

# Journal of Social and Political Sciences

Ojo, John Sunday, and Ihemeje, Godwin. (2019), Designing E-Voting as an 'Apparatus' for Combating Election Rigging: A Nigerian Model. In: *Journal of Social and Political Sciences*, Vol.2, No.3, 582-601.

ISSN 2615-3718

DOI: 10.31014/aior.1991.02.03.100

The online version of this article can be found at: https://www.asianinstituteofresearch.org/

Published by: The Asian Institute of Research

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# Designing E-Voting As An 'Apparatus' For Combating Election Rigging: A Nigerian Model

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#### Abstract

This is a proposed Nigerian model of e-voting. The lessons learnt and huge successes recorded from countries that have practiced e-voting system such as Belgium, Brazil, Canada, Estonia, France Germany, India, Ireland, Netherlands, Norway, Switzerland, United Kingdom and the United States of America beaconed hope for adopting E-voting system as capable of proffering solution to electoral rigging in emerging Nigerian democracy. This paper concludes that while electronic voting is not a magic wand, it is the surest way yet for Nigeria to join the league of countries that have wiped out electoral fraud, which is the worst form of corruption. Concurrently, it is also the best way to hand over for the incoming regimes.

Keywords: Election, E-voting, Election Rigging, Model, Nigeria

#### **1. INTRODUCTION**

"The use of biometric would eliminate ballot manipulation and snatching of ballot boxes on election day......electronic voting would make the election in Nigeria more credible.

In most developing countries, electoral processes preceding democratic governance is characterized with a high rate of fraudulent practices ranging from stolen of ballots, falsification of vote counts or rigging, improper voting and votes lost through invalid ballot marks due to ignorance and inadequate prior awareness and negligence (Olaniyi et al., 2011). In a democratic society, the voting system is no doubt a vital tool that allows people to elect the leader of their choice in government or society. However, the voting process in developing countries, Nigeria inclusive has been faced with a lot of challenges associated with traditional voting systems prone to tampering democracy and security infringements (Aranuwa & Oriola, 2012). Despite her gargantuan economic strength and political recognition in African nations, the fraudulent election has been a major political problem encumbering democratic institution in Nigeria (Awopeju, 2011). Nonetheless, Nigeria's democracy is still considered pertinent to the most populous nation in Africa with a population of about 190 million (World Bank, 2019), and in fact, Nigeria is so giant by population such that people say, 'where Nigeria goes, so goes Africa.' Therefore, much is expected from Nigeria. What this means is that the way she conducts her elections serves as an example to other African democracies. Nigeria gained independence from the British imperialist in 1960, and was born into

democracy at independence. The roots of democracy were yet to sprout when the civilian rule collapsed owing to a lot of factors, chief among which is the flawed election.

The history of Nigerian democracy synecdoche's monetization of vote, stuffing of ballot boxes, under-age voting, unlawful printing of voters' cards; snatching of ballot boxes, unlawful refusal to provide election materials, inflation and falsification of election results, illegal compilation of non-existing voter's name, intimidation of party agents, voters and electoral officers; and other irregularities amounted to election rigging which downplays and potentates fraudulent electoral management from Nigerian political independence. Nigeria's democracy has been misguided and derailed from the fundamental platform of global conventional democratic traditions. Over the years, especially from independence, Nigerian democracy has symptomized egregious flaws in its entire electoral conducts until the present stage which cue political diaphragms' in many geo-political zones in the country. Election rigging, therefore, becomes Nigerian political culture which undermines ideal democracy.

Sadly, all manners of forbidden dimensions to electoral fraud characterized virtually all the elections, including the recent elections. In most cases, such acts were carried out in collaboration with critical agencies saddled with the responsibility of conducting an election, and also, the support of the government in power, including their supporters. From ballot fixing and connivance with electoral officials and party agents to influencing election results, intimidation and harassment are the familiar elements in a typical Nigerian election which have continued to grow as a culture. This is because, for many, it is a sure way to electoral success since a credible election as a process is a game of chance (ThisDay Newspaper, 2013). The modern-day problems of Nigeria are traceable to the imposition of candidates for election; fraudulent nomination of candidates for election; rigged election for the same candidates; the Courts upholding the same rigged election. All of these culminate in weak leadership, incapable hands, and wrong people mounting the saddle of power and the problems of the country not only remain unsolved but increase exponentially (Aisedionlen, 2012).

For an election to withstand the test of time, it must be robust and be ready to withstand a variety of fraudulent behaviors. It must also be sufficiently transparent and comprehensible so that voters and losers can accept the results of the election (Ajiboye et al., 2013). Democracy and voting are inseparable because the majority opinion determines the outcome of an election or policy. Voting is by far the most important means in democratic decision-making. Although numerous voting methods have been implemented since the dawn of democracy, a certain degree of trial and error could always be expected according to which voting method was used (Olaniyi et al., 2011).

Elections conducted since Nigeria's independence have been played in a do or die affair, and this has made the peace-loving Nigerians to be dead scared in exercising their voting rights, hence the suicidal nature of the politics. Evidence has shown that the rate of citizen participation in elections these days have drastically reduced due to the limited choice or lack of qualified candidates. Lack of candidates with vision has made the electorates politically weak. Sometimes, the electorates are disenfranchised, and the alienated political barons employ the use of coercion to seize power. Election riggings in Nigeria were evident in 1964/1965, 1979, 1983,1993,1999,2003 and 2007 general elections. Between 1999 and 2007, election riggings have accompanied with bloodshed and this have claimed the lives of so many Nigerians; especially popular contestants, while these political killings are executed by hired assassins from wicked politicians who want power by all means. The contemporary political barons in Nigeria impose gullible electoral officers who employ various tricks to win the election for their employers to the detriment of the masses and popular candidates. This, however, has made the system very boring and many have resorted to staying at home during electioneering for fear of being intimidated or coerced to vote against their will, and this is too bad for a country that is desperate to institutionalize a consolidated democracy (Nwokeke & Jayum, 2010).

Formerly, when elections were made traditionally, organizers determine who is eligible to vote and who should not even move close to polling stations. This may involve a formal registration period or making a formal announcement of the age of voters or other factors that may make one eligible to vote. Once the election begins,

the administrator may validate the credentials of those attempting to vote. In contrary to the traditional way of voting, electronic voting is essential because it considers ways in which the polling tasks can be performed electronically without sacrificing voter privacy or introducing opportunities for fraud. In order to determine whether a system performs these tasks well, it is useful, however, to develop a set of criteria for evaluating system performance. The criteria to be developed are such as accuracy, democracy, convenience, flexibility, privacy, verifiability, and mobility (Ajiboye et al., 2013). Elections and voting are fundamental to any consensus-based society. They are one of the most critical functions of democracy. There are a number of voting systems adopted all over the world with each of them having its peculiar problems. The manual voting system still appears prominent among the developed and developing nations, but with considerations being given to an electronic alternative with a view to showing most of the short comings. Furthermore, with the increased interest and attention on e-government, e-democracy, and e-governance, e-voting initiatives have gained more significance. Thus, many countries are piloting with various e-voting models and systems in order to enable voting from anywhere; also, international organizations are developing standards and recommendations in this area (Okediran et al., 2012). These countries of the world include Belgium, Brazil, Canada, Ghana, Estonia, Finland, France Germany, India, Ireland, Italy, Kazakhstan, Netherlands, Norway, Romania, Philippines, Switzerland, United Kingdom and the United States of America among others that have practiced e-voting system with huge successes. Therefore, in proffering solution to the salient problems baffling the Nigerian electoral system, e-voting is considered as an alternative strategy to guarantee and restore citizens' confidence in the Nigerian electoral system.

It is clearly stated that electronic voting is not a magic wand or rocket science; rather, it is the surest way yet for Nigeria to join the league of countries that have wiped out electoral fraud, which is the worst form of corruption. It is also the best way to hand over (Vanguard News, 2014). The application of ICT in the proper execution of democratic rights has made Electronic Voting (E-Voting) systems one of the paramount pillars of e-governance. E-voting involved the use of computerized voting equipment in the process of voter's registration, ballot casting and counting, and ballot recording in a trustable manner (Cetinkaya & Koc, 2009; Olaniyi *et al.*, 2011 cited in Olaniyi et al. 2013). Most electronic system of voting offers the following multiple advantages over the traditional paper-based voting: increased participation in democratic governance as more citizens have access to express their opinion, reduced costs as the materials required for printing and distributing ballots as well as the manpower required to govern poll sites are considerably reduced, flexible as it can be tailored to support multiple languages, greater speed and accuracy in placing and tallying votes as e-voting step by step processes help minimize the number of miscast and rejected votes, lower election fraud in endangered countries with young democracies (Sodiya et al., 2011; Manish et al., 2005; Okediran *et al.*, 2011a cited in ibid).

Electronic voting in polling stations is in place in some of the world's largest democracies, and Internet voting is used in some, initially mainly small and historically conflict-free countries. Many countries are currently considering introducing e-voting systems with the aim of improving various aspects of the electoral process. E-voting is often seen as a tool for advancing democracy, building trust in electoral management, adding credibility to election results, and increasing the overall efficiency of the electoral process. The technology is evolving fast, and election managers, observers, international organizations, vendors, and standardization bodies are continuously updating their methodologies and approaches. Properly implemented, e-voting solutions can eliminate certain common avenues of fraud, speed up the processing of results, increase accessibility and make voting more convenient for citizens in some cases, when used over a series of electoral events, possibly even reducing the cost of elections or referendums in the long term (IDEA, 2011). An electronic voting (e-voting) system is a voting system in which the election data is recorded, stored, and processed primarily as digital information (Network Voting System Standards, cited in Gritzalis, 2002). This paper, therefore, explores the e-voting system as an apparatus for combating election rigging in Nigerian democratic space. The paper suggests an electronic voting model for the general conduct of the election in Nigeria.

In its structural form, this paper is divided into ten sections. Sections one and two capture the introduction and the conceptual framework, while sections three and four deal with major elections conducted in Nigeria since independence, and " democracy and electioneering rigging: a brief historical overview from Nigeria political

independence." Sections five and six consider the methodological approach of countries practicing the e-voting system and design of e-voting model for sustainable democracy in Nigeria. The potential benefits of an e-voting system and overview of selected countries practicing e-voting system were the foci of sections seven and eight. Sections nine and ten critically examine the possible challenges for effective commencement of the e-voting system in Nigeria, including conclusions and recommendations.

#### **1.1. PROBLEM STATEMENT**

Lack of transparency and other problems associated with the semi-manual method of casting a vote in Nigeria has indeed called for a more robust electronic voting system (Ajiboye et al., 2013). Indeed, in many ways, election in Nigeria is akin to war (Jega, 2012), and avoidance of election war can be achieved through effective and efficient security. Security is crucial to electoral integrity, but security forces have traditionally done little to prevent rigging or violence and have often been bought by politicians and complicit. Lower-level courts are often corrupt, impunity is insidious and the rule of law at best weak. No one has been convicted of an electoral offense since independence (International Crisis Group, 2011). Since the fraudulent nature of Nigerian electoral system, the call for absolute restructuring for the effectiveness and efficiency in the overall conduct of elections becomes a political necessity for emerging Nigerian democracy.

#### 2. CONCEPTUAL FRAMEWORK

In this section, an attempt is made to critically identify and examine relevant concepts that address the discourse with a view to establishing a constructive narrative.

#### 2.1. Election

The election is a barometer through which citizens exercise their sovereign political right to choose among various alternative political contestants. It is a mechanism for the selection of political representatives. According to Dickerson, M.et al (1990) cited in Nwokeke & Juyum, (2011), the election is defined as a post mortem that investigate the record of office holders whose actual performance may have little to do with promises made when they were previously elected. This is a way of censuring, reposing function in a ruler that is popularly accepted and ejecting an unpopular leader. This method shuns mutiny and chaos in a system hence, it reflects peaceful hand-over from one administration to the other so long as the process is devoid of election rigging.

Elections are central to competitive politics. They are central because, ideally, they should provide the opportunity for yesterday's winners to become today's losers, and for yesterday's losers to become today's winners. The model of democracy on which this theory of elections is based is liberal democratic. The centrality of elections to liberal democratic politics also presupposes the importance, particularly of impartial electoral administration. This is because the indeterminacy of elections the possibility of erstwhile winners becoming losers and erstwhile losers becoming winners-which is an inherent and necessary prerequisite of liberal democratic politics is to a large extent a function of an impartial administration of elections Jinadu, 1997:1). Elections that give voice to the people are in essence a critical means of social conflict management through peaceful deliberations and decision-making processes in which 'winners' carry out promised policy initiatives and programs and 'losers' are given the opportunity to serve as a loyal opposition, and to try again in future competitions (UNDP, 2009:1). The election is crucial because it gives the procedure that allows members of an organization or community to choose a representative who will hold positions of authority within it. In any democratic system, it is crucial that elections be free and fair (Igbuzor, 2010). The election is defined as one procedure and preferences of a particular kind. The two features of this definition are procedure and preferences. By procedure, the concept it used to describe a special way of doing something. Preference connotes choice between alternatives. During elections, the electorate is given the opportunity to choose between alternative programmes of contestants (International Encyclopaedia of Social Science, cited in Awopeju, 2011). This facilitates and shapes democracy. Democracy is regarded as the best form of government because its ideology promotes peoples' will. The people have the political right to decide who

should govern them in a free and fair conduct called 'election.' Therefore, elections constitute an essential principle in a liberal democracy. Election in a democracy is very important because it is through which the expression of the people is shown via legitimacy and leadership succession.

#### 2.2. Election rigging

Election rigging may be conceptualized as an application of electoral fraud and falsification of election results in a political system. It means fraudulent management of pre-election, election and post-election activities which may include illegal registration of voters, a false compilation of election results, snatching of ballot boxes and alteration of election results. Election rigging may also connote monetization of election and absolute manipulation of electoral laws. Election rigging occurs when a loser is public pronounced a winner with the help of electoral umpire. It is a total violation of electoral acts that guides the conduct of an election. According to Nwabueze (2003), cited in Nwokeke & Juyum (2012) states that election rigging refers to electoral manipulations which are palpable illegalities committed with a corrupt, fraudulent or sinister motive to influence an election in favour of a candidate or to buy his by way such as illegal voting , bribery, cheating, and undue influence, intimidation and other form of force exerted on the electorates, falsification of results, fraudulent announcement of a losing candidate as the winner (without altering the recorded results). Election rigging was perfected in the elections conducted in 1964, 1965, 1979, 1983, 1999, 2003 and 2007.

Election rigging connotes any form of undue authority or power that influence and manipulate election result in a dubious way to protect a particular interest against the interest of the generality of the masses. When the interest of the people is articulated in a free and fair election, the government in power tend to enjoy the sovereign legitimacy of the people, but election rigging can thwart the interest of the people hence the dubious imposition of an unpopular candidate. The sad end is governments' lack of people's support, which is one of the basic principles of democracy (Ibid).

#### 2.3. Democracy

One holds the view that democracy is a system of social order in which those who govern are elected under agreed laws, those so elected govern in accordance with agreed laws, and both the governed and the governors subject themselves to agreed laws and institutions of the given society. It is submitted that where any of the three conditions above is missing, what is in operation is not democracy whether "*homegrown*" or "*imported*" because for democracy to exist, it must be accepted as a way of life, a consensual cultural attitude of a people. Where the first condition of the definition above is missing, that is where there is no election of leaders in accordance with agreed Laws; there is no democracy at all. This includes where only a purported election has taken place. Where the second condition, that is where those elected refuse to govern in accordance with agreed laws, a situation which one describes as totalitarian democracy (a polite description of institutionalized dictatorship) manifests; and where the third condition is lacking, that is where both the governed and the governors refused to subject themselves to agreed Laws and institutions, the situation, as in Nigeria, is potentially anarchical (Ahamba, 2005:2-3).

#### 2.4. E-voting

E-voting refers to an application of technological mechanism through which citizens exercise their civic responsibility in the selection among various political contenders. It embraces registration of voters and political contestants, voting during election and compilation of election results through computer technology. E-voting entails a computerized electoral administration in a country practicing democracy. It is a tool for measuring and assessing election winners, thereby advocating transparency in an electoral system. This system creates standardization in electoral administration. It takes a technological approach in its general electoral system, which includes computation, monitoring, counting of votes, controlling, coordinating, and pronouncement of election results.

E-Voting, in the wider definition recommended by the Council of Europe, is the use of electronic means in one or several means of election procedures (Marie-Villers, 2007). Electronic voting is a form of computer-mediated voting in which voters make their selections with the aid of a computer. The voter usually chooses with the aid of a touch-screen display, although audio interfaces can be made available for voters with visual disabilities. To understand electronic voting, it is convenient to consider four basic steps in an election process: ballot composition, in which voters make choices; ballot casting, in which voters submit their ballots; ballot recording, in which a system records the submitted ballots; and tabulation, in which votes are counted. Ballot casting, recording, and tabulation are routinely done with computers even in voting systems that are not, strictly speaking, electronic. Electronic voting in the strict sense is a system where the first step, ballot composition (or choosing), is done with the aid of a computer (*Encyclopedia Britannica, 2013*).

Electronic voting is a broad term that means a computer is being used to fulfill some or all of the voting process. There are many kinds of electronic voting which range from systems where the vote is both collected and counted electronically, to systems where the computer simply marks a paper ballot on the voter's behalf. Some electronic voting systems can be completely online, whereas others may be provided at a nominated location or require specific hardware or software (Victorian Electoral Commission). Electronic voting is a term encompassing several different types of voting, embracing both electronic means of casting a vote and electronic means of counting votes. Electronic voting technology can include punch cards, optical scan voting systems, and specialized voting kiosks (including self-contained Direct-recording electronic (DRE) voting systems). It can also involve the transmission of ballots and votes via telephones, private computer network, or the Internet. Electronic voting technology can speed up the counting of ballots and provide improved accessibility for disabled voters (Stenbro, 2010).

YEAR REGIME GEO-POLIT ZONE 1960-1966 Civilian South-South		GEO-POLITICAL ZONE	ELECTORAL CHAIRMEN	ASSESSMENT Flawed	
			Eyo Ita Esua		
1976-1979	Civilian	South-South	Michael Ani	Flawed	
1983	Civilian	South-South	Victor Ovie-Whiskey	Flawed	
1987-1989	Military	South-East	Eme Awa	Flawed	
1989-1993	Military	South-East	Humphrey Nwosu	Free and Fair	
1993-1994	Military	South-South	Prof. Okon Uya	Flawed	
1994-1998	Military	South-South	Sumner Dagogo-Jack	Flawed	
1998-1999	Military	South-South	Ephraim Akpata	Flawed	
2000-2005	Civilian	South-South	Abel Guobadia	Flawed	
2005-2010	Civilian	South-East	Maurice Iwu	Flawed	
2010-	Civilian	North-West	Attahiru Jega	Successful but	
				characterized with	
				post-election violence	

#### 3. MAJOR ELECTIONS CONDUCTED IN NIGERIA AND ITS APPRAISAL SINCE INDEPENDENCE

Source: Authors' Compilation

## 4. DEMOCRACY AND ELECTION RIGGING: A BRIEF HISTORICAL OVERVIEW FROM NIGERIAN POLITICAL INDEPENDENCE

Democracy in Nigeria is characterized with negations of ideal democratic traditions. Tracing the historical evolution of election conducts in Nigeria, many elections conducted by various political administrations have been tagged as flaws and lack democratic ethics. The history of election rigging in Nigeria is traceable to the eve of Nigeria political independent, which was later becomes part and parcel of every political regime in Nigeria. Therefore, it is very germane to glance through electoral conduct at the departure of colonial overlord in 1959 which signaled the thorny origin of electoral fraud in Nigeria, therefore election rigging is an age long practice synonymous with Nigerian democratic system. Election rigging is not a new phenomenon, as stated by Luqman (2009) that the history of election in Nigeria's efforts at democratization has been a chequered one. Since

independence electoral conduct in the nation's democratization efforts has been an exercise in futility. This is due to the fact that electoral conduct in the nation's political history has been marred by fraudulent practices, corruption, and violence. It is therefore of little surprise that past efforts at democratization have collapsed at the altar of perverted elections and the electoral process. So bad was the situation that the election period has come to be associated with violence and politically motivated crises. That politics has been turned to a money-making venture, has reinforced the notion of the election as a contest that is meant to be a win at whatever cost possible. This has turned electoral conducts in Nigeria to a war-like process.

In the 1964 general elections in Nigeria, four major political parties- the Northern Peoples' Congress, (NPC), the Nigerian National Democratic Party (NNDP), the Action Group (AG), the National Council of Nigerian Citizens (NCNC) formed political alliance in order to perpetuate their strategies of election rigging. Thus, the Action Group (AG), the National Council of Nigerian Citizens (NCNC) and the Northern Peoples Forum (NPF) formed the United Progressive Grand Alliance (UPGA) on June 3, 1964 while the Northern Peoples' Congress (NPC), the National Democratic Congress (NDC) and the Movement for Democratic Front (MDF) formed the Nigerian National Alliance (NNA) on August 20, 1964 (International-IDEA, 2000: 337 cited in Awopeju, 2011). After the 1964 general election, there was upheaval from the election conducted in the west as a result of some manipulations, and this necessitated for a fresh election in 1965. The 1965 Western election revealed that electoral officers were colliding with the political party that was favored by the federal government to disallow voters from the opposing political party from filling their allocated nomination papers (Nwokeke & Jayum, 2011).

Nigeria has an illiberal democratic regime in which strict guidelines, defined by the constitution and monitored by INEC, govern the registration of political parties. The guidelines seek to ensure that all parties have a national, nonsectarian vision. But the parties have a persistent tendency to factionalize and fractionalize (Ibrahim 1991; cited in Ibrahim, 2007:12). Democracy is, so far, the best-known system of government. This is because of its edifying significance as a mode of governance based on the principle of popular sovereignty, the rule of law, accountability, participation and the right of resistance to unlawful or tyrannical rule (Nzongola-Ntalaja, 2000; cited in Ajayi,2007:142-143). Although there are different conceptions of democracy (Janda, et al. 1997; Ntalaja, 2003 Massoud, 2000; cited in Omodia, 2009:38) however the democratization processes that took place in most African state in the 1990s were geared towards the western liberal democracy which emphasizes the following:

- a. Competitive party politics through constitutionally recognized opposition.
- b. Entrenched fundamental human rights through which the citizens could exercise political participation in the political system.
- c. The existence and adherence to the principle of the rule of law that must guide functional conflicts as regards the processes for power acquisition.
- d. Independent electoral body that should be free from the maneuvering and influence of governmental officials and must be viewed as credible by competing parties.
- e. The principle of political equality which respects the notion of one man, one vote and where the votes of the electorate court.
- f. The notion of a free and fair election, where electorate not intimated nor insecure in participating in elections.

The report prepared by the National Institute for Policy and Strategic Studies just before the 1983 elections, correctly predicted that the elections could not be conducted without massive electoral fraud because the parties in power were not ready to allow others to come to power. The report also showed that only the 1959 and 1979 elections had taken place without systematic rigging. This was noted by Transition Monitoring Group that:

While elections in Nigeria have demonstrated how the political elites at all levels, perpetrated many illegalities in order to maintain their hegemony in politics and in the control of state machinery, the patriotism and resolve of citizens to enthrone democracy has been vividly demonstrated (TMG, 2007: 6).

Those two elections had one point in common: They were held in the presence of strong arbiters, the colonial state, and the military, that were not participants and desired free and fair elections. Therefore, the history of Nigeria electoral system has been a traumatic and egregious one, as it was affirmed that:

"Election debacles have always been our bane: it truncated the first republic, eventually leading into 30-month civil war. Although we managed to come off it in one piece, echoes and scars of that war, as well as cries and allegations of marginalization, remain with us to this day" (The Nation Newspaper).

Kurfi (2005), cited in Ibrahim (2007) observed that rigging is almost synonymous with Nigerian elections. The objective of electoral rigging or fraud is to frustrate the democratic aspirations of citizens who have voted or would have voted into office someone other than the victor. It was noted that:

From 1993, the electoral system in Nigeria has been successful in its exploitation of the citizens and its massive rigging of polls of 2003 and 2007 which put chief Olusegun Obasanjo and Alhaji Umaru Yar'Adua, both of the People Democratic Party (PDP) (The Nation Newspaper).

Interrogating the debate of e-voting and election rigging really demands a constructive response: are Nigerian elections doomed by the machinations of fraudsters who frustrate the people's democratic aspirations? Precisely because of this history of electoral fraud, elections in the country have often been associated with political tension, crisis, and even violence (Adekanye, 1990: 2; cited in Ibrahim, 2007:3). The outcomes of many elections have been so fiercely contested that the survival of the democratic order has been compromised. Accordingly, the 2007 election was colorized in this manner:

The irregularities were so numerous and so far-reaching that the election was a charade and did not meet the standards required for democratic election (TMG, 2007; cited in Collier and Vincente, 2010:6)

This sad history of electoral fraud or rigging has serious implications for Nigeria's democratic future because the phenomenon is growing rather than declining. The principal forms of rigging and fraud were perfected in the elections of 1964, 1965, 1979, 1983, 1999, 2003 and 2007, as it was stated that:

General elections in Nigeria from 1959 to 2007 have been characterized by malpractices and controversies. Thus, how to purge our electoral process in Nigeria of the flaws that have prevented it from achieving even modicum credibility is a great concern in the polity today (Songi, 2009:3).

It is noted that as 2007 election season approached, assassinations of party leaders started. The situation was the same as preceding the 2003 elections. Between June and August 2006, three gubernatorial candidates were assassinated. To understand this kind of mafia-style activity in Nigerian politics, it is important to note that many political parties are operated by political "godfathers," who use money and violence to control the political process. As it was stated by European Union Election Observation Mission to Nigeria that:

"We feel extremely disappointed that things were worse in 2007 than they were in 2003. The 2007 state and federal elections fell far short of basic international, regional standards for democratic elections. The elections were marred by a very poor organization; lack of essential transparency; widespread and procedural irregularities; substantial evidence of fraud; widespread voter disenfranchisement; lack of equal conditions for political parties and candidates and numerous incidents of violence" (Quoted in Daily Independent, Tuesday, May 10, 2011)

The credibility and general acceptability of any election outcomes as well as the legitimacy of the elected government are a function of transparency, freeness, and fairness of the electoral process (Ajayi, 2007:142), the result and outcome of elections have been the subversion of the democratic process rather than its consolidation. It is not surprising that major political conflicts have emerged around rigged elections (Kurfi, 2005, cited in

Ibrahim, 2007). There are also monetization and materialization of politics, which are engendered by mass poverty. Electorates monetize their votes by selling them to the highest bidding contestants. The materialization of votes takes the form of vote exchanges for such intangible quantity of consumable such as rice, table salt, cooking oil and kerosene. Both monetization and materialization are all about securing a living through their votes. When these are involved, the quality of programmes of competing and the qualification and competence of contestants do not count in the choice of the electorates. In these ways, the electoral processes become bastardized. Winning elections at all costs by political competitors consequently becomes a limitation to a credible electoral process (Ajayi, 2007:144).

In 2003, Nigeria conducted the second general election since the return to civilian politics in May 1999. Those elections were almost as contentious as the infamous 1983 elections that precipitated the collapse of the Second Republic. The report by Nigerian observers confirmed numerous reports of fraud in many states across the country (TMG, 2003: 120; cited in Ibrahim, 2007:3). The European Union observers' report also reported widespread election-related malpractice in a number of states in the Middle Belt, the South East and the South (European Commission, 2003: 42; cited in Ibrahim, 2007:3). The varied forms of electoral malpractice and the high number of incidents of electoral violence rekindled old fears that the basic institutional weaknesses associated with the electoral system could bring the democratic experiment to grief. This fear is even more palpable as Nigeria moves toward the 2007 elections, as it was once observed that:

Rigging, violence, and intimidation were so pervasive and on such naked display that they made a mockery of the electoral process. Where voting did take place, many voters stayed away from the polls. By the time voting ended, the body count had surpassed 300 (HRW, 2007; cited in Collier and Vincente 2010:6)

In Nigeria, just like most of the countries in Africa, elections, especially its freeness and fairness constitute the central factor in ensuring democratic survival. This is because the lack of free and fair elections often tends to threaten the democratic process as a result of the legitimacy question. Thus factor no doubt has characterized the democratic experiment of the Nigerian Fourth Republic in that there has been a persistent crisis of legitimacy in governance arising from the poor electoral system (Omodia, 2008; cited in Omodia, 2009:38). In other words, while elections could not be said to be synonymous with the democratic process in that democracy encompasses other attributes, but elections are so central to the operation and survivability of democracy in that it defines the level of freedom exercised by the people in decoding who represent them in government. It also serves as an index of noticing whether the electoral body and the judicial organ of the government are independent of the legislative and executive organ. However, in the Fourth Republic, events have shown that the electoral body is not independent of the party in power. This has been defined in relation to the manner of which the electoral body had conducted elections in a way that advantaged the party in power through poor planning, the device of excluding electorates from voting in places considered to be the strongholds of opposition, through the inadequate supply of voting materials, or late arrival of electoral officers to polling stations (Abdullahi, 2008; cited in Omodia, 2009:38). As this reflects the view of the European Union that:

The Nigeria's elections were not credible and fell far for basic international standards. The election for president, state Governors, and legislators were marred by violence, poor organization, lack of transparency, significant evidence of fraud, voter disenfranchisement and bias (EU,2007; cited in Collier and Vincente, 2010:6)

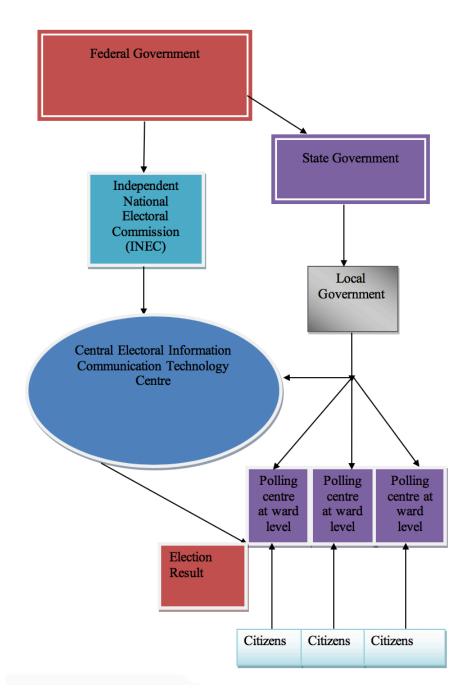
Nigerian democracy is a symbolic reflection of non-compliance with electoral laws. What we have in Nigeria wholly portrayed absolute negation of democratic orders encapsulated in democratic abomination in its entire electoral conduct, thereby amounted to election rigging which makes the general citizens to be despondent in Nigerian democratic practices. Hence, the majority of the citizens are no longer interested in voting and selection of candidates who might have already been concluded and accomplished by ruling political cabals, thereby creating ignominious political future for emerging Nigerian democracy.

#### 5. METHODOLOGICAL APPROACH OF COUNTRIES PRACTICING E-VOTING SYSTEM

Country	E-voting Model	Type of Election	Year of Adoption	E-Voting Device	Assessment Classification	Voters Identification &Verification Mechanisms	Status of E-Voting
United State of America	paper-based e- voting system, direct recording electronic system, and Internet voting	Primary and General elections.	2002	Punch Card Systems, Direct- Recording Electronic	Effective and efficient		
Finland	Paper-based	Local election	2008	Paper-based ballots That would be sent to Server for compilation	Ineffective	Electronic voters card	Stopped
Estonia	the e-ID card that includes cryptographic protocols	Local, Parliamentary and European elections	2005	Mobile identity card	Effective	Electronic voters card	Currently in use
France	Internet voting, postal voting, and proxy voting or by visiting a polling station in France.	presidential and parliamentary elections), regional / cantonal)	2004	voters received a code and a password enabling them to identify themselves on the voting web site by post from the administration	Effective		Currently in use,
Switzerland			2000	uuninistrution			
Belgium	A voting computer is used to help the voter cast his ballot, and the cast ballot is written onto a magnetic card which is then placed into an electronic ballot box, which reads the card (ballot) as it is inserted. DRE with two	European, federal, regional and local elections	1991	a ballot box, a voting machine, a magnetic card Proxy-voting and postal voting.		Voting machines	Currently
	numerical keyboards.	regional and national elections as well as referendums		simple, light and easily storable and transportable machine			used.
India	Stand-alone direct recording machines.	Regional and general elections.	1999			voter identity card	Currently being used.
Netherlands		European, Parliamentary and Local Government	1990	direct recording electronic voting machines			

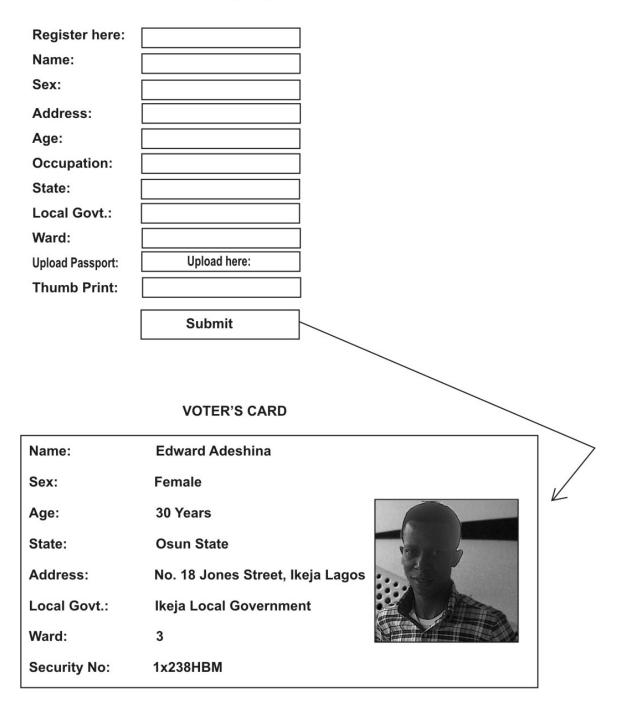
Source: Authors

#### 6. A DESIGN OF E-VOTING MODEL FOR SUSTAINABLE DEMOCRACY IN NIGERIA



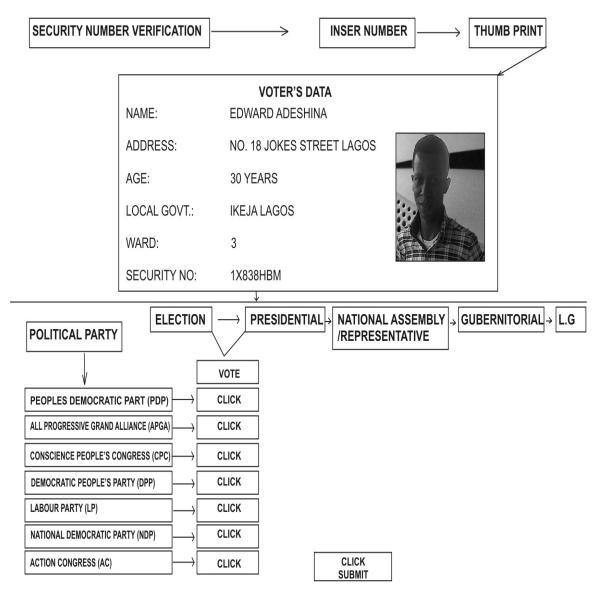
#### Structural Political Framework for E-Voting System in Nigeria

### **E-Voting Registration Model**

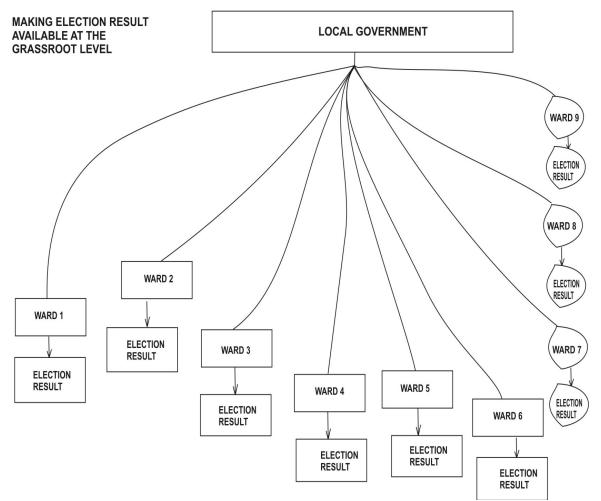


Source: By Authors

### **BIOMETRIC VOTING MODEL**



Source: By Authors



Source: By Authors

#### 7. POTENTIAL BENEFITS OF E-VOTING SYSTEM

Gerlach and Gasser (2012) enumerate the potential benefits of e-voting, which can facilitate the process of combating and ameliorating election rigging in Nigeria:

#### i. Implementation of Political Rights

Use of the Internet and other electronic devices for communication has not only become a standard for work but also for people's private lives. The facilitation of online voting will be an adaption of democratic procedures to people's need for simplicity and convenience.

A more important aspect of e-voting, however, is its potential facilitation of the implementation of political rights. Especially for people with disabilities, the possibility to cast a ballot online can prove to be a major improvement of their capacity to exercise their political rights. E-voting systems, for instance, could be equipped with added features to assist those with visual impairment. Additionally, individuals with disabilities may prefer the use of their home computers, where they provide conveniences over traditional forms of writing and communication.

#### ii. Augmentation of the Participation Rate

Politicians and defenders of democracy in general who seek the increased legitimacy of democratic decisions may hope that e-voting will raise voter turnout.

#### iii. Augmentation of the Quality of Votes

Whether an increase in voter turnout also brings a corresponding increase in the quality of participation depends on different factors. There is, of course, an opportunity to find information online on the issues or candidates running for office. Moreover, the government can post the information they usually send by mail on the e-voting Web site. Since votes are counted electronically, the risk of human error is significantly decreased, and the number of electronic votes should in theory always be correct. In addition to enhancing economic efficiency, this increases the legitimacy of the vote. Since the system asks voters to confirm their choice, there should be no "wrong" votes, i.e., incidents of voters submitting a ballot that does not convey their vote correctly.

#### iv. Other Benefits of an Early Introduction of e-Voting

Adapting the voting process to the digital environment has several benefits. It will not only bring simplicity, but, as a pioneering task, it will allow the state to secure a dominant position in the market for e-democracy systems. In the same vein, IDEA (2011) also suggests the following measures as the major strengths of e-voting:

- > The faster vote count and tabulation.
- > More accurate results as human error are excluded.
- > Efficient handling of complicated electoral systems formulae that require laborious counting procedures.
- > Improved presentation of complicated ballot papers.
- Increased convenience for voters.
- > Potentially increased participation and turnout, particularly with the use of Internet voting.
- > More attuned to the needs of an increasingly mobile society.
- Prevention of fraud in polling stations and during the transmission and tabulation of results by reducing human intervention.
- Increased accessibility, for example by audio ballot papers for blind voters, with Internet voting as well for housebound voters and voters from abroad.
- > Possibility of multilingual user interfaces that can serve a multilingual electorate better than paper ballots.
- Reduction of spoilt ballot papers as voting systems can warn voters about any invalid votes (although consideration should be given to ensuring that voters are able to cast a blank vote should they so choose).
- Potential long-term cost savings through savings in poll worker time, and reduced costs for the production and distribution of ballot papers.
- Cost savings by using Internet voting: global reach with very little logistical overhead. No shipment costs, no delays in sending out material and receiving it back.
- Compared to postal voting, Internet voting can reduce the incidence of vote-selling and family voting by allowing multiple voting where only the last vote counts and prevent manipulation with mail-in deadlines through direct control of voting times.

#### 8. OVERVIEW OF SELECTED COUNTRIES PRACTICING E-VOTING SYSTEM

Technology offers new mechanisms for conducting traditionally manual processes, and elections are no exception. A growing number of countries at various stages of development are considering electronic technologies in electoral processes (IFES, 2013). Therefore, this section of the paper briefly examines the e-voting system in 18 countries of the world where it has recorded great successes. These countries include Belgium, Brazil, Canada, Estonia, Finland, France Germany, India, Ireland, Italy, Kazakhstan, Netherlands, Norway, Romania, Philippines, Switzerland, United Kingdom and the United States of America. These various countries are examined one after the other.

#### 8.1.1. E-VOTING SYSTEM IN BRAZIL

Brazil is an example of a country with a thriving electronic voting system. In 2000, it became the first country to have elections completely by an electronic voting system and has since remained at the forefront of the electronic

voting movement. Electronic Voting Machines for Brazilian elections were developed and first tested in the 1996 elections in Santa Catarina. Thereafter it was used in national elections in 1998, when it then became the only voting method for the 2000, 2002, 2004, and the most recent 2006 elections. Through these election cycles, the voting system has changed – most notably in the operation system running on the machines. This effort to constantly build upon and improve the voting system is likely part of the reason for its strong success. In Brazil, the research and development of electronic voting systems are funded by the Brazilian Supreme Electoral Court (TSE), which is also currently testing ways to improve the system, such as by using digital screens and printing systems. These improvements likely have been a significant source of voter satisfaction, and will continue to emphasize the government's commitment to a fair and effective system in the future (Lin & Espinoza 2007). The introduction of e-voting in Brazil was motivated by economic and fraud-prevention factors. A multi-year approach for the gradual introduction of e-voting was adopted and included the following steps:

1. Voter and civic information including usability and feasibility studies starting in 1986

- 2. Capacity building within the EMB, and digitalization of the result aggregation
- 3. Development of hard- and software, involving local technical expertise
- 4. Testing of equipment in the Brazilian environment
- 5. EMB's final decision on the type of machine fitting the Brazilian context best
- 6. Quality control and testing in various environments
- 7. Authorization of e-voting in 1996 local and municipal elections

8. Post-election review and subsequent quality overhaul Full e-voting roll-out in the 2002 general elections (IDEA,2011).

#### 8.1.2. E-VOTING SYSTEM IN ESTONIA

Estonia is credited to be a pioneer in e-governance and e-democracy. The use of digital channels for different services is steadily widening, nearly half of house-holds have a computer at home, and more than 4/5 of those are connected to the Internet. Estonia is among the first few countries in the world, where ID card with remote identification and binding digital signature functions is compulsory for personal authentication. Almost all Estonian inhabitants are already electronic ID cardholders. Therefore introducing e-voting was a logical step to take (Jabed & Chowdhury, 2013). Internet voting was introduced as an additional voting channel in 2005 and enjoyed widespread trust from the very beginning. Estonia is a conflict-free country that enjoys a high level of trust in its institutions, and e-voting accompanied a wider programme of digitalization of its institutions. Not even massive hacking attacks against Estonia's e-government infrastructure ahead of the 2007 elections undermined this confidence. In 2011 almost 24 percent of votes were cast online (IDEA, 2011). The main feature of Norwegian e-voting scheme is its openness. The Norwegian government is trying to build trust in e-voting by making all the documents related to voting publicly available. They have released all the documents related to architecture and other technical matters. They have also decided to open the source code for the public to investigate the security holes (Jabed & Chowdhury, 2013).

#### 8.1.3. E-VOTING SYSTEM IN IRELAND

Between 2005 and 2009, Ireland invested over 60 million euros in an e-voting solution without VVPAT, before deciding that the system was unreliable and would need further, costly modifications before it could be used. High costs, in combination with a lack of trust, led to the scrapping of e-voting in 2009. In the absence of a solution for the destruction of the unused machines, Ireland still has to cover the storage costs in the foreseeable future (IDEA, 2011).

#### 8.1.4. E-VOTING SYSTEM IN INDIA

Following pilots since 1982, the biggest democracy in the world has successfully used voting machines throughout the entire country since 2002. Two distinct features of the Indian VMs are the low price, significantly lower than

that of most other systems, and a relatively simple technology. The Indian system provides no paper trail, a fact that is widely accepted, given the absolute trust institutionally granted to the EMB. However, the simplicity of the system created controversy around alleged security problems in 2010 and led to the Indian EMB considering the introduction of paper trails in 2011(IDEA, 2011).

#### 8.1.5. E-VOTING SYSTEM IN GERMANY

Germany piloted its first electronic voting machines, supplied by the Dutch company NEDAP, in Cologne in 1998. The trial was seen as successful, and one year later Cologne used electronic voting machines for its entire European Parliament elections. Soon other cities followed suit, and by the 2005 general election, nearly 2 million German voters were using these NEDAP machines to cast votes. Reaction to the use of these electronic voting machines was generally very positive among voters, who found the machines to be easy to use, and among election administrators, who were able to reduce the number of polling stations and staff in each polling station (Goldsmith & Ruthrauff, undated).

#### 8.1.6. E-VOTING SYSTEM IN UNITED STATES OF AMERICA

Election administration in the U.S. is complex and necessitates the involvement and combined knowledge of federal, state, and local officials. Election administration and voting system implementation in the U.S. are decentralized, meaning the role and influence of federal and state government varies from jurisdiction to jurisdiction. The lack of a singular, uniform voting system in the U.S. and decentralized election administration contributes to the diversity of voting system technology used in each election jurisdiction (Franklin & Myers, 2012). Following the 2002 Help America Vote Act, the United States saw a massive investment in voting machines, many without a paper trail. In 2005 and 2007, the US Voluntary Voting System Guidelines (VVSG), currently the most comprehensive guidelines with specifications and requirements for certifying voting machines, were published. By 2008 many states required paper trails, making voting machines without a paper trail obsolete (IDEA, 2011).

As of 2010, 40 states have moved towards requiring paper trails. The above view about e-voting system in the U.S gives room for diversity in electoral administration, while decentralization provides a soft landing for electoral processes through the political instrumentality of multi-level government structures (i.e., federal, state and local government). The patterns and modalities of electoral administrations in the U.S encourage each level of government to design, coordinate, and manage the overall electoral administration. For instance, decentralization in electoral conducts provides an opportunity for the State of Arizona in the U.S to conduct primary election in its own peculiar way. The evolution of the electronic voting system in the U.S is traceable to the period of optical scan and punch card technology, the lever machine was later introduced in 1800 to modernize the existing e-voting system. The nature of the e-voting system in the U.S reveals that there are three methods of casting votes through modern electronic voting system, namely; paper-based e-voting system, direct recording electronic system, and Internet voting, this was noted by Bregman, Deschepper, Friedman, Nowicky & Sherman, (2000) that Arizona Democrats experienced a new voting procedure. Instead of pushing buttons on an electronic voting machine in a public place, they could simply "click away" from the comfort of their own homes. In this election, Arizona Democrats were allowed to cast online ballots - a completely electronic and paperless procedure. In the Arizona Democratic Primary, the online voters were required to give personal information that was comparable to ordinary voting procedures. The process required verification of identity, personal identification numbers, U.S. citizenship, age, and lack of felony conviction or participation in another party's primary. Also, voters were required to correctly answer a "challenge question" based on information in voter registration, such as place or date of birth. Following this authentication process, voters were permitted to cast an electronic vote in the Democratic Primary.

Over the years, there have been many attempts to perfect the voting process. Five main types of voting systems have been used in the United States. These include paper ballots, punch-card machines, optically scanned ballots, mechanical lever machines, and direct-recording electronic (DRE) voting machines (Mercuri). Paper ballots were

the leading medium for voting twenty years ago, but have since been replaced by other methods. Paper ballots are usually completed using a pencil and are manually counted to tabulate the results. For recounting purposes, the original is always available. Punch cards use a metal punch mechanism to record choices and cards are counted by a computer. Similar to paper ballots, each original card is available after the automatic count. In the case of optically scanned ballots, each one has a circle to darken or an arrow to complete by the voter to indicate his or her choice. The ticket is then optically scanned and counted by a machine. Like paper and punch-cards, the original is left as evidence. Mechanical lever machines use switches to indicate each candidate or option, and a machine keeps a running count of the tally. The subtotals remain on the machine, but there is no physical evidence of the results (Mercuri). The most technologically advanced systems in use today are called direct-recording electronic devices or DREs. A DRE is very similar to a personal computer and uses a display to let the user see the voting options. Each option can be activated by the voter, usually via buttons or a touch screen. A keyboard is usually provided to support write-in votes. The choice is then stored locally in the machine's memory. After the election, the results are tabulated and added to the results of other forms of voting. Sometimes the votes are printed in order to provide an alternative hand-counting method. The tally from one machine is added to others in order to create a full count. While there is no physical evidence of the tallies, they are collected and stored on the hard disk of the computer ("Electronic Voting") (Ellingson, 2010)

#### 9. POSSIBLE CHALLENGES FOR E-VOTING SYSTEM IN NIGERIA

#### I. Political Consensus

E-voting systems can be most easily introduced when there is a political consensus about the benefits of the new voting system. Political actors may, however, oppose electronic voting for many reasons, either in principle, because they have real technical concerns, or because they fear the new voting channel is an advantage for their opponents; or because they believe that other parties may receive more credit for modernizing this part of elections; or just because they do not trust in the independence of those implementing the system. Facing such opposition, successful confidence-building may be difficult or impossible (IDEA, 2011). The applicability of this problem to Nigerian electoral reform reflects in the recent proposition for the adoption of electronic voting system for the incoming 2015 general election, however, the opposition political parties have been castigating the replacement of traditional voting method with e-voting which was justified as an alien strategy to maneuvers election results. Therefore, the inability to reach consensus among the various political parties serves as a monumental constraint for the adoption of e-voting system in Nigeria.

#### II. Time and Social Acceptance

Time is a critical factor on various levels. Operationally, e-voting cannot be introduced overnight, but social acceptance of it should realistically be expected to take much longer than pure technical implementation. Commonly it will take several electoral cycles without major technical glitches or political controversy, and with trusted results and long-term civic education campaigns, before citizens and stakeholders are fully confident with electronic voting, based on their own experience and knowledge. Ideally, information and sensitization campaigns on the possible introduction of e-voting systems should start well in advance of technical implementation, with the possibility to shape the technical requirements of the system on the basis of the social context's response and concerns (IDEA, 2011).

#### III. Cyber-Disruption and Lack of Confidence

Important difference between manual and electronic voting systems is this: for the operation to be seriously harmed, a manual system would require a number of people spread in several polling stations to do the harm, while for electronic voting a lot of harm can be done by one single person. Even more problematic is the fact that deliberate or unintended irregularities in the system may be hard to detect. Even if no mistake has been made, only a claim to the contrary may cause a total loss of confidence in the process as well as the results. Although

counterattacks may be mounted, absolute security cannot be guaranteed. Confidence in the voting system is of utmost importance. Even if mistakes occur in manual systems, people are confident that fraud does not occur. This confidence should be maintained when modern technology is put to use, whether in administrating the election or in the voting process (The Norwegian Ministry of Local Government and Regional Development 26 May 2004)

#### **IV. Epileptic Power Supply**

The unstable power supply has been an age-long imbroglio facing Nigerian society. The epileptic power supply has continued to hinder both economic and social development due to the menace of corruption that has rooted in the Nigerian political system. Hence, in adopting the e-voting system in Nigeria, there could be a lot of setbacks whenever there is power outage which may disrupt and discourage general citizens for adopting the e-voting system in Nigeria

#### **10. CONCLUSION AND RECOMMENDATIONS**

This study has carefully designed the e-voting model that best suits the political nomenclature of Nigeria. The paper argued that election rigging had been a historical heritage of Nigerian democratic politic system, consequently resulting into political unrest in the country. To combat this menace of electoral fraud, there is a need to adopt a reliable electoral mechanism that is devoid of further electoral malpractices for the sustenance of emerging Nigerian democracy. The lesson learned from developed and emerging democracies could bring electoral transparency to Nigerian democracy if the suggested model is properly adopted in Nigeria. As for all computer (and certainly Internet) applications, some citizens are better equipped than others. If Internet voting is available from home, it favors those having a connected computer at home. Some people can, for instance, cast their vote at their convenience while others cannot. Some voters are more familiar with these machines than others. Nevertheless, during the last few years, electronic voting mechanisms have been implemented in several countries as an alternative means to the traditional voting procedure. Estonia has permanently introduced remote Internet voting into its electoral system based on the national E-ID as means of authentication and on the secure on-line banking system to ensure the required security. Again, it is on record that the first national elections that allowed Internet voting took place in March 2007 with unprecedented success. Some experiences have also been carried out in Switzerland, The Netherlands and in France to develop reliable Internet voting procedures. All these efforts are geared towards raising the voters' turnout as they are normally enshrined into the legislation as a new form of postal voting. It is in this connection therefore, that it becomes pertinent for Nigeria to adopt the E-voting as a panacea to combat election rigging.

#### ACKNOWLEDGMENT

Special thanks to Envioko Sunday Ibewuchi for his painstaking design of the graphics.

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