

THE NEED TO COPY AMERICAN E - VOTING SYSTEM TO ADVANCE NIGERIAN ELECTORAL PROCESS

Oluoha, Jacinta Ngozi

Department of Political Science
Tansian University, Umunya, Anambra State

ojeccyng@yahoo.com

DOI: 10.13140/RG.2.2.36594.22726

Abstract

The present discourse purports to examine, first; the American e-Voting system and secondly; how this system will uplift Nigerian electoral process. This study intends to save the situation of Nigerian electoral flops, inconclusive elections emanating from electoral tensions, election infractions and irregularities, if Nigeria goes the full hug of e-Voting which brings about transparency with free and fair elections. The study adopts the method of 'what is' and 'what ought to be'. The study discovered that 'what is', the manual/paper balloting practiced by Nigeria has done more harm than good to Nigerians and argues that Nigeria needs to urgently emulate 'what ought to be', the American e-Voting system for the sole aim of having a better political system. The study therefore, attempts using the qualitative survey method to unveil/unravel the relevance of e-Voting in Nigerian electoral process. It is no gain belabouring this obvious need that will allow the participation of the physically challenged, the visually impaired and Nigerian citizens in diaspora to exercise their franchise and the time consciousness of casting and counting of votes, collation and announcement of election results.

Key words: Copy/emulate, American e-Voting system, Nigerian electoral process, advancement.

Introduction

Technology is our essential condition for advanced and industrial civilization as argued by historians of science; they also stated that the rate of technological change has developed its own momentum in recent centuries, thus leading to breakthrough that resulted to the transformation of both cultural and political processes. Electronic voting which is also known as e-voting, is an electoral system that allows a voter to record his or her secure and secret ballot electronically (Rouse, 2011). It is one of the breakthrough in technological advancement and

unarguably a pre-requisite for developing nations like Nigeria to catch up with the developed country like United States of America. And so, for a better political system, this study looks at the need for e-voting system and argues that Nigeria needs to urgently emulate it. E-voting systems are largely attempts to replace the previous voting systems which supposedly were incapable of resolving the many problems surrounding election. Simply put, e-voting systems emerged as an effort to tackle the various electoral fraudulence and mal-operations. The advocates of e-voting system argue that the earlier system (ballot paper) could be criticized for the following: Missing names of some registered voters, intimidation and disfranchisement of voters, multiple and under- aged voting, snatching or destruction of ballot boxes, miscomputation and falsification of results (Ogbandu, 2011). It is evident that Nigeria has had many electoral flops and disadvantages emanated from the use of manual counting. In fact, manual counting brings up more sentiments in the electoral system. It is obvious that those who handle the ballots treat them inconsistently. Nigerians, especially the visually impaired, physically challenged and those in diaspora are denied the opportunity to elect their leaders. More disturbing is that much insecurity has been found in manual voting and this jeopardizes the lives of electoral personnel. In manual voting, very long queues are found at the polling stations, one can stay in the polling station for hours without casting the vote. In many cases voters go hungry and because of this, violence emerges, for it is said that, 'a hungry man is an angry man', and these violence sometimes lead to the destruction of persons and properties. Equally, there is time wasting in the counting of votes, collation and announcement of election results.

The study is to lay down the need to copy American e - voting system to advance Nigerian electoral process. A lot of importance could be ascribed to electronic voting system. This includes; cost reduction, accessibility, transparency and immediate feedback. Advocates of electronic voting systems hold the view that such systems provide accessibility for persons with disabilities. E-voting systems can detect votes that paper-based machines would have missed (Kasuba, 2010).

Literature Review

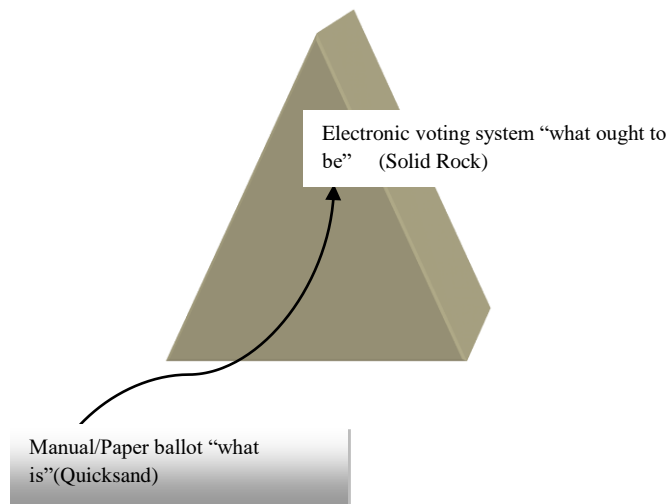
According to Microsoft Encarta 2009, Electronic voting is a voting system that allows votes to be entered and recorded in an electronic form. These systems are also referred to as e-voting or direct-recording electronic systems (DREs). The voter uses a direct entry device to register vote selections, and the entries are transferred (via circuitry) to electronic recording media, such as a computer hard

drive or a memory card. The direct entry device may be electronic, as with a touch-screen, or electro mechanical, such as a panel of push buttons (Redmond, 2009). E-voting includes punched cards, optical scan and specialized voting kiosks. According to D. Zissis, e-voting also involves the transmission of ballots and votes via telephones, private computer networks, or the internet. By this is meant that the voter does the voting without the supervision of any representative of governmental authorities. This is also known as i-voting, etc (Zissis, D. and Lekkas, D., 2011). Mary Bellis in *'The History of Voting Machines'*, observes that, "e-voting systems for electorates have been in use since the 1960s with punched card systems" (Bellis, M., 2000). Roy Saltman following Bellis notes that the first widespread use of these systems was in the U.S.A., where seven countries switched to this method for the 1964 presidential election (Saltman, 1972). There are three types of e-voting in U.S.A., which can be identified as Optical Scan, Direct Recording Electronic (DRE) and Internet voting (i-voting). The scan has a touch screen added for the voter's use. This system will print a hardcopy of the ballot once the voter is done. This ballot needs to be passed out to the election officer so it can be counted. The DRE system has a touch screen with digital swipe card buttons which will be used in order to make the choices. All votes are stored in a physical memory device which is sent to a special voting station for their results. Lastly, Internet voting (i-voting) is the type of vote that is done in remote locations. This type of voting service is not supervised by governmental representatives. The most common devices to use for this type of vote are; personal computer (desktop, laptop, palmtop), mobile phones (ipad, java, android etc), and television via internet. Nowadays, all states of the US use electronic voting because it provides less cost, improve accessibility for voters with disabilities, it gives faster results, greater accuracy and low risk of mechanical and human error. (VVSG, 2005). Electronic voting systems can detect votes that paper-based machines would have missed (Kasuba, 2010). Electronic voting system removed the need for much paper work, thus reducing cost significantly. This system also combats the wastage of papers. Advocates of electronic voting systems hold the view that such systems provide accessibility for persons with disabilities. This is possible because electronic voting systems can use headphones, sip and puff, foot pedals, joy sticks and other adaptive technology to provide the necessary accessibility. For them, electronic voting is not like punched card and optical scan machines that are not fully accessible for the blind or virtually (PFAW, 2004). Again, the advocates of electronic voting systems, arguing from the point of view cryptography, hold that the systems (e-voting) are transparent. For them, it allows voters and election observers to verify that votes have been recorded, tailed and declared correctly, in

a manner independent from the hardware and software running the election. These voting systems can provide immediate feedback to the voter detecting such possible problems as under-voting and over-voting, which may result in a spoiled ballot.

Conceptual Framework

In this study, the researcher used the metaphor of “quicksand” and “solid rock” to make a conceptual distinction in organizing devices for making a national policy on erasing the manual/paper balloting system to transit to the electronic voting system in the Nigerian electoral system using America as a model/standard.



Theoretical Framework

This study will make use of Teleological theory. The Greek word ‘telos’ means goal, end, or purpose, and teleology is the study of goals, ends and purposes. Johansen, T.K (2005) posits that, “Teleology pervades Aristotle’s philosophy like no other notion”. Aristotle begins the political thought in regard by invoking the concept of nature. According to Aristotle, Teleological theory defines right action in terms of the good or good life for human being’. Teleological theory is a normative (moral) theory that maintains that the rightness of an action is one which achieves the goal of maximizing enduimonia (happiness). This is Aristotle’s political theory of ‘description’ (what is) and normative (what ought to be). In its application, this theory will be instrumental to adducing that the paper or manual balloting is “what is” and the electronic balloting is “what ought to be”. That is the

goal this study intends to achieve for the maximum happiness which is free and fair election and so teleological theory is useful framework for achieving the impulse of this study.

Methodology

Research Design

The researcher adopted the descriptive survey and ex-post facto design, which according to Nworgu (2006) is a study that seeks to establish cause effect relationship but differs in that the researcher usually has no control over the variables of interest and therefore cannot influence them. In fact, it was to ensure the study is devoid of manipulation of the variables in concern. In this research our priority is to unravel the different views of the populace of the study on 'the need for electronic voting system on the Nigeria electoral system: America as a model' in Abuja.

Area of the Study, Population, Sample and Instrument

The research covers Abuja, the Nigeria federal capital. It was particularly extended to the National Assembly, the Independent National Electoral Commission, American Embassy, National Secretariat, Love FM Radio Station, Pope John Paul II Social Centre and Our Lady Queen of Nigeria Pro-Cathedral. The area covered is a densely populated area with people from different ethnic groups, professions, religion and cultures, of Nigeria, including American citizens, contributing to its complexity. This non-homogeneity abounds for different views on the need for e-voting system, which is suitable for the research. The population of the study comprises enfranchised male and female (eligible voters) citizens of Nigeria and America. Simple random and stratified random sampling techniques were used to select one hundred (100) of eligible voters within the age range of eighteen (18) to sixty-five (65) years and above. Eighty (80) eligible voters were Nigerian citizens while twenty (20) were American citizens. Two reliable and valid instruments were utilized for the study. They are; (a) The Questionnaire which was patterned in a three (3) point rating scale of: Yes, No, and Undecided. And (b) The Interview conducted. The instruments were suitable to be relied on because it was secure and confidential.

Data Presentation and Analysis

This study is primarily concerned with the demographic and socio-psychological factors as correlates the Nigerian citizens in Abuja who are legible voters. The research provides answers to the questionnaires and the results are presented in line with the findings. The corresponding responses for the independent variables (demographic questions) and the dependent variables (psychographic questions) were ascertained using the simple percentage (%) method of analysis. The illustrations are shown below. 100 questionnaires were distributed and collected.

Section A:

The demographic responses and percentages are as follows:

1. What is your gender?

Gender	Responses	Percentage (%)
Male	55	55
Female	45	45
Total	100	100%

Decision:

The table shows that 55 respondents are males and 45 females. The 55 respondents represent 55% of the population of male and 45 respondent represent 45% of the population of women. So the sampling shows that there are greater numbers of men who are enfranchised. The numbers of women who are eligible voters are lesser than that of men.

2. What is your age?

Age	Responses	Percentage (%)
18-29	27	27
30-49	50	50
50-64	18	18
65-above	5	5
Total	100	100%

Decision:

The table above shows that 27 respondents were at the age range of 18-29 years, 50 respondents at 30-49 years, 18 respondents at 50-64 years and 5 respondents at 65 years and above. The 27 respondents represent 27% of the population, 50

respondents represent 50% of the population, 18 respondents represent 18% of the population and 5 respondents represent 5% of the population. So, there are more respondents for the age range of 30-49 which is 50% of the population and lesser for that of 65 years and above which is 5% of the population.

3. What is your marital status?

Marital Status	Responses	Percentage (%)
Married	72	72
Single	28	28
Total	100	100%

Decision:

The table interpreted above shows that 72 respondents were married, 28 were single and that 72 respondent represent 72% of the population while 28 represent 28% of the population. Therefore, the population has more of married eligible voters which is 72% of the population and less of single which is 28% of the population.

4. What is the highest level of education you have completed?

Qualification	Responses	Percentage (%)
High School Graduate	30	30
Tech/Vocational Training	2	2
Some High School	12	12
College	2	2
College Graduate	18	18
Post Graduate Degree	32	32
Some Post Graduate	4	4
Total	100	100%

Decision:

In the table, respondents that are high school graduates are 30, those with technical vocational training are 2, some high school are 12, those in college are 2, college graduates are 18, post graduate degree 32 and some post graduate 4. Those that are 30 represent 30% of the population, 2 respondents represent 2% of the population, 12 respondents represent 12%, 18 respondents represent 18%, 32 respondents represent 32% and 4 respondents represent 4% of the population. So, the greater

number of the population is 32 which is post graduate degree and the lesser number is 2 which is those of college and technical/vocational training.

5. What is your religious preference?

Religion	Responses	Percentage (%)
Jewish	1	1
Protestant	24	24
Christian Pentecostal	31	31
Roman Catholic	32	32
Muslim	11	11
Orthodox	1	1
Something else	0	0
Total	100	100%

Decision:

The table above shows that one respondent which is 1% of the population is Jewish, 24 respondent representing 24% of the respondent are Protestants, 31 Christian Pentecostals representing 31% of the population, 32 respondents which is 32% of the population are Roman Catholic, 11 respondents represent 11% of the populace which are Muslims and one respondent represent 1% Orthodox. Therefore, the greater number of the enfranchised is 32 who are Roman Catholics, while the lesser number is one which is the Jewish and Orthodox.

6. Ethnicity: I want to be sure that I have spoken to a broad mix of people in my area of jurisdiction. Are you, yourself of

Ethnicity	Responses	Percentage (%)
Yoruba	28	28
Hausa	15	15
Igbo	31	31
Fulani	1	1
Niger Delta Origin	5	5
Others (America)	20	20
Total	100	100%

Decision:

The table above show that 28 respondents were Yorubas, 15 respondents were Hausas, 31 respondents were Igbos, one respondent is Fulanis, 5 were of Niger Delta Origin and 20 were Americans. 28 respondents represent 28% of the populace, 15 represent 15%, 31 represent 31%, one respondent represent 1%, 5 represent 5% and 20 represent 20% of the population. Therefore, the greater number of the respondent is 31 which are Igbo while the lesser number is one which is Fulani.

SECTION B

Psychographic Responses

7. Is Nigeria underdeveloped, technologically backward, and unindustrialized?

Question	Response	Percentage %
Yes	75	75
No	20	20
Undecided	5	5
Total	100	100%

If %age = response/population x 100, and Yes =75 is greatest.

Where response = 75, population = 100,

Therefore %age = 75/100 x 100 = 75%

Decision:

From the above analysis, 75 respondents say yes, 20 of them say no and 5 remain undecided. 75 respondents represent 75% of the population, 20 represent 20% and 5 represent 5%. So, the greater numbers of the population which is 75% says that Nigeria is underdeveloped, technologically backward and unindustrialized. The lesser number of 5% of the population are undecided.

8. Has the paper balloting system practised in Nigerian elections done more harm than good?

Question	Response	Percentage
Yes	65	65
No	30	30
Undecided	5	5
Total	100	100%

Decision:

From the above analysis, 65 respondents say yes representing the 65% of the population, 30 respondents say no representing 30% of the population and 5 representing 5% are undecided. So, the greater number, 65% of the population say that paper balloting system practised in Nigerian elections has done more harm than good. The lesser number of 5% of the population are undecided.

9. Do you think that contestants at Nigerian elections are subjected to spend huge amount of money in terms of finance during elections?

Question	Response	Percentage
Yes	92	92
No	4	4
Undecided	4	4
Total	100	100%

Decision:

From the above analysis, 92 respondents representing 92% of the population say yes, 4 respondents representing 4% say no and another 4 respondents representing 4% are undecided. So, the greater number of the population that is 92% thinks that contestants at Nigerian elections are subjected to spend huge amount of money in terms of finance during elections. The lesser number of 4% of the population says no and undecided.

10. Do you find it easy preparing yourself for elections in Nigeria and transporting yourself to vote at your polling stations?

Question	Response	Percentage
Yes	34	34
No	64	64
Undecided	2	2
Total	100	100%

Decision:

From the above analysis, 34 respondents representing 34% of the population say yes, 64 respondents representing 64% of the population say no and 2 representing 2% are undecided. Therefore, 64% which is the greater number of the population do not find it easy preparing themselves for elections in Nigeria and transporting themselves to vote at their polling stations. The lower number, 2% of the population remain undecided.

11. Are the recent experiences at polling stations pleasing?

Question	Response	Percentage
Yes	19	19
No	78	78
Undecided	3	3
Total	100	100%

Decision:

From the tabulated analysis, 19 respondents representing 19% of the population say yes, 78 respondents representing 78% of the population say no, and 3 representing 3% are undecided. So, the greater number of the population which is 78% says that the recent experiences at polling stations are not pleasing. The lesser number of 3% of the population are undecided.

12. Has the time of waiting after votes has been cast, to hear the result in Nigeria serene?

Question	Response	Percentage
Yes	13	13
No	77	77
Undecided	10	10
Total	100	100%

Decision:

From the tabulated analysis, 13 respondents representing 13% of the population say yes, 77 respondents representing 77% of the population say no, and 10 representing 10% are undecided. So, the greater number of the population which is 77% says that the time of waiting after votes has been cast, to hear the result in Nigeria in not serene. The lower number of 10% is undecided.

13. Do you think that the electronic voting system practiced in America will be favourable to Nigeria?

Question	Response	Percentage
Yes	70	70
No	16	16
Undecided	14	14
Total	100	100%

Decision:

From the tabulated analysis, 70 respondents representing 70% of the population say yes, 16 respondents representing 16% of the population say no, and 14 representing 14% are undecided. So, the greater number of the population which is 70% thinks that the electronic voting system practiced in America will be favourable to Nigeria. The lesser number of 14% of the population are undecided.

14. Will electronic voting system, project the positive image of Nigeria more in the international arena?

Question	Response	Percentage (%)
Yes	81	81
No	11	11
Undecided	8	8
Total	100	100%

Decision:

From the tabulated analysis, 81 respondents representing 81% of the population say yes, 11 respondents representing 11% of the population say no, and 8 representing 8% are undecided. So, the greater number of the population which is 81% thinks that the electronic voting system will project the positive image of Nigeria more in the international arena. The lower number of 8% of the population is undecided.

15. Do you feel or think that online voting system will make voting accessible to Nigerians in diaspora and the disabled ones cast their votes comfortably?

Question	Response	Percentage
Yes	86	86
No	12	12
Undecided	2	2
Total	100	100%

Decision:

From the above analysis, 86 respondents representing 86% of the population say yes, 12 respondents representing 12% of the population say no, and 2 representing 2% are undecided. So, the greater number of the population which is 86% feels or thinks that online voting system will make voting accessible to Nigerians in diaspora and the disabled ones cast their votes comfortably. The lesser number of 2% of the population are undecided.

16. Will the e-voting system attract youths to cast their votes during elections?

Question	Response	Percentage
Yes	86	86
No	9	9
Undecided	5	5
Total	100	100%

Decision:

From the analysis, 86 respondents representing 86% of the population say yes, 9 respondents representing 9% of the population say no, and 5 representing 5% are undecided. So, the greater number of the population which is 86% thinks that the e-voting system will attract youths to cast their votes during elections. The lower number of 5% of the population is undecided.

17. Different telecommunication companies in Nigeria (GLO, MTN, ETISALAT, AIRTEL etc) have multilateral data of the populace. Can the electronic voting system help Nigeria to have a central/unified/unilateral data of it's population?

Question	Response	Percentage
Yes	66	66
No	26	26
Undecided	8	8
Total	100	100%

Decision:

From the tabulated analysis, 66 respondents representing 66% of the population say yes, 26 respondents representing 26% of the population say no, and 8 representing 8% are undecided. So, the greater number of the population which is 66% say that the different telecommunication companies in Nigeria (GLO, MTN, ETISALAT, AIRTEL etc) have multilateral data of the populace, and the electronic

voting system can help Nigeria to have a central/unified/unilateral data of its population. The lesser population of 8% are undecided.

18. Will e-voting reduce the cost incurred in transportation during electioneering period in Nigeria?

Question	Response	Percentage
Yes	88	88
No	11	11
Undecided	1	1
Total	100	100%

Decision:

From the tabulated analysis, 88 respondents representing 88% of the population say yes, 11 respondents representing 11% of the population say no, and 1 representing 1% are undecided. So, the greater number of the population which is 88% think that e-voting will reduce the cost incurred in transportation during electioneering period in Nigeria. The lesser number of 1 is undecided.

19. Electronic voting system, will it make the collation and announcement of result fast?

Question	Response	Percentage
Yes	93	93
No	3	3
Undecided	4	4
Total	100	100%

Decision:

From the tabulated analysis, 93 respondents representing 93% of the population say yes, 3 respondents representing 3% of the population say no, and 4

representing 4% are undecided. So, the greater number of the population which is 93% thinks that electronic voting system will make the collation and announcement of result fast. The lesser number of 3 say no.

20. Electronic voting has to do with information communication technology (ICT), can this e-voting help move Nigeria technologically forward?

Question	Response	Percentage
Yes	92	92
No	5	5
Undecided	3	3
Total	100	100%

Decision:

From the tabulated analysis, 92 respondents representing 92% of the population say yes, 5 respondents representing 5% of the population say no, and 3 representing 3% are undecided. So, the greater number of the population which is 92% think that electronic voting has to do with information communication technology (ICT), and that this e-voting will help move Nigeria technologically forward. The lower population of 3% are undecided.

Discussion of Findings and Conclusion

This study discloses that the main cause of abnormalities in the Nigerian electoral system was that Nigeria is underdeveloped, technologically backward, unindustrialized and the elections are conducted manually. An interview conducted by the researcher at the National Assembly, the assistant director of National Assembly has the following response; "If you want to make a comparison, Nigeria certainly is unindustrialized, it is still economically backward, technology is still very low in this part of the world" (Okoh, 2016).

Quite glaring in this study is the revelation that America's e-voting system has been very successful. An officer of the American Embassy who is an American citizen shared the following with the researcher during his interview at the Embassy; "We have e-voting in the States, having to say this of Nigeria precisely.

... I'm not sure what will be the best system but if you certainly look into the future the government and INEC can do it. The basic preparation, education and organization are the main things" (Enidablo, 2016). A respondent to the researcher's interview said, "America is having a transition process. We have seen the transparency that actually punctuates their electoral process. So, if Nigeria actually has to grow, the world can also look on to us as an example for countries practicing democracy to copy and we will benefit from the many opportunities that comes with it. (Ezugwu, 2016). Another respondent suggests at the National Assembly, "It might not be the exact type the American government practices because we may not have the resources, however we can adopt the mid version of that one that may not be too expensive. I think that can give us a much better result than what we currently have" (Okoh 2016).

An interview response got from INEC personnel buttresses this conclusion, when the researcher asked if a third world country like Nigeria needs e-voting. He said, "I'm of the opinion that third world countries and even developed countries needs e-voting to enhance their electoral process. This is because the use of electronic devises and technology has gone a long way to boost the electoral process in terms of administration, voting, accreditation, tabulating of result and even transmission and collation of results" (Iboh, 2016). In the same vein, the deputy director of National Assembly related; "The world is going technology now, so, I think the emphasis should be on how we can transit or migrate from paper to real technology. Paper hasn't given us the best of the result. I think we should try something else (Okoh, 2016).

These revelations make empirical the nursing needs of Nigerians to migrate from paper to electronic voting system. If we improve on our political process through e-voting, people will then understand the purpose of governance as geared towards helping the economy grow, improving the life of the people, transforming the society and the general wellbeing of every citizen in the country and most especially projecting the image of Nigeria in the committee of nations/the international arena.

Implication of the Findings

The researcher advised that the three arms of government, the executives, legislature and the judiciary should be involved in the adoption of e-voting system. The **legislatures**, the house of representative, and the senate should present a bill passing the electronic voting system into law, the executive should endorse it and it is so ratified that it becomes something derivable from the electoral law that people has to resort to the electronic voting system for greater reliability and for confidence in the entire electoral process. If that is passed into law, it becomes something that doesn't have an alternative and everybody will actually adopt that system and even those whom we say do not have education or not computer literate will have to know that they need to upgrade their education or and be trained so that they will be able to use the electronic facilities that are now part of the electoral process deriving the validity from the law. The judiciary should stand on its implementation and sanction those that derail from it.

A response of the interview made by the researcher relates;

If electronic voting system is passed into law, it becomes something that doesn't have an alternative. In the past, when the GSM came into the country, many people didn't know how to operate even a typewriter keyboard but today most people, even those we consider illiterate or minimally educated know how to use a telephone/cell phone because their life depends on that, their business depends on that, even children in nursery school, even artisans, people that belong to the lower **echelon** of the society, everybody use a cell phone and it minimises the economic challenges we use to face, travelling and all that,,,, If people have confidence in an election, there will be little need for them to protest after the election and even a lot of money people spend on unnecessary litigation after election will minimise because they could see transparency in the whole electoral process which can be guaranteed from the use of electronic voting system (Ezugwu, 2016).

Recommendations

Policy processes in which the policy design evolves through effective participation of stakeholders as against top-down approach and amendment of the 1999 constitution involving election process is imperative. This point underscores the need for an in-depth qualitative study to understand election participation and policy process involving e-voting technology in Nigeria.

To achieve the goal of the research work, INEC, National Assembly and other relevant government agencies in Nigeria should invest more on research and development to grasp the in-depth of the challenges to ensure development and sustainability of the new voting system.

The essence is to enable strategic planning to build confidence in the people and lay good foundation for successful adoption (Erubani, 2012). The researcher relates the response of the deputy director ICT department in INEC as follows;

...However, we still intend to go the full hug with e-voting when the necessary legislations are made available so that we keep raising the bar of the outcome of the electoral process thereby ensuring that our leaders are accountable to the people that voted them in (Iboh, 2016).

There is the need to practically test the e-voting technology on non-public elections platform before the full-scale country wide adoption. A renowned sagacious Political Scientist recommended that, "the PVC should be reconfigured to work like bank ATM card and that the electoral Card Reader should also be configured to work like ATM Machines and even POS so that voting now becomes very seamless and stress free". (Asogwa S. N., 2018).

As part of long-term strategy, effective networking of government offices for both internal and external transactions otherwise known as e-administration and e-government respectively is a springboard to enhance sustainable e-voting adoption. Therefore, government ministries and agencies at all levels including schools and institutions of higher learning should ensure effective incremental digitalization of its service delivery to enhance technology savvy among citizens. In addition, on-the-job computer training of personnel should be encouraged at all levels cadre in both private and public sectors.

References

- Ahmed, S. et al, (2015). "Issues and Challenges of Transition to e-Voting Technology in Nigeria", *Public Policy Administration Research* vol. 5, No 4
- Alabi, M.O. (2009). Electoral reforms and democratic consolidation in Nigeria: *The Electoral Act 2006*. *CEU Political Science Journal* 4 (2), 278-304. Retrieved 19 January, from <http://www.ceeol.com/asp/getdocument.aspx?logid=5&id=73488cf8239a482ca2161860%09bf0a400>
- Aristotle, (2000) 'Metaphysics' 1050a 9-17 Stanford Encyclopedia of Philosophy, (2015). Retrieved 22 May, 2016, from <http://www.plato.stanford.edu/entries/Aristotle.-metaphysics.com>
- Baiyewn, L. (2012), INEC: Between electoral officers' franchise and credibility, *Punch*
Retrieved 19 January, 2016 from <http://www.punching.com/politics/inec.between-electoral-officers-franchise-and-credibility/>
- Bellis, M. (2000), "The History of Voting Machines" Retrieved March 18 from <http://www.inventors.about.com>
- Berlin, I. (1953). *The Hedgehog and the Fox*. London: Weidenfeld& Nicolson
- Elise, A (2004), *Blind Voters Rip E-Machines*. San Jose Mercury News: Retrieved 11 June, 2016 from <http://www.kimalex.blogspot.com/.../blind-voters-rip.com>
- Ellen, T. (2005). *Myth Breakers; Facts about Electronic Election*, Retrieved 21 March, 2016, from <http://www.votersunite.org/mb2.pdf>.
- Erubani, M. (2012). The guardian imperative of electronic voting in 2015 elections. *Sunday Magazine*, Retrieved March 18 from <http://www.ngrguardiannews.com/index.php?option=com-content&view=article&catid=104:sunday-magazine&itemid=567>
- Fischer, E.A. (2003). Election Reform and Electronic Voting Systems (DREs): *Analysis of Security Issues*, (2003). Retrieved March 18 from <http://www.epic.org/.../voting/crs.com>

- Johansen, T.K (2005). *Aristotle on Teleology*. Oxford: Oxford University Press.
- Kasuba, M. (2010) "Its official Let the Recounts Begin", *National journals*. Retrieved 19 January, 2016 from <http://www.m.startribune.com/...let-recountbegin/....com>
- Nworgu, B. (2006) *Basic Research in Educational Issues and Methodology*, Ibadan: Wisdom Publishers Ltd.
- Ogbaudu, F. (2011). 2011 General election review: Experience sharing, lessons learnt and the way forward – The Nigeria police perspective. *Paper presented at the review of elections security during the 2011 general elections in Nigeria justice sector reform monograph series*.
- PFAW (2004). "Protecting the Integrity and Accessibility of Voting in 2004 and Beyond". *People for the American way*. Retrieved 19 January, 2016 from <http://www.votingmachines.procon.org>.
- Redmond, W.A. (2009). "Electronic Voting" *Microsoft Encarta*. Retrieved 19 January, 2016 from <http://www.encarta.com>
- Rouse, M. (2011). "What is e-voting (electronic voting)? Retrieved 19 January, 2016, <http://www.whatistechtarget.com/.../e-voting>
- Saltman, R. (1972), "Effective Use of Computing Technology in Vote-tallying" in NIST. Retrieved, March, 21, 2016, from http://www.csrc.nist.gov/.../NBS_SP_500-300.pdf.
- Smyth, J. C. (2003). "Voting Machine Controversy". Retrieved 21 March, 2016, <http://www.commondream.com>
- Stanford Encyclopedia of Philosophy, (2015). Retrieved 22, May, 2016, from <http://www.plato.stanford.edu/entries/Aristotle.com>
- Swanson, R. A. (2013). *Theory Building in Applied Discipline*. San Francisco, CA: Berrett-Koehler Publishers.
- Thompson, K. (1984) "Reflection on Trusting Trust". Retrieved 22, March, 2016, from <http://www.ece.cmu.edu/.../p761>.
- VVSG, (2005). "Voluntary Voting System Guidelines" :U.S. Election Assistance Commission. Retrieved 22, March, 2016, from http://www.eac.gov/.../voluntary_voting_system.org
- Zissis, D. and Lekkas, D. (2011). "Securing e-Government and e-Voting with an open cloud Computing architecture" in *Government Information Quarterly*

Journal of African Studies and Sustainable Development
ISSN: 2630-7065 (Print) 2630-7073 (e). Vol. 4 No. 3. 2021
Association for the Promotion of African Studies

Vol. 28 No, 2, pp, 239-251, Retrieved 22, March, 2016, from
<http://www.citeseerx.ist.psu.edu>