total
1	North-Central	13
2	North-East	23
3	North-West	-
4	South-East	93
5	South-South	95
6	South-West	73
7	Total	297

Source: Mac-Leva, F. & Ibrahim, H. (2015, May 10). 2015 Elections: 297 petitions taken to tribunals. *Daily Trust*. Retrieved from: <http://www.dailytrust.com.ng/sunday/index.php/interview/20653-2015-elections-297-petitions-taken-to-tribunals>.

Conclusion

This paper analyzed the role of biometric voting technology in improving the credibility of the 2015 General Elections in Nigeria. It acknowledged the contributions of core institutional actors like political parties, media, professional groups, civil society organizations, among others, in the entrenchment of democracy in the country. Nevertheless, using the cybernetics model of communications theory, the paper found that the deployment of SCR had rekindled the confidence of many Nigerian voters and that of development partners in INEC and Nigeria's elections. Reports from many accredited media organizations as well as international observers like Commonwealth, EU, AU, ECOWAS, NDI, IRI, International IDEA, IFES EOMs *etcetera* attest to the fact that the elections were peaceful and credible. Although the technology experienced some glitches in its functionality, it largely accounted for the significant drop in the volume of election petitions filed by aggrieved candidates and political parties. This is because of the use of the device for organizing (authentication of PVCs and accreditation of voters) and counting votes (validation of the total votes cast by querying the machine). The paper also found that the governorship, NASS and SASS petitions filed at the tribunals in Abia, Akwa-Ibom, Delta, Ebonyi, Imo, Rivers, Taraba, among others, were due to the general failure or non-use of the SCR for voters' accreditation and PVC authentication in these areas.

Arising from the foregoing, the study recommends as follows:

1. INEC should maintain the usage of the card readers in all subsequent elections. Despite the hiccups associated with the use of the machines, it is very important that their usage

be maintained in all subsequent elections. These elections show that technology has its merit and is the way to go in Nigeria's elections.

2. Accreditation should be done simultaneously with voting. The reason for having accreditation and then voting is to prevent voters who wish to vote at more than one polling unit on election day from doing so. The card reader makes it impossible to get accredited in two places (card reader only works with PVC specifically programmed for that unit). For this reason, there is no major reason to continue separating the two activities especially since the card reader has addressed this issue.
3. INEC should embark on full implementation of e-voting and other technology-based approach to elections administrations. To achieve this, however, the Commission should work with the NASS to get Section 52 of the Electoral Act 2010 amended. It is also important to test-run the e-voting on smaller mid-season elections in Bayelsa, Kogi, Edo, Anambra, Ekiti and Osun States before the main deployment of 2019. Only a phased implementation would give maximum impact.

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