

The 2015 Biometric Voting System and the Politics of Free, Fair and Sustainable Democracy in Nigeria

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ABSTRACT

The need for Nigerians to record a free, fair and credible election to sustain the democracy led to the use of biometric voting method. This method is expected to reduce political violence and post election petitions. This study examined the relationship between biometric identification technology and the challenges of 2015 general elections in Nigeria. The qualitative methods of data collection and analysis were adopted for the study. The chaos theory was adopted as a framework of analysis. This study therefore established that the use of biometric voting technology did not contribute to significant reduction in post-election petitions in the 2015 general elections in Nigeria. 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 18% malfunctioning and 91% not being able to consistently verify fingerprints resulting in significant disenfranchisement. Over 2.3 million of those that were accredited (7.3%) did not finally cast their ballot. This weakened the integrity of the process. A record of 610 postelection petitions were filed after the 2015 general elections which was less than 9 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 general election 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. 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. After the 2015 general elections, INEC has 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 ad-hoc staff on the operation of biometric voting system. The number of judges that attend to post-election petitions should be increased to ensure speedy dispensation of justice. The Federal Government should provide accommodation and transportation logistics for INEC field staff during elections to guarantee timely and effective coverage of the designated polling units. It is expected that the findings in this paper will be used to improve subsequent election in Nigeria

Keywords: Biometric Voting; General elections, Progress, Politics, Pitfalls

BACKGROUND OF THE STUDY

All over the world, one of the hallmarks of democracy is the regular and frequent elections to choose who will occupy a position or an office in a peaceful and orderly manner. The need for regularity of elections as the basis for electing an occupier of an office is based on the fact that it is about the only way that a country can peacefully transit from one government to another (Egbewole, 2010). It is imperative to note that the credibility of an election, among other things, is upheld where the votes of the majority count notwithstanding the expression of the minority. Whoever eventually emerges as

a result of an election will be seen to be representing the people (Popoola, 2007).

Over the years, however, fledgling African democracies have had persistent difficulties in conducting a free, fair, credible and transparent election. Most elections are marred with gross irregularities, electoral violence and inconclusive ballots among others (Ayoade, 1998). Newly democratic states including Nigeria have therefore worked so assiduously to establish enduring independent Election Management Bodies (EMB) capable of instituting reliable and effective measures that would promote the quality of their electoral

process. The quality of electoral process is a core indicator of a truly democratic state. Indeed, elections are said to be meaningfully democratic if they are free, fair, participatory, credible, competitive and legitimate. Elections are, therefore, adjudged to be credible when they 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, 2008:101).

Hence, electoral democracy are so closely 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 (Nnoli, 2003).

Nigeria is one of the important democratic states in Africa that have continued to invest considerable resources in consolidating and engendering a qualitative electoral democracy. The 2015 general election in Nigeria was conducted by the Independent National Electoral Commission (INEC) which is the (EMB) empowered by the 1999 Constitution of the Federal Republic of Nigeria (as amended) to organize, undertake and supervise all elections in Nigeria. The Presidential and National Assembly elections took place on 28th March while the Governorship and States Assembly elections were held on 11th April.

The 2015 general elections in Nigeria were highly significant in many ways. The said election has been the keenest electoral contest since Nigeria's post-1999 transition to multi-party democracy (International Republican Institute, 2015). There was little or no doubt that the election was the most politically engaged in the history of electoral democracy in Nigeria. It was the first time about four major opposition parties came together to form a very strong party, the All Progressives Congress (APC) in order to challenge the dominance of the ruling

party, the Peoples Democratic Party (PDP), in the country. The presidential election was contested by fourteen candidates from different political parties. However, the candidates of the POP, and ARC, Dr. Goodluck Ebele Jonathan and General Muhammadu Buhari respectively were the major contenders in the election. Indeed, according to Omotola (2013), the election became the only game in town, shaping and reshaping public discourse and political actions in the country.

It is of note that Nigeria invested a lot of human and material resources through INEC in the conduct of the 2015 general elections in order to ensure the credibility and transparency of the process. Huge resources were-used for the conduct of the elections including 120 billion naira initially approved by the National Assembly for the procurement of card reader machines and other sensitive voting materials. As many as 750,000 ad-hoc election staff were engaged to complement regular INEC staff in the conduct of the elections with over 360,000 security personnel in the field to facilitate a free, fair and credible election.

More importantly, the introduction of biometric identification technology remained a remarkable step and innovation toward the entrenchment of a truly free, fair and credible election in Nigeria. Like in most other nations, the introduction of the technology in Nigeria was a practical response to polemics about the quality of existing voter register, the difficulties in registering voters and establishing their identity. It is noted that biometric identification systems are already in widespread use for voter registration to the point that .about 34 of the world's low-and middle-income countries had adopted biometric technology as part of their voter identification system as early as 2013 (Gelb & Clark, 2013). 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" (Nwangwu, 2015:4).

In Nigeria, the biometric identification technology came with a number of technologically-based reforms which were embarked upon by the leadership of INEC, headed by Prof Attahiru Jega. These include: 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 introduction of the Smart Card Reader. 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. 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). The use of biometric smart card reader machines, being the pivot of biometric voting system, functioned as an anti-rigging technological device for the authentication of voter's cards. Biometric voting technology was therefore largely believed to be a system that could effectively make most electoral ills largely unfashionable.

This study examined the effectiveness of biometric identification technology in the conduct of the 2015 general elections in Nigeria especially in facilitating free, fair and credible electoral process. However, the general focus of the study is on biometric voting technology and the challenges of the 2015 General Elections in Nigeria.

STATEMENT OF THE PROBLEM

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. 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 EMB - the Independent National Electoral Commission (Nwangwu, 2015).

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 (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. According to Golden, Kramon & Ofori (2014:1), "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". Professor Jega maintained that:

We have made risking 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 office? 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).

Despite the confidence of INEC in the use of card reader in the 2015 general elections, the machines came with some critical challenges,

even though the elections have been widely adjudged as being successful. For instance, the 2015 elections were initially postponed due to poor distribution of permanent voter cards and technical problems with the biometric card readers. The postponement was inevitable on the grounds that INEC failed to deliver PVCs to millions of voters (around 34%). INEC disclosed that around 45.1 million registered voters out of 68.8 million had received PVCs. Further reason was a security threat that borders on insurgency in some parts of three North-Eastern states.

Again, during the March 28 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 had 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). Despite the fact that electoral participation remained resonant and highly encouraging, post-election disputes 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 elections 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.

Importantly, extant literature on electoral democracy link between the use of biometric voting technology and specific challenges inherent in the 2015 general elections in respect to post-election petitions and inconclusive elections. In fact, remarkable studies such as Nkansah (2015), Authman (2004), Egbewole (2010), Popoola (2007), Ubanyionwu (2012), Adejumo (2011), Falana (2014), Mordi (2016), European Union Election Observation Mission (2015), Edokpayi (2015), Onu & Chiamogu (2012), Onyekwelu a Akomolafe (2010), Alabi (2009), Akanda et al (2015), Nwaogwu (2015), Aziken (2015) and Nwagwu (2015) etc, have yet to throw up a meaningful and robust discourse to this effect.

Consequent upon the foregoing, this study is guided by the following research questions:

- Did the use of biometric voting technology contribute to significant reduction in postelection petitions in the 2015 general elections in Nigeria?
- Did malfunctioning of the Smart Card Readers occasion high increase in inconclusive elections during the 2015 general elections in Nigeria?

LITERATURE REVIEW

This study centres on biometric voting technology and the challenges of the 2015 general elections in Nigeria. Thus, the aim of this literature review is to locate the gap in the literature with respect to the relevant variables of the study pertinent to the research questions.

Biometric Voting Technology and Post-Election Petitions 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 depends 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.

Nkansah (2015) succinctly observed that post-election disputes could take different shapes. Hence, there could be post-voting adjudication where voting is done, counting and tallying may be done or ongoing, results may have been declaimed or not, or declared winners may have assumed positions as the case may be and the court is invoked to challenge the election outcome. The challenge could be on any aspect of the electoral process but the main goal of the claim is to have the entire process annulled or modified by the court, or a demand is made for a recount. The basis of the claim may relate to any aspect of the electoral process which is considered to have affected the process and the outcome negatively. Nkansah (2015) further maintained that tribunal courts in Nigeria have delivered judgement on matters intended to correct electoral anomalies and fraud and have even reversed the decision of the EMB by cancelling results, ordered for rerun, and declared losers as winners and winners as losers. However, these are mainly in respect of parliamentary and other elections other than presidential elections and examples of such cases replete. He noted that in Nigeria for example, analysis of 426 of the election petitions adjudicated at the first instance after the 2015 general elections revealed that 96 of them were upheld and 222 did not succeed due to lack of merit. The position of Nkansah (2015), therefore, shows that it is possible to have avalanche of election petitions that could lack merit at the end of tribunal process. This may also suggest that most litigants may or may not have confidence in these tribunals should they lose their cases. Therefore, the best bet could be to have a credible electoral system and efficient electoral management body to materialize the rising level of postelection disputes in the country.

However, Egbewole (2010) has a contrary view. He first observed that 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 appears to be the rationale for the view that the court should hands off election petitions.

Authman (200-4) stated that election petition is *sui 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. 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.

Under the Electoral Act, 2006 (repealed by Electoral Act 2010), while a petitioner is challenging the outcome of the election in which he participated, his opponent who has been declared the winner is allowed to continue to enjoy the fruit of the contested post for as long as the case lasts. This is replicated under section 143 of the Electoral Act, 2010. Most often the petitioners, if they win at the end of the day might not have more than some few days remaining to enjoy their mandates as they have to use the remainder of the mandates being used by the respondents. It is observed that respondents in most cases would have spent more than half of the tenures they are adjudged not to have won before they are sent packing. To make matters worse, the respondents would have the state resources at their disposal to fight the cases while the actual winners would have to rely on their own means.

Although, this situation appears to have been partially ameliorated by the insertion of section 285 (5)-(7) of the CFRN, 1999 (as altered) which seems to have pegged the period within which election petitions matters could spend from the date of filing to the final appeal to about 11 months .from the declaration of the result. However, the fact remains that the almost one year taken out of a winner's tenure illegally is simply too long. The cumulative effect of these attitudes on the part of participants in election petitions is unwarranted delay in the prosecution of electoral cases. This means poses a debate for further altering of the CFRN, 1999 and the Electoral Act, 2010 by providing that election petitions are to be concluded before assumption of offices (Popoola, 2007).

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.

The issue of non-provision of residential accommodation for judges handling post-election petitions is also a source of great worry which often results in compromise of the outcome of the judgement. Often times, accommodation and transport facilities for tribunal judges are sourced ad hoc with the unpalatable occurrence that State Governors who are parties to election petitions often provide the accommodations. There have also been instances where tribunal members stayed in hotels which may be owned by a party member or his relations. At this instance, party members have the opportunity to infiltrate the hotels in order to interact with the tribunal members. Hotel owners are also enabled to frustrate uncooperative tribunal members by inducing deliberate power outage at critical times. This means that the tribunal members are put in a situation that exposes them to grave dangers when considered against the very sensitive duty they are engaged in. Thus, the tribunal members are exposed unnecessarily to bribery pressures. The requirement that election cases be given accelerated hearing and that judgments be delivered within specified time frame may be breached as a result (Popoola, 2007).

Again, is it noted that election tribunal judges are not exempted from making returns to the National Judicial Institute despite-serving in election tribunals. It is common knowledge that election petition trial is a very cumbersome and arduous task that demands utmost attention. This makes it difficult for the tribunal members to concentrate fully on the immediate election petition cases before them as they seize any breathing space to attend to their regular cases. This becomes more so in view of sections 285(5)-(7) of the CFRN, 1999 that now demands that election petitions are disposed off within a specified time limit. With the divided attention of the tribunal judges it might be difficult for this to see the light of the day (Adejumo, 2011).

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 m 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 ISO clays 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 prosecutions 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 Mct, 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 arid members of election petition tribunals. The thousands 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 is 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 Nwangwu (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 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 INEC 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 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 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 as 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).

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 PDF 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.

Ahmada et al (2015) remarked that the primary reason for the impending contradictions and malfunctioning of the biometric voting technology in the 2015 general elections depict inconsistent ICT policy that failed to augur well with transition to e-voting. Section 52(1) (b) of the Electoral Act 2010 holds direct connection to major impediment for e-voting adoption. Legal framework as an indispensable condition is a catalyst for INEC and other stakeholders to prepare financial, infrastructural, logistics, human and capital resources required. While it is important to review the constraining electoral acts to allow adoption, it is equally important that such a reform be supported by structural changes in other spheres of the socio-political relations to advance the course of sustainable democracy in Nigeria (Alabi, 2009). Therefore, poor ICT infrastructure as an inherent characteristic of Nigeria, poses serious challenge for transition to e-voting adoption. This is owing to the fact that in developing countries, advanced technologies are often proposed without prerequisite complementary infrastructure. Challenges confronting Nigerian pre-adoption of e-voting technology include inadequate funding, lack of IT specialists, erratic electricity supply, growing level of cybercrime and gender imbalance in access to ICT. Hence, development of robust technology such as e-voting system is closely associated with electricity supply (Onyekwelu & Akomolafe, 2010). Adequate provision of electricity is required to operate polling place (client) voting machines whereas internet connectivity is required for internet (i-voting). In addition, comprehensive biometric data for identification and monitoring election, a basic requisite for e-voting adoption, is lacking (Onu & Chiamogu, 2012). Edokpayi (2015) observed that from the onset, even with the introduction of PVCs and smart card readers, it was clear, from knowledge of hindsight, that some people would seek victory for their parties by any means necessary. Hence, there were bound to be flashpoints of trouble, like Rivers, Abia, and Akwa Ibom States, where crisis ensued notwithstanding the use of biometric voting technology. The most disturbing allegation was that of ballot box snatching, voter intimidation and tampering with collated figures.

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 burr an 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).

Gaps in the Literature

The essence of literature review is to interrogate the opinions of scholars and existing knowledge in order to establish areas of incomplete or inconclusive knowledge and build upon the gap therein. Hence, the review of extant literature has revealed a gap in knowledge regarding the subject matter. Opinion of scholars and works

such as Nkansah (2015), Authman (2004), Egbewole (2010), Popoola (2007), Ubanyionwu (2012), Adejumo (2011), Falana (2014) and Electoral Act 2010 (as amended) were reviewed. The thrust of their submissions is that unending and unresolved post-election disputes especially election petitions are becoming a threat to electoral democracy in Nigeria. Some of these scholars argued that post-election cases are unnecessarily delayed owing to institutional, structural, and corruption-related factors. They went ahead to proffer solutions and the way forward.

Other works reviewed include Mordi (2016), European Union Election Observation Mission (2015), Edokpayi (2015), Onu E.Chiamogu (2012), Onyekwelu & Akornolafe (2010), Alabi (2009),Ahmadaetal(2015), Nwangwu (2015), Aziken (2015) and Nwangwu (2015). The opinions highlighted in these works dwelt extensively on the experience, use and performance of the biometric voting technology in the conduct of 2015 general elections in Nigeria. Specific areas of concern and discussion included the issues of failure-rate of the technology and the level of adaptation of INEC staff in handling the equipment. Salient arguments were divided across the success and inefficiency of the system.

However, the discussion regarding the use of biometric voting technology and its effect on post-election disputes in the 2015 general elections is yet to receive any intellectual attention or even attract attention of scholars for discussion. For all the energy invested in interrogating extant literature, there is yet to be seen any fruitful effort to draw up the link or even delve into the discussion in the first place. Hence, we maintain that there is an existing gap in knowledge in establishing thus; (i) Whether the use of biometric voting technology significantly reduced post-election petitions in the 2015 general elections in Nigeria; and (2^ Whether the malfunctioning of the Smart Card Readers occasioned high increase in inconclusive elections during the 2015 general election in Nigeria.

Theoretical Framework

This study is based on the chaos theory. Proponents of chaos theory include Henri Pioncare (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.

In essence, Chaos theory offers mathematical explanation to behaviour of dynamical systems that are highly sensitive to initial conditions. Small differences in initial conditions (such as those due to rounding errors in numerical computation) yield widely diverging outcomes for such dynamical systems, rendering long-term prediction impossible in general (KeUert, 1993). This happens even though these systems are deterministic, meaning that their future behaviour is fully determined by their initial conditions, with no random elements involved. In other words, the deterministic nature of these systems does not make them predictable. This behaviour is known as deterministic chaos, or simply chaos (Werndl, 2009). A deterministic system has an error that either remains small (stable, regular solution) or increases exponentially with time (chaos).

Importantly, Gleick(1987:17) noted that:

Edward Lorenz was an early pioneer of the theory. His interest in chaos came about accidentally through his work on weather prediction in 1961. Lorenz was using a simple digital computer, a Royal McBee LGP-30, to run his weather simulation. He wanted to see a sequence of data again, and to save time he started the simulation in the middle of its course. He did this by entering a printout of the data that corresponded to conditions in the middle of the original simulation. To his surprise, the weather the machine began to predict was completely different from the previous calculation. Lorenz tracked this down to the computer printout. The computer worked with 6-digit precision, but the printout rounded

variables off to a 3-digit number, so a value like 0.506127 printed as 0.506. This difference is tiny, and the consensus at the time would have been that it should have no practical effect. However, Lorenz discovered that small changes in initial conditions produced large changes in long-term outcome, Lorenz's discovery, which gave its name to Lorenz attractors, showed that even detailed atmospheric modeling cannot, in general, make precise long-term weather predictions.

Chaotic behaviour exists in many natural systems, such as weather and climate, road traffic, financial economics, political systems etc (Lorenz, 1963; Ivancevic and Ivancevic, 2008). The theory has applications in several disciplines and diverse spheres of life (Brooks, 1998; Safonov et al, 2002).

Theory Application

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 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 March 28 and April 11 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 post-election petitions. This reaffirms the opinions of chaos theorists who insist that such possibility of miscalculation in the use of electronic computers would likely affect that expected accuracy of the process yielding widely divergent outcomes and rendering long-term prediction impossible in general. This means that the gross inefficiency and malfunctioning of the biometric voting

technology undermined the genuineness of the process and expected outcome of the results. This explains the reasons for considerable number of post-election petitions by aggrieved parties and series of Inconclusive and re-run elections despite the general belief and expectation that the use of biometric voting technology will ameliorate to a significant extent the number of post-election petitions and inconclusive elections.

METHODOLOGY

This study adopted qualitative method of data collection. Qualitative method involves the act of extracting valuable information from the available evidence so as to reach a conclusion (Sun, 2009). This method was therefore used to source information from such secondary sources of data such as textbooks, journal articles, internet materials, and national dailies as well as organizational/ institutional publications such as National Bureau of Statistics Annual Reports, Independent National Electoral Commission (INEC), Election tribunal pronouncements, European Union Election Observation Missions Election Monitors, Electoral Act 2010 (as amended) etc. that contain relevant information on the introduction of Biometric Voting Technology and the conduct of the 2015 General election in Nigeria.

This study adopted ex-post facto research design. The ex-post facto research design is particularly a time-series design in which there are series of pre-measurement and post-measurement or before and after observations required for establishing causal relationships or cause-effect relationship (Leege and Francis, 1974),

01 02 03 04 X 05 06 07 08

There are series of pre-measurement and post-measurement, but the change between 04 and 05 is the quasi-experimental treatment, that is, the impact of biometric voting technology and challenges faced in 2015 general elections in Nigeria. In other words, the difference in scores (i.e. post-election petitions and rising cases of inconclusive elections) from 04 and 05 is attributed to the causal event (i.e. the unreliability and malfunctioning of the biometric voting technology/smart card readers in the 2015 general elections in Nigeria). Again, the difference between an expected effective performance of biometric voting technology in the 2015 general elections in Nigeria (04) and the inability to achieve conclusive elections (05)

being attributed to the unreliability and malfunctioning of the biometric voting technology/ smart card readers in the 2015 general elections in Nigeria. The design despite its lack of control group overcomes for a wide variety of threat to internal validity; however, the principal threat to the design is history. The series of before observations from 01 to 03 and after observations from 06 to 08 will be used to control for the interactive effect of history.

We adopted qualitative descriptive analysis in this study. As articulated by Asika (2006) quantitative descriptive analysis is used to summarize a mass of information generated in a study, so that appropriate analytical methods could be used to further discover relationships among the variable. For lie quantitative descriptive analysis, we used logical data interpretative model to interpret the facts generated from the fieldwork undertaken. Qualitative descriptive analysis, according to Asika (2006), essentially has to do with summarizing the information generated in the research verbally. Qualitative descriptive analysis moves farther into the domain of interpretation because effort is made to understand not only the manifest but also the latent content of data with a view to discovering patterns or regularities in the data.

Effectiveness of Biometric Voting Technology in the 2015 General Elections in Nigeria

The process involved in the use of biometric voting technology in the 2015 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.

- 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%.
- 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 . 214for the demonstration had their fingerprints successfully authenticated.
- 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.
- 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, 2015:3).

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 thumb-prints;
- 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;

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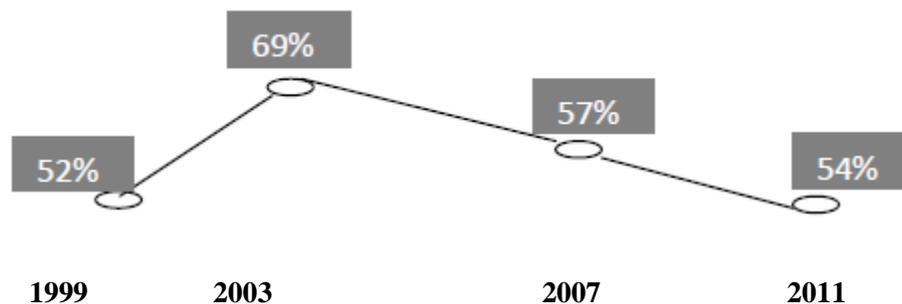
- there was a case where the card reader did not correspond with the manual;
- some card readers stated card mismatch information;
- some of the card readers had incorrect setting; and during the Governorship and SASS Elections, some 'Card readers still had data from the March 28 elections on them (Election Monitor, 2015, pp. 46-47).

Most of these hitches as reported by Election Monitor characterized the Presidential and NASS Elections. (NEC 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.

Biometric Voting Technology and 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%, the figure below shows the specific level of voter turnout in 1999, 2003, 2007 and 2011 general elections in Nigeria. Figure 1: Nigeria Presidential Election Turnout, 1999-2011



Source: Independent National Electoral Commission

However, voter turnout 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). Table 1 further shows 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 Voters	No. of Registered	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	44

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.	Zarnfara	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.

Effect of Biometric Voting Technology in Reduction of 2015 Post-Election Petitions in Nigeria

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 (INEC) 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. This, 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 slant at the tribunal (high court) and terminate at the Supreme Court [three steps). "The presidential poll tribunal cases start at the Presidential Pod 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 pod 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 pod 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' pod 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 Master web, 2014).

Hence, prior to the 2015 General Elections, the Chief Justice of Nigeria, Mahmud Mohammed had on February 3, 2015 inaugurated 242 judges who were selected to serve at various elections petition tribunals. Section 134 of the 2010 Electoral Act provides the stipulated duration for election petitions. The Act states that:

An election tribunal shall deliver its judgment in writing within 180 days from the date of the filing of the petition. An appeal from a decision of an election tribunal or court shall be heard and disposed of within 90 days from the date of the delivery of judgment of the tribunal.

Under the same Section 134 of the Electoral Act 2010, all petitions must be filed within 21 days of the declaration of the result of an election. At the conclusion of the 2011 elections by the 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.	President	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 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. The former acting National Chairman of INEC, Hajia Amma Zakari, noted that: "...the number of election petitions after the 2007 general elections stood at 1,290; after the 2011 genera/

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 scan news, 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 73 1 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 20 1 Ho 73 1.

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 postelection 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 postelection petitions in 2015 was less than 9 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 POP, 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 accredit 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 Z-one 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. a 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-petition-taken-to-tribunals](http://www.dailytrust.com.ng/Sunday/index.php/interview/.20653-2015-elections-297-petition-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 geopolitical 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 post-election petitions have

emerged as shown in Table 3. The data and empirical evidence provided in this section has therefore confirmed and validated our.

Hypothesis 1

Which states that, the use of biometric voting technology resulted to significant reduction in post-election petitions in the 2015 general elections in Nigeria.

Hypothesis 2

The malfunctioning of the Smart Card Readers occasioned high increase in inconclusive elections during the 2015 general election in Nigeria.

Role of Biometric Voting Technology in promoting 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 bedeviled 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.

Importantly, Section 53 of the Electoral Act 2010 (as amended) specifically condemns over-voting and prescribes what should be done in the event of such occurrence. The Act says in Section 53 (2);

Where the votes cast at an election in any polling unit exceed the number of registered voters in that polling unit, the result of the election for that polling unit shall be declared void by the Commission and another election may be conducted at a date to be fixed by the Commission where the result at that polling unit may affect the overall result in the Constituency." Subsection (3) says: "Where an election is nullified in accordance with Subsection (2) of this section, there shall be no return for the election until another poll has taken place in the affected area.

In addition, INEC approved guidelines and the Regulations of the 2015 general elections in pages 22 - 23, and Paragraph 4, Section N, empowers the Returning Officer to act as follows: "Where the margin of win between the two leading candidates is not in excess of the total number of registered voters of the polling unit(s) where elections were cancelled or not held, decline to make a return until another poll

has taken place in the affected polling unit(s) and the result incorporated into a new form, form EC 8D and subsequently recorded into Form EC 8E for Declaration and Return." These are what give legal backing to INEC to declare elections inconclusive (Punch News, April 13, 2016).

Although a number of previous elections had been declared inconclusive and supplementary elections held to conclude them later particularly because the basic threshold to declare a clear winner was not met. Hence, this is not the first time Nigeria would be witnessing a trend of inconclusive elections and resultant supplementary elections. There was supplementary election for Ekiti State governorship election in 2009. The Anambra Central senatorial constituency also had one in 2011. Others are the Imo State governorship election in 2011; the Oguta constituency of Imo State 2013; and the Anambra State governorship election in 2013. However, the 2015 general elections has occasioned high increase in the number of inconclusive elections recorded at the aftermath of the election (The Nation, December 16, 2015).

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 noted 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 for 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 introduction of the Smart Card Reader, has been at the centre of these controversies leading to election cancellation or inconclusive elections (Premium Times, Septembers, 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 were 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. On Saturday, April 9, 2016, the Independent National Electoral Commission conducted elections into the six Area Councils of the Federal Capital Territory, held the polls into Gwagwalada, Kuje, Abaji, Bwari, Kwali and the Abuja Municipal Area Council but declared five out of the six Area Councils' chairmanship positions, with the exception of that of Bwari, inconclusive. The reasons advanced for that include, over-voting and non-use of Smart Card Readers for voter accreditation. The INEC Resident Electoral Commissioner for the Federal Capital Territory, Prof. Jacob Jatau, announced a supplementary election to be held in the affected 39 polling units in 20 registration areas of the capital city on Wednesday, April 12, 2016 (Punch News, April 13, 2016).

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 re-polling 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 therefore forms a strong explanation for the reasons of inconclusive elections and that consequently 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. For instance, in Edo state in the South-South, 10.47% of polling unit results were cancelled by the INEC. 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. The data and empirical

evidence provided in this section have therefore confirmed and validated our hypothesis 2 which states that, the malfunctioning of the Smart Card Readers occasioned high increase in inconclusive elections during the 2015 general elections in Nigeria.

SUMMARY AND CONCLUSION

This study examined the biometric voting technology and the challenges of the 2015 general elections in Nigeria. The review of extant literature showed a researchable gap in knowledge upon which two essential hypotheses were derived and they determined the course of the study, namely: (1) The use of biometric voting technology did not contribute to significant reduction in post-election petitions in the 2015 general elections in Nigeria, and (2). The malfunctioning of the Smart Card Readers occasioned high increase in inconclusive elections during the 2015 general elections in Nigeria. To validate the stated hypotheses, we adopted the qualitative method of data collection. In essence, secondary data were utilized in empirical verification of the hypotheses. Qualitative method of data analysis was used to analyze the data so generated.

The strength of the analysis was generally boosted with the use of logical data tables. We relied on the chaos theory to provide theoretical justification for the study. This study therefore established that the use of biometric voting technology did not contribute to significant reduction in post-election petitions in the 2015 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 (NEC officials and voters. 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. 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 (NEC on 13 January, is 42.76%.

Therefore, at the conclusion of the 2011 elections a large number of aggrieved candidates and parties seeking judicial redress over perceived irregularities in the conduct of the election filed petition at the tribunals. According to available statistics, the number of election petitions filed after the 2003 General Elections was 560.

After the 2007 general elections the number increased to 1,290; and 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 stood at 611.

Therefore, a record of 611 post-election petitions in 2015 was less than 9 percent reduction compared to the 731 recorded in the preceding 2011 election. This can never be considered 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.

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-Levaa 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 resulting to gross disenfranchisement. The regions that had more number of post-election petitions were the states in the Southern geopolitical 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 post-election petitions have emerged. 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 general election 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 has so far conducted 2 governorship re-run elections, one council election and over 80 re-run legislative elections across the country.

INEC conducted elections into the six Area Councils of the Federal Capital Territory, Gwagwalada, Kuje, Abaji, Bwari, Kwali and the Abuja Municipal Area Council but declared five out of the six Area Councils' chairmanship positions, with the exception of that of Bwari, inconclusive. Supplementary elections were held in 39 polling units in 20 registration areas of the Abuja capital city.

RECOMMENDATIONS

This study has the following recommendations:

- Independent National Electoral Commission (INEC) should embark on extensive timely institutional reforms including training of its regular and ad-hoc staff in order to acquaint them adequately with the technicalities that are involved in the operation of biometric voting system before the next general elections.

- The INEC should test-run and operate as many smart card readers as possible 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 INEC especially to stretch into provision of accommodation and transportation logistics for INEC staff/ad-hoc staff during elections to guarantee finely 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.

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