
Biometric Voting Technology And The Conduct Of Elections: Lessons From The 2015 And 2019 General Elections In Nigeria.

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Abstract: *This paper examines the role of biometric voting technology on the conduct of general elections in Nigeria. Qualitative methods of data collection and analysis were adopted for the study while the chaos theory was adopted as the framework of analysis. The study established that the use of biometric voting technology did not contribute to significant reduction in post-election petitions in the 2015 and 2019 general elections in Nigeria. Also, limited or non- verification of voters fingerprints even after authenticating their PVCs and over-voting were rampant. The use of the card readers was evidently problematic, with many malfunctioning and not being able to consistently verify fingerprints resulting in significant disenfranchisement. Over 2.3 million of those that were accredited did not finally cast their ballot. This weakened the integrity of the process. A record of 610 post-election petitions were filed after the 2015 general elections which was less than 16 percent reduction compared to the 731 recorded in the preceding 2011 election. Again, the study established that the malfunctioning of the Smart Card Readers occasioned high increase in inconclusive elections during the 2015 and 2019 general election in Nigeria. Many manual voter identification was undertaken which increased enfranchisement. In many polling units no attempt was made to verify fingerprints. In polling units, card readers were not always able to read PVCs, and in 94% could not always verify fingerprints. This resulted in postponed elections in many House of Representative constituencies. After the 2015 general elections, INEC conducted 2 governorship re-run elections, one council election and over 80 re-run legislative elections across the country. It is therefore recommended that INEC improve on training for regular and adhoc staff on the operation of biometric voting system. The number of judges that attend to postelection petitions should be increased to ensure speedy dispensation of justice. The Federal Government should provide accommodation and transportation logistics for INEC field stall during elections to guarantee timely and effective coverage of the designated polling units.*

Keywords: Elections, Technology, Violence, Voter Turnout, Petitions.

1. INTRODUCTION

Nigeria is one of the important democratic states in Africa that have continued to invest considerable in consolidating and engendering a qualitative electoral democracy. The 2015 and 2019 general election in Nigeria were conducted by the Independent National Electoral Commission (INEC) which is the Election Management Body (EMB) empowered by the 1999 Constitution of the Federal Republic of Nigeria (as amended) to organize, undertake and supervise all elections in Nigeria.

Free, fair and credible elections are central to electoral democracy and provide vital means of empowering citizens to hold their leaders accountable. The historical significance of quality and credible democratic elections is the constitutional assurance that elected and appointed government officials at all levels of the political system will

render periodic account of their stewardship to the people (Ayoade, 1998). However, accountability of public officials in Nigeria has been seriously undermined by the fact that elections in the country are perennially fraught with irregularities and such has continued to retard human progress and development. It has also been unable to address the administrative misconduct of some officials of Nigeria's Election Management Body (EMB) the Independent National Electoral Commission (INEC) (Nwangwu, 2015).

INEC is deficient of institutional, administrative and financial autonomy with attendant lack of professionalism and recurrent political interference (Nwangwu, 2015). 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. 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 and unending post-election disputes in many transitional democracies, especially in Nigeria, has accentuated the clamour for and use of voting technologies for uncovering and reducing election frauds.

Again, during the 2015 and 2019 Presidential and National Assembly elections across the country, the card readers malfunctioned in several polling units, a situation that caused undue delay in the accreditation process. It, however, worked perfectly in other polling units. The challenges ranged from rejection of permanent voter's card (PVC) by the card readers, inability to capture the biometrics from finger tips, to irregular capturing and fast battery drainage. INEC officials have to abandon their polling units and took the card readers back to their office for proper configuration. In order to salvage the situation, which was almost becoming frustrating, INEC ordered the use of manual process for accreditation. But before the order could go round the states and local government areas, it was already late to conduct accreditation and actual voting in some areas, a situation that forced INEC to extend the exercise to the next day in all affected areas.

While biometric card readers malfunctioned during the election, it did not deter willing voters from effective participation in the election. Election Monitor remarked 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% (Election Monitor, 2015). However, despite the fact that electoral participation remained resonant and highly encouraging, post-electoral disputes have necessitated several petitions and re-run elections in the Southern Nigeria where smart card readers malfunctioned greatly and affected electoral participation than in the Northern Nigeria. This has raised important questions as to the reliability of biometric voting system in sustaining electoral democracy and free, fair and credible election across the country.

Post election disputes in form of election petitions and re-run elections have become a damming challenge to Nigeria's electoral democracy. The former Chief Justice of Nigeria, Mahmud Mohammed had on February 3, 2015 inaugurated 242 judges who were selected to serve at various elections petition tribunals to respond to aggrieved candidates and parties seeking judicial redress. This meant a lot of investment in terms of human, financial and material resources in attending to these cases; and more importantly, huge budgetary allocations were made and spent by the INEC in the conduct of re-run elections across Nigeria.

2. REVIEW OF RELATED LITERATURE

Biometric Voting Technology and Post-Election Petitions in the 2015 and 2019 General Elections in Nigeria

Dispute resolution mechanism has been identified as the climax of the electoral process. The acceptance of the result of elections depends to a large extent on how disputes arising from such elections are settled. It has also been said that the legitimacy of the electoral process equally depend to a greater extent on the objectivity, transparency and impartiality of the dispute settlement mechanism and the imperativeness of building people's confidence in the electoral process.

However, Egbewole (2010), views that, first, there has been a rise in matters regarding election disputes in Nigeria. It is his view, nonetheless, that this should not be seen as a weakness of the system as it must be acknowledged that election disputes are inherent in the electoral process. In other words, election petition holds out great importance to the advancement of democracy in Nigeria. Thus, such rise in number should rather be viewed as an indication of the strength, vigour, robustness, vitality, and openness of the democratic system rather than as signs of weakness in the system. The fair and timely resolution of electoral disputes is a critical part of any electoral process and there is a world-wide consensus that those availing themselves of formal adjudication process should be entitled to a quick and swift resolution of their disputes by an independent and impartial tribunal. Egbewole maintained that the problem of quick resolution of electoral disputes appeared to be the main challenge to election petition in Nigeria. Hence, the tardiness in the resolution of electoral disputes appear to be the rational for the view that the court should hands off election petitions.

Authman (2004) stated that election petition is *Sue Generis* i.e. in a class of its own because it is neither civil nor criminal and thus share its own complexities given the conduct of the parties and such other variables affecting the time needed to resolve such disputes. However, the speed of dispute resolution is all the more important when it comes to challenges related to the results of elections as delay may negatively impact the credibility and legitimacy of the electoral process. In support, Egbewole (2010) corroborated that it is imperative that the result of elections including the outcome of disputes challenging the results is not unduly delayed. A special feature of an electoral tribunal that distinguishes it from other adjudicative bodies is that it determines not only the rights of individuals and their claims to office but also decides who takes over the reign of authority. Their decisions affect the society and its expectations. Consequently as a matter of public policy it must be expeditiously determined so as not to clog the machinery of the state. The scholars therefore proffered a constitutional amendment as a solution to ensure the credibility of post-election adjudication in Nigeria.

It is important to point out that a lot of factors have constituted delays against speedy dispensation of electoral petitions in Nigeria. Adejumo (2011) has captured aspects of the challenges arising from post-elections petitions as including conduct of participants in election petitions especially litigants, institutional challenge, and infrastructural problems such as inadequate courtrooms for tribunals. According to Adejumo (2011), litigants, especially the respondents, have the habit of trying by all possible means to extend the duration of election petitions by exploring all avenues available to do so. This problem is encouraged because of the incumbency advantage enjoyed by the respondents under our laws.

Discussing the institutional reasons, Adejumo (2011) maintained that the INEC had been known to exhibit the habit of disregard for court orders in election petition cases as they often ensured that court orders were not obeyed on time. This has raised the suspicion that it was partisan. In several instances when the courts direct it to allow parties to inspect election materials it has been known to resist compliance with such orders on time hiding under frivolous pretences that would necessitate the applicants going back to the courts several times for clarifications of the ambits of the orders. It is also a common practice for INEC to refuse to issue certificates of return to litigants as ordered by court.

Also, the practice whereby election petition members are not appointed based on proven experience means that expertise in this field of adjudication is not been deliberately cultivated. And cultivating expertise in this field would have definitely assisted in better adjudication in electoral disputes. In addition, court facilities like automatic transcribing machines and electronic facilities that might aid in quick dispensation of cases are not provided. This is because it would be totally impossible for riggers of elections and other perpetrators of electoral crimes to succeed without the active connivance of electoral and security officers, because whatever design, it must be ultimately reflected in the result to be announced by the *INEC*. If the *INEC* members of staff refuse to reflect the irregularities in their results and decline from announcing irregular results, the irregularities cannot see the light of the day (Adejumo, 2011).

However, Ubanyionwu (2012) noted that some major hiccups encumbering timely determination of post-election matters and appeals is reflected in the sittings of the tribunals and courts which is prevented by labour strike, judges' vacation and unforeseen circumstance which are all included in the 180 days or 60 days provided respectively in section 285 (6) & (7) of the Constitution. Again, the insufficient number of Justices of the Supreme Court and those of the Court of Appeal poses a serious challenge. For example, in the years 2011 and 2012 there were only three Justices in the Kaduna Division of the Court of Appeal. Whenever one was absent as a result of ill health or any other reason quorum would not be formed and the court would not sit.

Indeed, the prosecution of election petitions have remained a major challenge in resolving post election disputes in Nigeria. According to Falana (2014), since 2003 Nigeria has continued to record the highest number of election petitions in the world. The number of petitions rose so high in 2007. However, based on the change of the leadership of the INEC in 2010, coupled with the compulsory deposit of N400,000 by petitioners, the number of petitioners was reduced significantly 2011. Unlike other countries where election petitions are tried within days or weeks, they are allowed to drag on for years in Nigeria. In most cases filed petitions do not get conclusively resolved before the next election period. The reasons for the anomaly are not farfetched. Contrary to section 159 of the Electoral Act, 2006 which requires the INEC to grant access to election materials to litigants the INEC is in the habit of frustrating the inspection of voting materials by petitioners. In the process, petitioners are forced to apply to election petition tribunals to compel INEC to comply with the law. Even where orders are granted for inspection they are treated with disdain by the INEC in a bid to cover up electoral malpractice. In 2011 not less than 360 judges drawn from the various high courts in the country were appointed chairmen and members of election petition tribunals. The thousand of cases being handled by them were adjourned sine die as they were said to be on a national assignment. At the Court of Appeal and the Supreme Court appeals which are not related to election petitions are equally adjourned indefinitely. Therefore, Falana (2014) maintained that to obviate the incalculable injustice done to innocent litigants sitting judges should not be appointed members of election petition tribunals. Since there are a pool of retired judges who sit in judicial commissions of inquiry and arbitration panels they should be appointed as members of election petition tribunals and appellate judges.

Smart Card Readers and Inconclusive Elections in the 2015 and 2019 General Elections in Nigeria. Nwagwu (2015) observed that the ruling party vehemently objected to the use of the biometric card readers for the elections (particularly the presidential election) as the device would disadvantage PDF. This was an indication that the Peoples Democratic Party opposed reforming voting system, as they argued that the use of the technological devices would be better employed in future electoral events when the public might have been adequately sensitized on the application of the card reader. However, the strong opposition on the use of the mechanism was overruled by ENEC authority as the Commission insisted that customized permanent voter cards and smart card readers would be employed to accredit all eligible registered voters before the commencement of voting proper. With the introduction of PVCs and smart card readers, INEC seemed to have recorded unprecedented technological breakthrough in e-election administration in a developing country. The device was therefore applied to

validate the individual PVC and accredit eligible registered voters and ward-off impersonators. Nwangwu (2015) however, informed that there were cases where the card readers were unable to accredit some eligible registered voters with their customized PVCs like the case of .President Jonathan who the smart card reader failed to accredit and was later accredited by manual process. For Nwangwu, there was serious hiccup here and there with the biometrics card reader but the election was successfully executed.

Aziken (2015) remarked that 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. According to him, this proved that the successful conduct of the 2011 General Elections marked contributed immensely in providing the template for the use of biometric voting technology for the 2015 general elections in the country and such technological innovation is best described as a watershed .in Nigeria's democratic trajectory, as it contrasted sharply with the mismanagement and widespread fraud of previous polls. 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 few*, March 5,2015).

Nwangwu (2015) noted that the credibility of the elections, arising from the use of the anti-rigging technology, is deducible from the fact that it is the first time in the electoral annals of Nigeria that 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. He also maintained that 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. Nwangwu further stated that the use of biometric voting technology in the 2015 general elections resulted in a significant reduction of electoral petitions across the country. However, Nwangwu did not examine the actual impact of the use of the biometric voting technology on the whole electoral process of post-election scenario including election petitions and the rising cases of re-run elections that the malfunctioning of the biometric voting system occasioned.

Importantly, inconclusive elections arise mainly as a result of the numerous anomalies in the use of biometric technology voting system. The European Union Election Observation Mission (2015) maintains that structural procedural weaknesses persist for collation, particularly in regards to checks in the process and transparency. These include: no requirement for distribution and display of copies of voting point results forms, no double-blind data entry during collation, an insufficient system for dealing with anomalies or suspicious results, and no requirement for display of PU results at the first-level of collation (thereby breaking the chain of results data compromising stakeholders' ability to check the veracity of announced totals),

Mordi (cited in *The Nation*, December 16, 2016) observed that the use of technological tool like the Smart Card Reader does not in itself eliminate the human agency that perpetrates electoral offences such as over-voting. But, the Card Reader still helps to expose the misdeed, by showing in its memory that the ballot papers stuffed in the box is more than the number of persons accredited. He stated that a band of incorrigible political elite whose stock in trade is electoral malfeasance is also implicated and could account for the rising number of inconclusive elections. It has been noted that the conduct of election is a highly regulated exercise. Failure to follow due process and rules of engagement will result in nullification of the poll by the election petitions tribunals. At present, two major pieces of legislation guide the conduct of elections in Nigeria.

They are the 1999 Constitution of the Federal Republic of Nigeria, as amended as well as the Electoral Act 2010, as amended. In addition, Section 153 of the Electoral Act empowers INEC to also issue regulations, guidelines and manuals for the purpose of giving effect to the provisions of the Act. Thus, the Commission periodically publishes Election Guidelines, Codes of Conduct for Political Parties, Accredited Observers, Journalists, etc. It also developed Political Party Finance Manual and Handbook (Punch News, April 13,2016).

1.2 THEORETICAL FRAMEWORK

This study is based on the chaos theory. Proponents of chaos theory include Henri Poincare (1890), Jacques Hadamard (1898), James Gleick (1987), Edward Lorenz (1963), Diacu and Holmes (1996), and Chris Brooks (1998) among others. The main catalyst for the development of chaos theory was the electronic computer. Much of the mathematics of chaos theory involves the repeated iteration of simple mathematical formulas, which would be impractical to do by hand. Electronic computers made these repeated calculations practical, while figures and images made it possible to visualize these systems. Hence, what had been attributed to 'measure imprecision' became an outcome of several observed phenomena.

Lorenz (1963) maintained that the central thesis of Chaos theory is hinged on the fact that technological and computer systems could be reliably trusted at an initial or present condition to provide an accurate prediction that would determine the future. However, errors in numerical computation would likely affect that accurate prediction to yield widely divergent outcomes, thus, rendering long-term prediction impossible in general.

The Chaos theory offers explanation to issue of errors in numerical computation observable in electronic computers such as biometric card readers during elections. The theory provides adequate insight to challenges of biometric voting technology such as over-voting, difficulty in fingerprint identification, difficulty to round up collated figures and declare accurate results, etc. These critical inadequacies constituted difficult challenge to electoral credibility, voter turnout, enfranchisement/confidence building and public trust in the 2015 and 2019 general elections in Nigeria.

More importantly, Lorenz (1963) concurred, biometric voting technology was reliably trusted by the Independent National Electoral Commission (INEC) and other stakeholders at the point of its deployment on the general elections to function effectively and provide accurate results that would determine the outcome of the elections (despite pockets of hitches during test run). However, the malfunctioning of the card readers especially relating to errors in fingerprint identification undermined the credibility of the whole process with controversies and claims of over-voting and disenfranchisement, leading to inconclusive elections and postelection petitions.

1.2.1 Effectiveness of Biometric Voting Technology in the 2015 and 2019 General Elections in Nigeria

The process involved in the use of biometric voting technology in the 2015 and 2019 General Elections 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 was designed to read biometric information in the embedded chip of the PVC. It displayed 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 (Nwangwu, 2015).

On March 7, 2015, INEC conducted a test-run to ascertain 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 (Nwangwu, 2015). 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.

- 1) 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%.
- 2) 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.
- 3) 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 folly served this objective.
- 4) 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, see <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.

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 (National Democratic Institute, 2015; Nwangwu, 2015). 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).

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.

1.2.2 Biometric Voting Technology Voter Turnout and Participation in the 2015 General Elections

It should be noted that the 2015 general elections came with high level of confidence building among voters occasioned by the conviction that biometric voting technology would actually make votes count and foist all manner of electoral fraud. The disposition of many Nigerian voters towards the new anti-rigging biometric technology was amply demonstrated by considerable voter-turnout and their level of participation during the elections, which varied across different geo-political zones and polling units in the country, in which there were long queues of enthusiastic voters who conducted themselves in largely peaceful manner (National Democratic Institute, 2015). Although voter turnout in the 2015 general elections was a bit less than that of preceding elections. The registered voters' turnout in the aggregate since 1999 elections has been in the average of 55.13%. However, voter turn in the 2015 general elections was 47%. Some states that recorded 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 (Election Monitor, 2015). The table below further buttresses the breakdown of voters' turnout from the 36 states of the Federation and the Federal Capital Territory (FCT) during the 2015 Presidential & National Assembly Elections.

Table 1: 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	Katsina	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.

On the geo-political zone basis, the South-South had the greatest voter turnout with 59% closely followed by the North-West with 54%. The North-East and North Central had 45% each; while South-East had 41%. The South-West had the lowest turnout in the country with just 37%. 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% (Election Monitor, 2015).

More importantly, European Union Election Observation Mission (2015) has stressed that the use of the card readers was evidently problematic, with 18% malfunctioning and 91% not being able to consistently verify fingerprints, and consequently manual voter identification being undertaken which increased enfranchisement but weakened the integrity of the process as there was increased risk of collusion and intimidation of staff.

Hence, the malfunctioning of the card reader machines impacted seriously on the official presidential turnout figure provided which was calculated from this reduced number and also referred to turnout for accreditation rather than for voting. This is a significant difference given that over 2.3 million of those that were accredited (7.3%) did not finally cast their ballot. Thus the two-stage system of accreditation and then voting, while providing a safeguard against multiple voting, also appears to have resulted in significant disenfranchisement. The announced official turnout is thus 47.09%, while the actual voter turnout (as opposed to accreditation turnout), calculated from the total number of registered voters officially announced by INEC on 13 January, is 42.76% (European Union Election Observation Mission, 2015). This therefore provides adequate explanation why many aggrieved parties had to seek redress in the court of law over the conduct of the election. Hence, the reason for considerable number of post-election petitions following the 2015 general elections.

1.2.3 Biometric Voting Technology and Post-Election Petitions

Elections in Nigeria are coterminous with polemics and legal fireworks. Post-election dispute resolution is, therefore, a key activity which brings a final closure of the electoral process. Independent National Electoral Commission (FNEC) is empowered to conduct, also allow rooms for Elections' Petition Tribunals (equivalent of high courts) to handle judicial petitions arising from the conduct of such polls, with a view to determining the authenticity or otherwise of such polls. Such petitions are filed by aggrieved parties. 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. Where no judicial petition is filed at an Election Petition Tribunal within a stipulated time frame, the referenced poll is deemed validly conducted. Matters that are brought before polls' tribunals are matters that have to do with the conduct of the polls proper. Matters deemed "pre-election matters" such as nomination of candidates, are filed and handled by ordinary high courts, which stretch to the Apex (supreme) Court.

In the Constitution of Nigeria 1999 as amended in 2011 and the Electoral Act of the Federation of 2010, governorship poll

tribunal cases start at the tribunal (high court) and terminate at the Supreme Court (three steps). The presidential poll tribunal cases start at the Presidential Poll Tribunal (appeal' court) and terminate at the Supreme Court (two steps) and the National and State Assemblies' poll cases start at the tribunal (high court) and terminate at appeal court (two steps). Of all the poll petitions' cases, the governorship poll cases have the longest duration of ten (10) months; that is to say six (6) months at the tribunal, two (2) months at the appeal court and two (2) months at the Supreme Court. The presidential poll cases have a total duration of eight (8) months: six (6) months at the presidential poll tribunal (appeal court) and two (2) months at the Supreme Court. The National and State Assemblies' poll cases last for a total of eight (8) months: six (6) months at the tribunal (high court) and two (2) months at the appeal court (Nigeria Masterweb, 2014).

At the conclusion of the 2011 elections by the Independent National Electoral Commission (INEC), a number of aggrieved candidates and parties seeking judicial redress over perceived irregularities in the conduct of the election filed petition at the tribunals. Table 2 depicts the number and category of 2011 post-election petitions in Nigeria.

Table 2: Summary of the 2011 Election Petitions

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

Source: Adapted from INEC (n.d). Report on the 2011 General Elections.

A Publication of INEC; Scannews (2015) "611 election petitions before tribunals nationwide, says INEC," October 21. Available at: <http://scannewsnigeria.com/news/611-election-petitions-before-tribunals-nationwide-says-inec/> More importantly, the Independent National Electoral Commission (INEC) has noted that a total of 611 petitions are currently before the various election petition tribunals set up after the conduct of 2015 general elections. The commission said the number was less than half of the 1,290 petitions filed after the 2007 polls. According to available statistics, the number of election petitions after the 2007 general elections stood at 1,290; after the 2011 general elections, the number came down by almost half, with a total of 732 election petitions filed. Following the 2015 general elections, the number of petitions further scaled down to 611. It is therefore expected that the incidence of nullified elections will be correspondingly low (Amina Zakari, cited in scannews, 2015).

The Commission further noted that 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.

It is therefore on this basis that a clear fact should be established that there was never a significant reduction in the number of electoral petitions recorded after the use of biometric voting technology in the conduct of the 2015 general elections. It was obvious that even at that early stage of electoral democracy in Nigeria in 2003 the number of post-election petitions merely stood at 560. Although the figures went damn high in 2007 to

the tune of 1,290; it reduced significantly to 731 in 2011. Therefore, a record of 611 post-election petitions in 2015 was less than/6 percent reduction compared to the 731 recorded in the preceding 2011 election. This can never be considered a significant reduction. Hence, the use of biometric voting technology did not contribute to significant reduction in post-election petitions.

Some governorship, national and state assembly candidates filed petitions at the various designated tribunals. The petitions refer to various multiple allegations. Problems with voting referred to include late PU opening, no voting taking place in PUs or wards, voting without PVCs, a lack of proper accreditation before voting, card reader failure, harassment of INEC officials and voters by armed party thugs or security officers, multiple thumb printing of ballot papers, ballot stuffing, and bribery of voters. A breakdown of the petitions showed that a total of 255 petitions were filed against the National Assembly election results, out of which 180 were contesting the results of the House of Representatives results and 75 were challenging the Senatorial election results. No

petitions were filed against the presidential election results. The majority of the petitions were filed by PDF, while a smaller number was filed by APC; and also some by APGA, Accord Party, LP and SDP (European Union Observation Mission, 2015).

A further breakdown of the petitions showed 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 was 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 card reader machines to read biometric information contained in the PVCs as well as accredited voters in Southern Nigeria. This made the use of manual accreditation inevitable in these regions (Nwangwu, 2015).

Table 3: Number of Election Petitions from each Zone after the 2015 General Elections as at May 10,2015

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
	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>.

In other words, the table above depicts that the regions that had more number of post-election petitions were the states in the Southern geo-political zones in which the card reader machines malfunctioned greatly occasioning manual accreditation and voting. On the obverse, generally, in the Northern states where the card reader machines worked relatively well, less number of postelection petitions have emerged as shown in the table,

1.2.4 Biometric Voting Technology and Inconclusive Elections

It is apparent that in previous elections in Nigeria, rarely were elections declared inconclusive by the Independent National Electoral Commission (INEC). However, the conduct of the 2016 general elections has heralded barrage of inconclusive elections in the electoral history of Nigeria. The new substantive INEC chairman Professor Yakubu Mahmood was appointed by President Muhammadu Buhari on October 21, 2015 and ever since then he has continued to preside over series of

inconclusive elections following the aftermath of the 2015 general elections. In fact, almost every other election conducted by the Commission has been bedevilled with inconclusiveness. Under Mahmood' s watch, INEC has so far conducted 2 off-cycle governorship elections in Kogi and Bayelsa; one council election and over 80 re-run legislative elections across the country.

Particularly, the use of biometric voting technology made it possible to have series of inconclusive elections following the 2015 general elections in Nigeria. It is totally uncalled for that on the day of the election, certain devices that will enhance the smooth operation of the process will fail at the 11th hour or when in use, thereby disenfranchising voters who have defied all challenges to vote for their preferred candidates. It should be note that when voting takes place in an election, it does so on the basis of the accredited potential voters. Controversies hanging upon whether all registered voters have Permanent Voters Cards; whether all Voters with Permanent Voters Card will show up on the day of election f -r accreditation or

voting; whether all of them will accredit; whether all accredited actually voted after accreditation etc have all constituted strange excuses for election cancellation. Incidentally, the malfunctioning of the biometric voting system which included biometric voter registration, Advanced Fingerprints Identification System, customization of sensitive electoral materials such as ballot papers and result sheets, colour coding of the ballot papers which renders it useless in other constituencies when pilfered or snatched, biometric voter registration issuance of chip-embedded and machine readable Permanent Voter Cards (PVCs) as well as the introductory of the Smart Card Reader, has been at the centre of these controversies leading the election cancellation or inconclusive elections (Premium Times, September 3, 2016).

For instance, the off-cycle governorship elections held in Kogi and Bayelsa states on November 21 and December 5, 2015 respectively were also inconclusive. In the case of the Kogi election, INEC had to cancel results in 91 polling units across the state as a result of cases of over-voting and pockets of violence among others. Subsequently, a supplementary poll was ordered in the affected units. This was premised on the fact that the margin between the two leading contenders then, the late Abubakar Audu of the All Progressives Congress (APC) and Governor Idris Wada of the Peoples Democratic Party (PDP) was 41,000 votes; whereas the total number of registered voters in the affected polling units was 49, 953 (The Nation, December 16, 2015). Similarly, in Edo state in the South South, 10.47% of polling unit results was cancelled by the INEC. There were also cancellation of Rivers state Senatorial and State House of Assembly election results which has been awaiting re-run endlessly.

The report of European Union Election Observation Mission (2015), on March 28 Presidential elections, stated that use of the card readers was evidently problematic, with 18% malfunctioning and 91% not being able to consistently verify fingerprints, and consequently manual voter identification being undertaken which increased enfranchisement but weakened the integrity of the process as there was increased risk of collusion and intimidation of staff. This resulted in postponed elections in 13 House of Representative constituencies in three states. Similarly, on April 11 Governorship and state house of Assembly elections, there also persisted problems of fingerprint identification. In more than 12% of polling units no attempt was made to verify fingerprints. In 13% of polling units, card readers were not always able to read PVCs, and in 94% could not always verify fingerprints. In addition, it was observed that approximately two hours after the scheduled end of accreditation, INEC announced that in case of card reader failure, their use would no longer be required and registrants would be manually accredited. In so doing, INEC expedited accreditation, but removed the safeguard of electronically checking for authentic PVCs allocated to that polling unit. At 9pm INEC announced that repolling would take place in approximately 300 sites due to

malfunctioning of card readers (European Union Election Observation Mission (2015)).

This means that the confidence of parties to the election was highly undermined in the accreditation and voting process as a result of poor adaptation to biometric voting technology and as such the aggrieved parties could not but challenge the election result in the court of law. This thereof forms a strong explanation for the reasons of inconclusive elections and that consequent leading to re-run polls. In fact, what is clear is that should the number of registered voters in polling units where elections were not held or were cancelled be greater than the margin of victory, then re-polling was due.

In essence, the controversies arising from the use of biometric technology in the conduct of the election resulted to numerous petitions and demands of different kinds from aggrieved parties for cancellation of some of the elections. Plaintiffs therefore requested courts to declare that the respondent did not score the majority of votes, invalidating the election, nullify the INEC Certificate of Return and directing INEC to issue such a certificate to the petitioner, and directing INEC to conduct a bye-election or a fresh election. Pleas were also made for an order compelling the respondent to refund all allowances, honorarium, salaries, or entitlements accrued to the petitioner as a result of his being in the office during the pendency of this case.

Conclusion and Recommendations

This paper has established that the use of biometric voting technology did not contribute to significant reduction in post-election petitions in the 2015 and 2019 general elections in Nigeria. 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. That the use of the card readers was evidently problematic, with 18% malfunctioning and 91% not being able to consistently verify fingerprints, and consequently manual voter identification being undertaken which increased enfranchisement but weakened the integrity of the process. There was a significant difference given that over 2.3 million of those that were accredited (7.3%) did not finally cast their ballot. Thus the two-stage system of accreditation and then voting, while providing a safeguard against multiple voting, also appears to have resulted in significant disenfranchisement.

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. Particularly, over-voting and disenfranchisement were rampant.

Again, the study established that the malfunctioning of the Smart Card Readers occasioned high increase in inconclusive elections during the 2015 and 2019 general elections in Nigeria. About 18% of smart card readers malfunctioned and 91% could not consistently verify fingerprints, and consequently manual voter identification was undertaken which increased enfranchisement. Similarly, on April 11 Governorship and state house of Assembly elections, there also persisted problems of fingerprint identification. In more than 12% of polling units no attempt was made to verify fingerprints. In 13% of polling units, card readers were not always able to read PVCs, and in 94% could not always verify fingerprints. This resulted in postponed elections in 13 House of Representative constituencies in three states. Since the 2015 general elections, INEC also conducted 2 governorship re-run elections, one council election and over 80 re-run legislative elections across the country.

Based on these conclusions, this paper recommends that Independent National Electoral Commission (INEC) should embark on extensive timely institutional reforms including training of its regular and adhoc staff in order to acquaint them adequately with the technicalities that are involved in the operation of biometric voting system before any general elections.

The Independent National Electoral Commission (INEC) should test-run and operate as many smart card readers as possible by in order to rule out factory faults and ensure reliability of all the machines ahead of any given elections.

The Federal Government should increase the number of judges that attend to post-election petitions to ensure speedy dispensation of justice. This will repose more confidence in the electoral system and strengthen electoral democracy in Nigeria.

The Federal Government should increase funding to the INEC especially to stretch into provision of accommodation and transportation logistics for field INEC staff/adhoc staff during elections to guarantee timely and effective coverage of the designated polling units. This would ensure reduction of electoral malpractice and other electoral irregularities that lead to inconclusive elections in Nigeria.

REFERENCES

1. Adejumo, B.A. (2011) "The Judiciary and the Rule of

- Law: Challenges of Adjudication in the Electoral Process," Paper delivered at the Series of Events Organized to Mark the 2011 Law Week of the Law Students' Association of the University of Abuja, at the University of Abuja, Gwagwalada Campus on May 23.
2. Adeyemi, M., Abubakar, M. & Jimoh, A. M. (2015, March 5). PDF, APC trade words over use of card reader for polls. The Guardian. Retrieved from:
 3. Ahmada, S, Abdullah, S.A & Arshad, R.B. (2015) "Issues and Challenges of Transition to E-Voting Technology in Nigeria," Public Policy and Administration Research, 5 (4): 95-102.
 4. Alabi, M. O. (2009) "Electoral reforms and democratic consolidation in Nigeria: The Electoral Act 2006," CEU Political Science Journal, 4(2), 278-304.
 5. Asika, N (2006) Research Methodology in the Behavioural Sciences. Nigeria: Longman Nigerian Pic.
 6. Authman, V. (2004) "The Resolution of Disputes Related to Election Result" in International Foundation for Electoral System Report, February.
 7. Ayoade, J.A. (1998) "What is Democracy" in Ayoade J.A.A. (Ed) Democracy: Its Meaning & Value. Ibadan Vintage Publishers Ltd.
 8. Brooks, C. (1998) "Chaos in Foreign Exchange Markets: A Sceptical View," Computational Economics, 11: 265-281.
 9. Diamond, L. (2008) The Spirit of Democracy: The Struggle to Build Free Societies Throughout the World. New York: Times Books.
 10. Edokpayi, B. (2015) "Group Advocates ICT Deployment for Electoral Process Management [Online] Available: <http://www.channelsty.com/2014/03/04/group-advocates-ict-deployment-for-elecoral-process-management/> (Retrieved December 2, 2016).
 11. Egbewole, W. (2010) "Election Petitions and Peaceful Resolution of Electoral Disputes in Nigeria: Prospects and Challenges," Paper Delivered at the International Conference of the Society for Peace Studies and Practice, held in Minna, Niger State, between 29th and 31st March.
 12. Election Monitor (2015). 2015 General Elections observation report. A Publication of Election Monitor.
 13. European Union Election Observation Mission (2015) Federal Republic of Nigeria Final Report on General Elections 28 March 2015, 11 April 2015. Published in July 2015.
 14. Falana, F. (2014) "Election petitions: Tools for timely dispensation of justice," Being the Paper delivered by Femi Falana (SAN) at the National Stakeholders Forum on Electoral Reform, Abuja, Nigeria, held from January 28-29 2014.
 15. Gelb, A. & Clark, J. (2013). Identification for development: The biometrics revolution. Working Paper 315. Centre for Global Development, Washington, D.C.
 16. Gleick, J. (1987) Chaos: Making a New Science. London: Cardinal, p. 17.

17. Golden, M., Kramon, E. & Ofosu, G. (2014). Electoral fraud and biometric identification machine failure in a competitive democracy. Retrieved from: <http://golden.polisci.ucla.edu/workinprogress/golden-kramon-ofosu.pdf>. (Retrieved October 14, 2006)
18. <http://www.ngrguardiannews.com/2015/03/pdp-apc-trade-words-over-use-of-card-reader-for-polls/on> 18th May 2016.
19. <http://www.premiumtimesng.com/promoted/209755-letter-inec-chairman-demon-inconclusive-elections-fate-nigerias-democracy.html> on November 20 2016
20. Ivancevic, Vladimir G.; Tijana T. Ivancevic (2008). *Complex Nonlinearity: Chaos, Phase Transitions, Topology Change, and Path Integrals*. Springer.
21. Kellert, S.H. (1993). *In the Wake of Chaos: Unpredictable Order in Dynamical Systems*. University of Chicago Press, p. 32.
22. Mac-Leva, F. & Ibrahim, H. (2015, May 10). 2015 Elections: 297 petitions taken to tribunals. Daily Trust. Retrieved from: <http://w\v\dailytrust.com.ng/sunday/index.php/interview/20653-2015-elections-297-petitions-taken-to-tribunals> Retrieved November 22, 2016
23. National Democratic Institute (2015). Statement of the National Democratic Institute's international observer mission to Nigeria's March 28 Presidential and Legislative Elections. Abuja: National Democratic Institute.
24. Nigeria Masterweb (2014) "The Processes of Election Petitions' Tribunals In Nigeria & Public Expectations From The Anambra State Governorship Election Petitions' Tribunal," February 20. Available at: <http://nigeriamasterweb.com/blog/index.php/2014/02/20/the-processes-of-election-petitions-tribunals-in-nigeria-public-expectations-from-the-anambra-state-governorship-election-petitions-tribunal>. Retrieved October 8, 2016
25. Nkansah, L.A. (2015) "Dispute Resolution and Electoral Justice in Africa: The way forward," Featured in CODESRIA Paper 14, *Creating African Futures in an Era of Global Transformations: Challenges and Prospects*. 8th - 12th June.
26. Nnoli, O. (2003) *Introduction to politics* (2nd ed.). Enugu: PACREP.
27. Nwagwu, E.J. (2015) "Information and Communication Technology and Administration of 2015 General Election in Nigeria," *Mediterranean Journal of Social Sciences*, 1 (4): 303-316.
28. Nwangwu, C. (2015) "Biometric Voting Technology and the 2015 General Sections," Being a Paper Presented at Two-Day National Conference on "The 2015 General Elections in Nigeria: The Real Issues" organized by The Electoral Institute between 27th and 28th July 2015.
29. Oche, M. (2015, April 5). Elections: What difference did card readers make? Leadership.
30. Omotola, J. S. (2010) "Elections and democratic transition in Nigeria under the Fourth Republic," *African Affairs*, 109:437, 535-553.
31. Onyekwelu, B. A. & Akomolafe, D.T. (2010) "Descriptive System for Creating Awareness in the Electoral Process in Nigeria Using Information Technology," *International Journal of Computer Science and Information Security*, 8(9): 225.
32. Poincare, J. H. (1890) "Sur le probleme des trois corps et les equations de la dynamique. Divergence des series de M. Lindstedt," *Acta Mathematica*, 13: 1-270.
33. Popoola, A.O. (2007) "Election Petitions and Challenges of Speedy Dispensation of Justice in Nigeria." in Taiwo Kupolati (ed) *Current Issues in Nigerian Jurisprudence*.
34. Premium Times, September 3, 2016 "Letter to INEC Chairman: The demon of inconclusive elections and fate of Nigeria's democracy," Available at:
35. Punch News, April 13, 2016, "Much Ado About INEC's Inconclusive Elections," Available at: <http://punchng.com/much-ado-about-inecs-inconclusive-elections/> on October 13 2016.
36. Retrieved from: <http://leadership.ng/news/423212/elections-what-difference-did-card-readers-make> on December 8 2016.
37. Safonov, L.A.; Tomer, E.; Strygin, V.V.; Ashkenazy, Y. & Havlin, S. (2002) "Multifractal Chaotic Attractors in A System of Delay-Differential Equations Modeling Road Traffic". *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 12 (4): 1006.
38. ScanneWS (2015) "611 election petitions before tribunals nationwide, says INEC," October 21. Available at: <http://scannewsnigeria.com/iiews/611-election-petitions-before-tfibunals-nationwide-says-inec/> Retrieved on November 12 2016.
39. Ubanyionwu, C.J. (2012) "Election Petition Cases and the Right to Fair Trial within a Reasonable Time in Nigeria," NA UJILJ.
40. Werndl, C. (2009). "What are the New Implications of Chaos for Unpredictability?" *The British Journal for the Philosophy of Science*, 60 (1): 195-220.