

African Research Review: An International Multidisciplinary Journal, Ethiopia

AFRREV Vol. 13 (4), Serial No 56, September, 2019: 12-23

ISSN 1994-9057 (Print) ISSN 2070-0083 (Online)

DOI: <http://dx.doi.org/10.4314/afrev.v13i4.2>

Election Administration in Nigeria: Interrogating Independent National Electoral Commission Transition Efforts from Manual to Electronic Voting

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Abstract

The thrust of this paper is the transitional process from paper ballot to electronic voting in the management of Nigeria elections by the Independent National Electoral Commission (INEC). Managing election in Nigeria has been faced with a hurricane of interests from politicians, electoral commission and also the public. This paper has attempted to take a theoretical discourse on why the transition process in adopting full electronic voting in Nigeria has been node-diving. This paper addressed the problem of credibility by officials of the INEC in declaring election results and will also examine the level of acceptance of the technology or Model initiated by INEC in the conduct of elections. The paper utilized secondary sources of data collection. The Technology innovation theory was used to explain the concept of transition. We further recommend that Paper-trail backup must accompany Electronic Voting Machines (EVM) in the conduct of elections; Government should ensure various institutions responsible for the success of EVM is properly funded; Governments and electoral management bodies in developing nations should improve computer literacy rate among citizens due to

technophobia that exists within them. We further concluded that Nigeria as a country should ensure that movement through its transition process in the quest for credibility and transparency in the conduct of elections should be a creeping approach rather than a forceful one.

Key Words: Independent Electoral Commission, manual voting, electronic voting machine, Technology innovation theory

Introduction

Elections are central to competitive politics of modern political era (Jega, 2015). During transition period, “elections will not only represent a foundation stone but a key generator overtime of further democratic reforms” (Carothers, 2002). Scholars have argued that regular election, political rights and civil liberties being experienced in new democracies like Nigeria are an indication of democratic progress and optimism. In Nigeria, regular conduct of elections is not only “central to democratization”, but also “contributes to the maturation of nascent democratic cultures” (Bratton, 2004). According to Lindberg (2006) “an uninterrupted series of competitive elections imbues society with certain democratic qualities namely: - Participation, competition and legitimacy” (Lindberg, 2006). In Nigeria, elections have been one of the main problems of the democratic process (Omotola, 2010). The conduct of free and fair elections has always been a problem which continues to threaten the very survival of the country and questions the relevant of democracy (Agbu, 2016). Indeed, “the problems associated with elections have direct impact on the performance of democratic institutions” (Wapmuk, 2016). The Nigeria government acknowledges that, “controversies over highly rigged elections have been the forerunner to political violence and instability in Nigeria” (FGN, 2014). Corroborating the assertion above, Jega (the former Chairman of Nigeria’s Election Management Body-Independent National Electoral Commission (INEC) asserts that:

A series of badly conducted elections could create perpetual political instability and easily reverse the gains of democratization ... it can be argued that the consequences of badly conducted elections and poorly managed electoral processes are major contributing factors to military interregnum in Nigeria’s political history (Jega, 2015).

Military interregnum is common mainly in developing countries where “poorly conducted elections have become a major cause of the turmoil that has engulfed many countries” (Jega, 2013). Election violence is induced by a number of factors including irregularities during the electioneering process, imposition of candidates by political parties, the complicity of security agencies and the election management body (Adejumobi, 2007; Ajayi, 2006). Indeed, the collapse of Nigeria’s previous republics is in some ways not unconnected to the problems of election conduct. The challenges of all Election Management Bodies (EMBs) in Nigeria have been linked to the wider problems of Nigeria politics (Momah, 2016; Omotola, 2010). Thus, the quality of elections has been the concern of scholars, practitioners and policy-makers. The idea is to determine or distinguish a credible election from a non-credible one. This is inevitably related in more ways than one to the capacity and capability of the election of the Election Management Body (EMB), which determines considerably not only the credibility of the electoral process but also the sustainability of democracy on the long run (Omotola, 2010). It is observed that, the health of any democracy, no matter its type or status, depends on a credible election. Though there have been various efforts adopted by INEC to ensure credibility in elections which have proven ineffective bearing in mind the importance of electronic devices

which includes the modification of database and voters can only be captured once which has protection against identity theft. This paper will address the problem of credibility by officials of the INEC in declaring election results and will also examine the level of acceptance of the technology or model initiated by INEC in the conduct of elections.

Statement of the Problem

Designing a credible and inclusive electoral regime is a necessary enterprise in all democracies whether transitional or consolidated. Consolidating Nigerian democracy through the conduct of credible elections has remained an albatross (Jega, 2013). The history of Nigeria's democratic experiments demonstrates that elections and electoral politics have generated so much animosity which has in some cases threatened the corporate existence of the country. Nigeria elections have been characterized by lack of credibility in declaring official results of elections leading to the rejection of such results by a sizeable portion the Nigeria voting public.

Elections are always characterized with a lot of irregularities, especially in the developing countries. Politicians use thugs to snatch ballot boxes and sometimes intimidate both aspirants and electorate before and during the election process. The models for e-voting system offers alternative to the earlier manual voting system as practiced in most developing countries if properly implemented. In Nigeria, the e-voting models design will improve the recently used smart card reader in 2015 general election. The models if implemented will therefore ease processes such as registration, verification, vote casting, collation, counting, and presentation of results.

The extent to which election advances depends on the existing electoral system, Level of technology, nature and its acceptance by the stakeholders in the electoral process adopted. The choice of a particular electoral system does not only have a profound effect on the political life of a country but it also disturbs costs and benefits of political actors. It is on these transformation eruptions in election management and how best to manage the process this research is predicated.

Theoretical Orientation

Numerous theories have been propounded by scholars to provide a model in understanding the cyclical activities involved in transforming an existing electoral process, but for the purpose of this work we shall adopt the Technology Innovation Theory.

The Technology Innovation Theory was propounded by an economist Joseph Schumpeter in the twentieth century, he expatiated his theory into three stages: invention, innovation and diffusion. According to Schumpeter, invention is the first demonstration of an idea; innovation is the first commercial application of an invention in the market and diffusion is the spreading of the technology or process throughout the market.

He further explains the diffusion process taking an S-shaped curve, in which the take-up of an innovative process or technology starts slowly with the focus on market positioning, then gathers momentum achieving rapid diffusion, before slowing down as saturation level is reached, with the focus shifting to incremental improvements and cost reductions (Schumpeter, 1934)). He further explains that the S-curves of technological improvement have been well documented in a range of technologies, including disk drives, cars, sailing ships, semiconductors, steam engines and many more (Schilling & Esmundo, 2009).

In an attempt to perfect his theory, Schumpeter further classified Innovation into two types: induced or dependence. The induced innovation approach analyses the impact of changes in the economic environment due to the rate and direction of technical change. This is normally seen in a country or market that lays emphasis on demand e.g. the United States and Russia where labour becomes relatively more expensive compared to capital, then innovation will be directed towards labour-saving technologies (Foxon, 2003). Again, the dependency approach focuses on the level of development in a country. It further explains that the more a technology is adopted, the more likely it is further developed (David, 1985). Dependency approach can be characterized by various transformation processes adopted in developing country like Nigeria. The same process can also hold for an entire system such that the more an institutional rule or framework is applied, the more stable it is likely to become.

The Global Quest for Electronic Voting

Manual systems are sure subjected to voter error and that could potentially lead to fraudulent acts by political parties. In an event of a recount, we set in the “human element” that could be potentially biased. Another problem that is often ignored is the poll workers who have the ability to lose, hide, and destroy paper ballots without detection. The issues with paper ballots have the risks of over-voting, under-voting. The argument for paper ballot over the electronic voting is never in equilibrium; the later still enjoys benefits like: faster results, ease of use, accessibility and efficiency. Voters can’t accidentally make multiple selections because online ballots are configured to reject it. However, printing and mailing costs really add up compared to additional cost of hiring staff to monitor and count your votes (Mebane, 2003).

Electronic voting provides greater convenience for voters as they are able to vote from any internet connected computer and thus will reduce the running cost of voting. In the case of Estonia, casting and vote online takes 6 minutes compared to 44 minutes for paper voting. That would explain why Elections in Canada reportedly is moving towards electronic or e-voting. E-voting certainly would make it easier to participate in the democratic process instead of schlepping to the polls, we could vote from the comfort of our homes simply by clicking a computer mouse or swiping a smart phone, we could also vote while travelling anywhere outside the country with Internet access and astronauts could even vote from space if they happened to be in orbit on election Day (Mebane, 2003).

The Nigeria Experience in the Transition to E-voting

The methods used in registration of voters and conducting elections in Nigeria from 1999 to 2017 range from the use of typewriters to Direct Data Capture Machine (DDCM), Election Voters’ Register (EVR), Smart Card Reader (SCR) and e-collation. The steps taken by Gen. Abdulsalami Abubakar after the death of Gen. Sani Abacha in June, 1998 paved the way for the historic 1999 general election in Nigeria. Registration of voters was done manually. Registrant details were written with pen on a form provided by INEC.

The filled forms were collected and eventually used for the 1999 general election because there was neither any database of voters nor any technology introduced to minimize double registrations; thus the 1999 election registers’ credibility was questionable and was very far from reality. While the Manual Register of Voters used in the 1988 and 1999 elections served its purpose, it has become outdated with the passage of time (Ahmed and Usman, 2015).

The 2003 Elections

The 2003 election witnessed a technological leap with the introduction of Optical Magnetic Recognition (OMR) forms while still retaining the manual approach as back up, INEC incorporated computerization, using the Optical Mark Recognition (OMR) technology. This involves the compilation on the form EC.1A of the names and particulars of all prospective voters (also known as Prospective Registrants) who present themselves physically for registration at the Registration Centres. The information so obtained is then transferred and shaded on computer readable OMR forms, which were later scanned into database on completion of field operation, and processed to produce the Register of Voters. Each OMR form has a unique number, which is assigned to the registered voter who is then issued with a new Temporary Voters Card (TVC) bearing the same number and his/her particulars including his/her thumbprint (Ahmed & Usman, 2015).

The OMR registration continued for 10 days while the consortium of Nigerian, South African and European partners were commissioned by INEC to undertake the work. Automated Finger Prints Identification System (AFIS) was then used to clean the register of double registrations and this gave birth to a single voter's database. The OMR technology was more advanced than the registry model because it made room for quick access, accuracy. Data were updated when necessary and the introduction of the security check made it more competent to rely on (Ahmed and Usman, 2015).

The limitation of OMR technology includes absence of photograph of voters, absence of robust database of voters and inability to develop an electronic register. No technology was used for accreditation of voters, voting, sorting and counting, collation and transmission of results.

The 2007 General Election

The 2007 general election marked the beginning of a new era in the history of Nigeria electoral system. The procurement of the Direct Data Capture Machines (DDCM) for the registration of prospective voters introduced some level of credibility to the system. DDCM was introduced to eliminate double registration, double voting and other electoral malpractices. The DDCM components include: a computer system for capturing and storing voters' information, scanner for taking fingerprints of registrants; camera for taking pictures; back up batteries to forestall power failure, External Hard Disk Drive (EHDD) for data backup and printer for printing Temporary Voters Card (TVC). It was recorded that 13,000 integrated data capture systems were deployed by INEC for the 2006 voters registration exercise, 22,000 Direct Data Capturing (DDC) machines, and 18,000 devices for revalidation of voters register for electorate thereby giving enough room for the registration of over 61 million voters with 40,000 DDCs on the whole (with data and the printer units accessories) at the end of the exercise. Research revealed that the adoption of DDC technology with manual back-up for the revalidation of voters' register made the exercise more transparent, speedy and less cumbersome (Ejikeme, 2015).

Registration of voters was conducted for 81 days due to limited supply of Direct Data Capture Machines (DDCM) to the states. The development of an electronic voters' register was a giant stride in eliminating double registration and double voting in the history of Nigeria electoral system. Very Small Aperture Terminal (V-SAT) was installed in all the 774 INEC local government offices and state headquarter offices to enable the smooth transmission of election

results from various local government areas. Although, these gadgets were not used effectively due to lack of proper training and the issues of non-transparency that trailed 2007 general election. No technology was used for accreditation of voters, voting, sorting, counting and collation of results (Ahmed and Usman, 2015).

The 2011 General Elections

The conduct of the 2011 general elections was domestically and internationally acclaimed to be credible and a great leap forward from the previous experiences since the 4th Republic (Jega, 2012). The search light of INEC under the leadership of Prof. AtahiruJega in 2010 was focused on the registration of voters as it then existed, which was discovered to have fallen far short of the level of credibility required for the conduct of free and fair elections. The new Commission took the view that an entirely new register of voters was the irreducible minimum for free, fair and credible elections (Jega, 2012).

INEC was able to procure and deploy over 132,000 Direct Data Capture Machines (DDCMs) one per 119,973 Polling Units (Pus) and each of the 8,809 Registration Areas (RAs), with a provision for some contingencies. The registration exercise was conducted for 21 days. A more effective AFIS was applied to rid the register of multiple registrants while an EVR was generated which was used for the 2011 general election (Jega, 2012). No technology was used for collation of results. Electronic mail was used to transmit results from local government and state offices to national headquarter in Abuja.

The 2015 General Elections

The 2015 general election marked a new era in the deployment of sophisticated information communication technologies in the history of Nigeria elections, in addition to existing technologies. Improved Automated Fingerprints Identification System (AFIS) was introduced to identify similar fingerprints on the register used for 2011 election. Business rule was also applied in addition to further clean-up the register. For the first time, INEC adopted technology for accreditation of voters with the aid of INEC Voters Identification System (IVAS) popularly called the Smart Card Reader (SCR). Temporary Voters' Cards (TVCs) which were issued to voters for 2011 elections were replaced with the Permanent Voter Cards (PVCs). The PVC replaced the Temporary Voter Card (TVC). According to INEC, quality, security, durability and cost effectiveness were underlying factors in the production of the Permanent Voter Cards by INEC. These cards have many components and specialized features (e.g. base substrate, security printing, personalization, lamination and chip embedding), and it was designed with an average life span of ten (10) years (Agbu, 2016).

With the SCRs, accreditation process was broken down into three: Identification, Verification and Authentication. Identification physical comparison of the face of the card holder with the image displayed on the SCR when the PVC is read; Verification (that the card is original) – being able to read the information on the chip of the PVC presented; Authentication-comparison of the fingerprints stored on the card with what was physically presented and scanned by the reader (Agbu, 2016).

Once PVC has been read and accredited by the SCR, the Voter Identification Number (VIN) is stored in the reader and it does not allow the accreditation of that VIN on that particular reader any longer. The introduction of business rule which only allows voters who have at least two fingerprints captured in the register further reduced the number of voters on the register

drastically. With the rate of technological advancement of INEC, multiple registrations will be completely eradicated or reduced to the barest minimum in the future elections.

In the course of actualizing E-Voting in Nigeria, the Voter Verifiable Paper Audit Trail (VVPAT), the Electronic Voting Machine (EVM) and the Model number EMP2710 were built specifically for Kaduna State Independent Electoral Commission (KAD-SIECOM) by Chinese based EMPTECH; the same company that built handheld PVC scanners for the 2015 Nigerian presidential elections. Dr. Saratu Binta Dikko-Audu, chairman of the Kaduna State Independent Electoral Commission asserted that:

The coming elections have taken a lot of planning and a great team to get to where we are now and the government of the state has been very supportive too. The introduction of these electronic machines will definitely make the elections very secure and trustworthy, a truly democratic process where the people get to truly choose a leader.

The Kaduna State local government elections were earlier slated for the 30th of December 2017 because the State House of Assembly had not passed the Kaduna State Independent Electoral Commission Bill No. 10 of 2012 into law. The bill, which would allow the use of electronic machines for voting and verification in the state local government and council elections, was finally passed on the 6th of February, 2018. The elections were subsequently rescheduled for May 12, 2018. Even though PVC accreditation was done manually, votes were still cast using the EVM than the traditional paper balloting system that used handheld accreditation scanners (Ahmed and Usman, 2015).

The 2019 General Elections

According to Ezeamalu (2019) the accreditation process for the 2019 presidential and the national assembly elections was the subject of intense public debate and this propelled its members to study the accreditation patterns across the country to ensure the integrity of the electoral process. The Nigeria Civil Society Situation Room (NCSSR) ascertained that several states experienced difficulties and delays with the use of the Smart Card Reader (SCR) for accreditation and voting. There were reports from Ogun, Imo, Lagos, Abia, Nasarawa, Kebbi, Kaduna States and the Federal Capital Territory (FCT) on the difficulties with the use of the devices on Election Day. There were also instances where INEC officials resorted to manual accreditation in Imo State and Sokoto State. It will be recalled that the SCR was introduced as an anti-fraud electoral device to enhance the integrity of the voting process; discourage ghost voters and prevent multiple voting as only accredited and verified PVC holders can vote. According to NCSSR report, the presidential candidate of the Young People's Party (YPP), Professor Kingsley Moghalu and Yakubu Dogara, the speaker of the House of Representatives experienced difficulties with the SCR failing to capture their fingerprints during the accreditation process at their polling units in Anambra and Bauchi States, respectively. Despite the malfunction of SCRs across the country, INEC has expressed satisfaction with the overall usage of the device, as expressed via one of its social media platforms: "INEC is pleased to report that the Smart Card Readers proved its functionality and efficiency by successfully authenticating all presidential candidates among millions of other Voters within a short time at their respective polling units across the country" (NCSSR, 2019).

Lessons from Other Countries

Germany

Germany piloted its first electronic voting machines supplied by the Dutch company NEDAP in 1998. The trial was seen as successful and by 2005 general election nearly 2 million German voters were using these NEDAP machines to cast votes. Reactions to the use of these electronic voting machines were 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 (Duncan, 2012).

However, after the 2005 election, two voters brought a case before the German Constitutional Court after raising a complaint with the committee for saddled with the responsibility of scrutinizing the elections. The case was that the use of electronic voting machines was unconstitutional and that it was possible to hack the voting machines, thus the results of the 2005 election could not be trusted. The Court noted that:

under the constitution, elections are required to be public in nature and that all essential steps of an election are subject to the possibility of public scrutiny unless other constitutional interests justify an exception therefore The use of voting machines which electronically record the voters' votes and electronically ascertain the election result only meets the constitutional requirements if the essential steps of the voting and of the ascertainment of the result can be examined reliably and without any specialist knowledge of the subject thus The very wide-reaching effect of possible errors of the voting machines or of deliberate electoral fraud make special precautions necessary in order to safeguard the principle of the public nature of elections.

The court decision did not rule out the use of voting machines in principle, it stated that:

The legislature is not prevented from using electronic voting machines in elections if the possibility of a reliable examination of correctness, which is constitutionally prescribed, is safeguarded. A complementary examination by the voter, by the electoral bodies or the general public is possible for example with electronic voting machines in which the votes are recorded in another way besides electronic storage.

This decision by the German Constitutional Court emphasized the need for transparency in the electoral process without specialist technical knowledge and this ended Germany's recent use of electronic voting (Duncan, 2012). However, no further move to adopt machines that meet the transparency requirements has been made and this has prompted the use of paper ballot to support the EVM system in the conduct of elections

India

Over the last few years in India, the election commission has replaced paper ballots with Electronic Voting Machines (EVMs), this has changed the way people vote in the polls. In the quest for more transparency in the polling process, the poll panel also uses the Voter Verifiable Paper Audit Trail (VVPAT). The machines were first used in the country on experimental basis in the elections of the 16 Assembly constituencies in November, 1998.

In October 2013, the SUPREME COURT OF INDIA CIVIL APPELLATE JURISDICTION (C) NO. 406 OF 2012 directed the election commission to use the Voter-Verified Paper Audit Trail (VVPATs) linked to EVMs in a phased manner and ordered for the poll panel to ensure full implementation of the VVPATS by 2019. The court had delivered that verdict while hearing a petition by BJP leader Subramanian Swamy who had challenged the use of EVMs in their current form. The VVPAT, also known as Verifiable Paper Record (VPR), is essentially a method which allows feedback to be provided to the voters using a ballot less voting system. The machine, which resembles a printer, is linked to the EVM and allows the voter to check his or her desired candidate (SCOICA,2013).

Estonia

Modern-day Estonia has become synonymous with the notion of conceptualizing how citizens interact with their government, making nearly every governmental service available from home or on the go via a mouse click. Since 2005, the country has allowed its citizens to cast their votes in pan-national elections via a secure online portal system. Estonia is the only country in the world that relies on Internet voting as a significant way for legally-binding national elections and this has made the security of Estonia's system a point of interest to technologists and voters all over the world.

To vote in Estonia, one simply visits the national election website and downloads and installs the voting application. Then you insert your national identity card into your computer's card reader, fill in your digital ballot, confirm your choices and digitally sign and submit your e-ballot. You can do all these from the comfort of your own home in seven days leading up to Election Day. Citizens can vote as many times as they like up to Election Day, with only the final vote counting. Those who do not have access to a computer or who prefer old fashioned paper ballots can still vote by paper as an option rather than a mandate (Salem 2007).

From the activities of countries listed above we have discovered that the use of electronic voting has failed in some Nations due to security concerns and succeeded in sections of other countries like India. Looking at these pitfalls in larger countries it can be noted that its success in Estonia was not only because the country was small but they adopted both the technological model of conducting election and the paper backup system for transparency in the conduct of their elections

How Nigeria should Tread in the Light of Experience

Nigeria as a country is a developing nation and we have various negating factors which have stampeded the proper use of modern technology in our elections. In light of experiences of other countries like Germany, we should consider having a more transparent and verifiable means of collating election results and this should not exclude the input of non-experts as a verifiable means in checking election results.

The findings from India elections conducted have also given Nigeria the insight to adopt the VVPAT (also known as Verifiable Paper Record (VPR) to serve as a backup for transparency in the conduct of their elections. Finally from the Estonia success in full actualization of i-voting Nigeria should develop that infrastructural base to enable them meet the demands in adopting this type of technology. We should also test run e-voting in other smaller channels like the Kaduna local government Election in 2018 to get acquainted with the process, Also, we should ensure we adopt the verifiable paper record (VPR) to support the EVM to ensure

transparency in the conduct of election as adopted by India and Germany to ensure acceptance of results by voters.

Conclusion

As the Federal Government moves towards a digital age in which paper trails of evidence will no longer be maintained, it will become feasible for the electoral system to make use of these technologies as well. This would mean that organizations would need to enhance their procedures substantially in registering voters, perhaps even requiring some form of biometric identifications to be used before a key token was issued.

One more thing to consider is that the success of electronic voting rests directly in the ability of the Electronic Voting Machines to function in the way the voting district needs and prefers. Although some of the greatest features of Electronic Voting Machines will come with developments in software and mechanical functionality, especially those that would ensure accuracy, privacy and verifiability which is now being worked on by the Electoral commission in Germany.

And lastly, considering the loopholes encountered by India and Germany in their quest to adopt full Electronic Voting. Nigeria as a country should ensure that movement through this transaction process in their quest for credibility and transparency in the conduct of elections should be a creeping approach rather than a forceful one.

Recommendations

After considering various challenges faced by other countries in their attempt to attain transparency and credibility in the conduct of their election and also numerous problems faced by Nigeria, we hereby recommend as follows:

1. That government should create pilot zones to test various e-voting channels to ensure proper voting model adopted is accepted by the electorates
2. INEC should also adopt the use of paper-trail backup in the conduct of elections to ensure proper biometric registration, credibility in the voting process and result declaration.
3. Government on its path should equip electoral management bodies to enable them improve computer literacy rate among citizens.
4. The security standard and integrity of the electoral system should be maintained by various electoral bodies to ensure trust and confidence in the system by the voters.
5. Further Research should be conducted towards the implementation an e-voting model which will be accepted by the voters.

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