

SMART TECHNOLOGY AS A VERITABLE TOOL FOR CREDIBLE ELECTIONS: A NIGERIAN STUDY

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Abstract: An election is a key component of democracy. Since Nigeria gained independence in 1960, the conduct of elections in the political history of the country has been marred by fraudulent practices, corruption, and violence. Despite a series of electoral reforms, the country has not succeeded in reducing incidences of voter intimidation, ballot box snatching and stuffing, multiple voting, falsification of results and other associated electoral malpractices. In fact, the country has failed to conceive of, implement, a free, fair, transparent, and credible electoral process. Admittedly, part of the efforts made toward the conduct of the 2015 general elections is the introduction and use of a smart card reader (SCR) in the quest to ensure free, fair, and credible elections. Building on the gains of the smart card reader in the 2015 elections, INEC introduced an advanced level of smart technology in elections conducted outside the election circle in 2021, known as the Bimodal Voter Accreditation System (BVAS). It is against this background that this paper investigated the impact of smart technology on the electoral process. The study adopted a quantitative research method because data were gathered from primary sources. David Easton's system theory was used for the analysis. The study found amongst others that the introduction of smart technologies—the smart card reader and the bimodal voter accreditation system—reduced the incidence of electoral fraud and enhanced free, fair, and credible elections in Nigeria. The study recommends adequate facilities, including a legal framework, for the full adoption and operation of smart technology across all facets of the electoral process, including voting in Nigeria.

Keywords: Democracy, Election, Smart technology, and System Theory

INTRODUCTION

In Nigerian political history, elections were first organized and conducted by the colonial government in response to pressure from nationalists who were agitating for greater participation in the colonial government. Moru (2004) noted that Nigerians were given the first opportunity in 1922 to occupy certain political offices. He maintained that the franchise was restricted and representation limited. Despite this, the nationalists saw it as an achievement in the struggle for the enthronement of a democratic order as a prerequisite for greater participation of the people in the process of governance.

Following the above argument, several elections were conducted in different parts of the country to elect leaders at national, regional, and local levels. However, the 1959 general elections paved the way for the emergence of Nigeria as an independent country. Since then, various elections have been held either in transition, from one civilian government to another, or from a military to a civilian government.

In the post-independent elections conducted in Nigeria, Ijayi (2004) argues, these are characterized by massive fraud, intimidation of political opponents, and controversy. He holds that governments in power have had their own designs and have used the instruments of the state to perpetuate electoral brigandage, thuggery, violence, and warfare. This argument demonstrates that elections in Nigeria have failed to promote the emergence of a democratic culture, even within the limited application that it has in the bourgeois social order. Indeed, each set of elections seems to deepen the culture of violence, authoritarianism, human rights abuse, corruption, and class materialism. Each succeeding election seems to perfect in an even more perverse sense, the abuses that characterize earlier elections. Thus, with each successive election, ruling elites are not only increasingly isolated from the people but also come to relate with them increasingly through violence, contempt, repression, and authoritarianism.

Election cycles have appeared to be one of the most challenging periods in the national life of Nigeria. It is no wonder then that both political actors and their supporters deploy different persuasive strategies to elicit support and woo voters to gain and control power. Such struggles to control the reins of political power are often accompanied by rising tensions that result in violence. For instance, the 1965 general election crisis that led to the truncation of civilian rule in the first republic, as well as the violence that characterized the 2011 general election, posed a threat to national unity.

In view of the challenges confronting electoral processes in Nigeria, many Nigerians and beyond have clamored for introduction of smart technology into the Nigerian electoral system. This will help to mitigate electoral fraud and violence for them. In response to this, the Independent National Electoral Commission (INEC) adopted the use of a Permanent Voters Card (PVC), which has microchips for voter information, and a Smart Card Reader (SCR) was introduced and deployed to verify and authenticate voters through the PVC. With this function, only electorates accredited by the device were considered eligible to vote. This was also adopted in the 2019 general elections, which had a massive deployment, with the aim of avoiding requiring a manual register for accreditation. Subsequent elections outside the election cycle have witnessed the deployment of an upgraded version of smart technology known as the Bimodal Voter Accreditation System (BVAS). The device uses fingerprints and facial recognition to verify voters. It also has the capacity to store and transmit election results beginning from polling units into the INEC data bank.

Incontestably, it is clear that the election management body (INEC), with support from many Nigerians, has adopted the deployment of smart technology in the electoral process of Nigeria. It is against this background that this study investigates the impact of smart technology on the electoral process in Nigeria.

Research Questions

- 1) How has smart technology affected the credibility of the electoral process in Nigeria?
- 2) What is the degree to which Nigerians accept smart technology in the electoral process?

CONCEPTUAL REVIEW

Election

Some political scholars have viewed the concept of election from different perspectives. Some have seen elections as a form of political participation that is pivotal to the practice of democracy and has the capacity to disrupt democracy and the unity of a nation if not well managed. There may not be any doubt about this fact because in Nigeria, people mainly and generally participate in politics during the election period. Shashi (2007) sees elections as a process by which public or private officials are selected from a field of candidates through the casting of ballots in a vote. He maintains that in politics, the act of choosing a representative or the holder of a particular office is usually by ballot. This assertion shows a representative form of governance in action, which is part of the Nigerian political system. In representative political practice, people have the right to decide who they represent. This is in line as Nnanabu (2011, p.20) statement that election is an inalienable right of the citizenry to elect its leaders according to the constitutional provisions of the country. For him, an election is the mandate of the people according to the principle of democracy to vote into power for the candidates of their choice. Nnanabu further maintains that elections are instruments of power transferred to people-oriented governments, and the means of achieving democracy is through elections. This shows that a true democracy cannot be actualized without a viable electoral process, which is an authentic and effective means of achieving virile and uninterrupted democracy. Therefore, election is an instrument used in democratic dispensations for elective positions. This assertion presents the legal aspects of election, where it is made clear as the constitutional right of citizens. Anyanwu (2023) conceives of elections beyond the constitutional right of citizens, but rather as a fundamental or natural right of citizens that could only be enshrined in the constitution for protection.

In the same vein, Amadi (2005) stated that election is a process of choosing a person or group of persons for a political position by voting, or as the act of electing candidates to represent a particular geographical area in the parliament, executive, or any other area of government. He maintains that elections take different forms in different societies; the forms they take and the precise roles they play vary enormously from place to place and over time. Arguing that elections serve primarily as instruments of mass mobilization and regime legitimization, each type of election must have certain elements. This argument is true in Nigeria, where people are mainly found participating in politics during elections, probably because it is the means through which they can choose who represents them. Similarly, Ujo (2002) argued that election is a procedure that allows members of an organization or community to choose representatives who hold positions of authority within it. He maintains that during elections, voters are given the opportunity to choose between alternative contestant programs, which help promote public accountability. In line with this assertion, Nwakodo (2008) points out that election is a form of procedure recognized by the rules of an organization, where all or some of the members of the organization choose a smaller number of persons or one person to hold office or authority in the organization. This makes it clear that elections provide an avenue for making a choice that is open, fair, and acceptable to all concerned, and it is this element of choice that distinguishes elections from other methods of selection of leaders, and it is through elections that people choose their leaders and make binding decisions concerning policy on voting. For Jega (2011), an election is a future investment. In the context of this research, this assertion can be seen as a fact that the present conduct of elections determines the future success and participation of people in subsequent elections and politics in general.

Democracy

Democracy is a form of government that encourages maximum participation in government processes. However, some scholars view democracy as a concept and practice centered around political participation by citizens. Edmund (2008) saw democracy as actions that involve private citizens in which they seek to influence or support government and politics. It promotes greater participation by citizens in public affairs. He identified two types of participation: conventional and unconventional. For him, conventional behavior is an act that is acceptable to the dominant culture in a given situation. Thus, plastering campaign posters on public buildings is a conventional approach, while writing slogans on walls is not. Voting and membership of a political party are examples of conventional political participation, while staging sit-down strikes in public buildings and thuggery are examples of unconventional political participation.

Appadorai (1968) considered the term “democracy.” For him, it connotes political participation, which he equally sees as political liberty is the right to a share in the government of the state. People or citizens share sovereignty and are submissive to the laws of the state. He maintains that political participation involves; participation in an election, either as a voter, official, contestant, or observer. For him, the existence of periodic elections, accountability, and equal eligibility to government offices created the right to government criticism. It is therefore pertinent to note that political participation does not end with people exercising their franchise; rather, there should be a constant existence of public opinion, which can only occur within a democratic environment.

INEC and the Introduction of Smart Technology

In the effort to enhance the credibility of elections in Nigeria, INEC under the chairmanship of Prof. Attahiru Jega made a decision to adopt and apply the use of some smart technology—Permanent Voters Card and Smart Card Reader (SCR), and subsequently, under the leadership of Mamood Yakubu, the Commission adopted and deployed a device known as the Bimodal Voter Accreditation System (BVAS). There is no doubt that the INEC is empowered to perform the functions conferred on it by the Electoral Act of 2010 (as amended). The Policy and Legal Advocacy Center (as cited in Alebiosu, 2015) argued that section 188 of the 1999 constitution (as amended) subjects the registration of voters and the conduct of elections to INEC’s discretion, while section 16 of the electoral Act, 2010 (as amended) gives INEC the power to design, print, and control the issuance of voter cards to voters whose names appear on the register.

The success of the 2011 general election marked a watershed in Nigeria’s democratic trajectory. This contrasted sharply with previous polls’ mismanagement and widespread fraud. For instance, Aziken (as cited in Nwangwu, 2015) observed that at the end of the voter registration exercise in 2011, INEC claimed that a total of 73 million Nigerians had registered, out of which the automated fingerprint identification system had removed 800,000 persons for double registration. Determined to improve the outcome of the 2011 polls, the INEC has set in motion various reform measures to ensure credible and successful elections. Some measures were initially introduced for the 2011 elections with appreciable results and implications for the 2015 elections. These include:

- i) A new Biometric Register of Voters
- ii) Re-modified Open Ballot System (REMOBS)
- iii) Improved standards for production of sensitive electoral materials (serial numbering and color-coding of ballot papers and result sheets, and securing coding of ballot boxes).
- iv) Revised framework for result collation and returns

- v) More open and transparent procedures, modalities, and processes on election day (pasting of results at polling units and collation centers).
- vi) Improved voter education and citizen engagement
- vii) Creation of an Inter-agency Consultative Committee on Election Security (ICCES) to ensure coordinated engagement of all security agencies during election periods (Jega, 2014).

These reform measures taken by the INEC in the run-up to the 2015 elections were mainly driven by smart technology. However, the most novel and strategic measure taken was the introduction and use of the Permanent Voters Card (PVC) and the Smart Card Reader (SCR), which has been upgraded to the Bimodal Voters Accreditation System (BVAS). A SCR machine was used to verify the authenticity of the PVC and to carry out verification of the intended voter by matching the biometrics obtained from the voter on the spot with those stored on the PVC. The introduction of smart technology into the electoral process in Nigeria is a case of electoral policy. Public acceptance and compliance with the policy is predicated on the participatory nature of the policy process. This agrees with Mutiula and Anyanwu (2020) argument that a participatory policy formulation process is important for the success of every public policy.

Ejimonu and Anyanwu (2020) hold that, it can be noted that the 2011 voters register was Nigeria's first electronically compiled register and it helped in the production of the PVCs that were used in the 2015 general elections. According to a press release by Kayode Idou, the chief press secretary to then INEC Chairman (Prof. Attahiru Jega), the decision to deploy SCR for the 2015 general elections had four main objectives:

- i) To verify PVCs presented by voters at polling units and ensure that they are genuine, INEC issues (not clone) cards.
- ii) To biometrically authenticate the person who presents the PVC at the polling unit and ensure that he/she is the legitimate holder of the card.
- iii) To provide disaggregated data of accredited voters in the male, female, and elderly/youth categories, which is vital for research and planning purposes.
- iv) To be able to send data of all accredited voters to INEC's central server, equipping the commission to be able to audit figures subsequently filed by polling officials at polling units and thereby determine if fraudulent alterations have been made (Idowu, 2015).

In the 2011 elections, Nigerians have become conversant with the introduction of smart technologies by the INEC. From a smart card reader to a Z-pad device, which the election governing body adopted in a few offseason elections. In the quest for credibility in the electoral process, election regulatory raised the bar because they introduced the Bimodal Voter Accreditation System (BVAS). This approach was deployed in a few bye-elections within states and in the Anambra state governorship election in November 2021. The device contributed immensely to election credibility. However, this was not without some problems that the Commission promised to address for further deployment. In subsequent elections, including the 2023 general elections, the device is expected to carry out multiple functions - Voter Enrollment Device (IVED) during voter registration, Voter Accreditation on election day, and INEC Results Viewing Device (IRev Device) to be used for election result uploads on election day. Therefore, the BVAS is calibrated to carry out the functions of both the Smart Card Reader and Z-pad, having been designed to perform fingerprint authentication during the accreditation of voters and eliminate issues related to filling out incident forms (Odermi, 2022).

Theoretical Framework

The system theory of David Easton was adopted to analyze the study. David Easton was the first to develop a system framework for political analysis (Ball, 1983, Offiong, 1996). An idea extracted from the biological sciences, a system can be seen as a set of interrelated elements or sets of interdependent variables, while a political system, on the other hand, can be seen as a system of interactions in any society through which binding or authoritative allocations are made.

Udu (2015) asserted that a system is composed of elements or parts (sub-system) that function as a whole. In other words, there is an organic unity and interdependence between the component parts of a system such that any change in one part causes a change in other parts, and by extension, the entire system. A system has identifiable boundaries that distinguish it from the macrocosm within which it operates. However, if these cooperative and harmonious relations are lost or denied in a political system, then systemic breakdown is inevitable. Furthermore, this theory posits that a political system is an activity in which inputs from the environment are converted into outputs through authoritative values allocation. Consequently, as delineated by Easton, there are four (4) main processes involved in a typical political system: the input process, output process, conversion and feedback processes (Udu, 2015).

In further analysis, Easton (as cited in Udu, 2015) posited that while the inputs give the political system its dynamic character as it consists of Demands and Supports, the outputs refer to those values that have been authoritatively allocated for all of society. Since a system is primarily interested in survival and persistence, this information is essential for the authorities who make decisions about the system.

In the application of this theory, the introduction of smart technologies in the electoral system of Nigeria was a result of the demand and support from Nigerians for credible elections. The environment is represented by the Nigerian state and all the past negative experiences of electoral malpractice and the post-election violence witnessed in the country. These factors formed the basis for the demand and the support system of the Nigerian state. As such, the need for electoral transparency and credulity emanates from the environment. Demands on the electoral system, no doubt, come in virtually infinite variety of forms—from accurate and updated voter registers to the registration of qualified Nigerians, to actual voting, to proper and accurate collation, counting, and announcement of results.

The conversion process in the Nigeria context refers to those saddled with the authoritative allocation of value, that is, those elected as peoples' representatives. They also include other groups that constitute government mechanisms. They are responsible for the conversion of inputs, which are the demands coming from the environment, into adequate outputs through the decision-making process. The conversion process enabled the INEC to employ smart technologies to meet the demand of Nigerians for credible elections.

Methodology

This study adopted a quantitative research methodology. The cluster sampling technique is used to carry out a scientific investigation within a population. By Cluster sampling, the samples are clustered based on the six (6) Geo-Political zones in Nigeria. This technique made the coverage of the Area of Study (Nigeria) feasible.

The population of the study is made up of Nigerians who actually voted in the elections, totaling twenty-eight million, Six hundred and fourteen thousand, One hundred and ninety, (28,614,190,000), (INEC, 2019). This is because most electorates who participated in the 2019 general election were the same electorates who voted in the 2015 general election. The Taro Yamane formula was adopted to select the sample size. Data collection

instrument (questionnaire) was administered to the respondents in their various geo-political zones. To collect data for the study, a set of 400 (Four hundred) questionnaires were used to obtain information from the respondents.

Data collected were organized in tabular form for easy analysis. The statistical data collected were analyzed using "Simple Percentage Statistic Tool".

The following formula was respectively applied:

$$\frac{N}{TN} \times 100$$

TN 1

Cluster Table 1.1 Geopolitical zone distribution of respondents

Geo-Political Zones	Frequency	Percentage
North East	51	16.6%
Northwest	52	16.9%
North Central	51	16.6%
Southeast	51	16.6%
Southwest	51	16.6%
South South	51	16.6%
Total	307	100%

Source: Field Survey, May 2022.

The above table indicates the geo-political zones of the respondents, which is essential to this study as it has helped in the possibility of covering the study area considering its vast nature. The result shows that 51 respondents representing 16.6% are from the north east, 52 respondents representing 17% are from northwest; 51 respondents representing 16.6% are from north central; 51 respondents representing 16.6% are from south east; 51 respondents representing 16.6% are from the south west; while 51 respondents representing 16.6% are from the south south.

ANALYZING RESEARCH QUESTIONS

How Smart Technologies have Impacted the Credibility of the Election Process in Nigeria

Responses	Frequency	Percentage
High	78	25.4%
Very High	204	66.4%
Low	23	7.5%
Very Low	2	0.7%
Total 2019	307	100%

Source: Field survey, June 2022.

The distribution table above shows respondents' independent opinions on how smart technologies have impacted the credibility of the electoral process in Nigeria. To ascertain this degree and difference is essential as this study attempts to establish the importance of introducing technologies in the conduct of elections in Nigeria. The frequency distribution table indicates that 78 of the total respondents indicated that the impact was high. The table also indicates that 204 respondents, which is the highest number of respondents (66.4% maintain that the impact

is very high. Furthermore, 23 respondents (7.5%) believe that it is low, while 2 respondents (0.7%) argue that it is very low.

The Introduction of Smart technology in the Electoral Process of Nigeria is very popular among Nigerians

Response	Frequency	Percentage
Agree	83	27.0%
Strongly Agree	212	69.1%
Disagree	7	2.3%
Strongly Disagree	5	1.6%
Total	307	100%

Source: Field survey, June 2022.

It is important to determine the acceptability of the introduction of smart technologies in the electoral process by Nigerians. This will support or deny the INEC’s position that the majority of Nigerians have agitated and supported the introduction of technology in the country’s electoral process. The frequency distribution table above shows that 83 respondents out of the total respondents (27.0% “Agree”. The table further shows that 212 of the total respondents constituting 69.1%, which is the highest number “Strongly Agree”, while 7 respondents of 2.3% are of the view “Disagree”, and 5 respondents of 1.6% are “Strongly Disagree”.

Research Findings

The study revealed that the adoption of smart technology in Nigeria’s electoral process has immensely improved on the credibility of the electoral process. This is indicated in the outcome of the questionnaire as 204 respondents, which is the highest number of respondents, making a total of 66.4% of the total respondents held that the introduction of smart technology had a “Very high “impact on the credibility of the electoral process in Nigeria since the year 2015. This corroborates the argument by Anyanwu (2019) that the number of accredited voters reflects the actual votes counted in an election, unlike the experience before the introduction of smart technology where the number of votes counted was far higher than the number of accredited voters and even higher than registered voters in polling units.

This study, through its empirical results, finds a high level of acceptability and support for the introduction of smart technologies in the electoral process by Nigerians. This demonstrates legitimacy and encouragement to the actions and activities of INEC. In the survey, 212 respondents, the highest number of respondents (69.1% strongly agreed that Nigerians accept the introduction of smart technology in the electoral process. In line with this revelation, Anyang, (2019) holds that the element of technology in the electoral process has helped to build trust and confidence in the system, as some election results can now reflect the decisions of the majority of Nigerians.

Conclusion

Despite the challenges and malfunctioning of smart devices in some areas during elections, a significant impact of deploying the devices was noticeable. The introduction of smart technologies has reinforced public confidence in the electoral process. It has restored the electoral system to a situation in which the votes of the electorates count and determine who governs them. This explains why there has been a resurgence in voter registration and PVC collection. Portraying the repositioning of the electoral process, it is noted that unscrupulous politicians no longer indulge in ballot box snatching and stuffing but have resorted to vote buying in elections (indicating that votes now count), which is another electoral monster that needs to be dealt with. At this point, smart technology has proven to be a veritable tool for credible elections in Nigeria. The election organizing body (INEC) cannot

but improve and consolidate the deployment of election devices for a more free, fair, reliable, and credible election.

Recommendations

Based on these findings, the study recommends the following:

- 1) Every stage and level of the election process should be conducted using smart devices to ensure reliability and transparency.
- 2) The Commission should test and examine election devices to reduce the rate of malfunction during elections and ensure adequate software and cybersecurity to avoid hacking and corruption of the election server.
- 3) The Media, Civil Society Organization and the Citizens should be properly engaged and educated in introducing and deploying a new electoral device for popular support and acceptability.

References

- Alebiosu, E. A. (2015). *Smart card reader and the 2015 general elections in Nigeria*. Conference paper presented at INEC. <http://www.inecnigeria.org>
- Amadi, G. C. (2005). *Express politics*. A.C. Global Publishing Co. (Nig).
- Anyanwu, C. I. (2019a). Political implications of internally displaced persons in Nigeria: The Uzo-Uwani experience. *Veritas Journal of Humanities*, 1(1).
- Anyanwu, C. I. (2019b). The impact of electoral violence on general elections in Nigeria: A comparative analysis of 2015 and 2019 general elections. *Kaduna Journal of Political Science*, 6(1).
- Anyanwu, C. I. (2023). Drug abuse and the challenge of electoral violence in Nigeria: A review. *VUNA Journal of History and International Relations*, 7(1), 1-9.
<https://www.veritas.edu.ng/journals/vunahisjournal.php>
- Appadorai, A. (1968). *Substance of politics*. Oxford University Press.
- Edmund, O. (2008). Impacts of political socialization on political participation: A Nigeria view point. *Administration Digest*, 1, 74-75.
- Ejimonu, E. C., & Anyanwu, C. I. (2020). Internal displacement and the challenge of election conduct in Nigeria: A study of the 2015 general elections. *Jalingo Journal of Social and Management Sciences*, 3(1).
- Idowu, K. (2015). INEC press statement on card reader. Retrieved from <http://www.inecnigeria.org>
- Ijayi, F. (2004). The conduct of elections and electoral practices in Nigeria. Paper presented at the NBA conference, Abuja.
- Jega, A. (2011). Challenges of conducting free, fair, peaceful, and credible elections in Nigeria. In Y. A. Zoaka & I. I. Uke (Eds.), *Conducting peaceful, free, and fair elections in 2011 and beyond: The role of stakeholders* (pp. 1-12). Chartered Graphic Press.

- Jega, A. (2014). *Electoral reforms in Nigeria: Prospects and challenges*. INEC Publication.
- Moru, P. (2004). *Issues with Nigerian elections*. Makos Publishers.
- Mutiula, A. O., & Anyanwu, C. I. (2020). Participatory policy process as roadmap to economic development: A study of Nigeria. *International Journal of Advanced Research in Public Policy, Administration and Development Strategies*, 4(1).
- Nnanabu, E. (2011). Credible election as a condition-sine-qua-non for the emergence of authentic leaders. *The Light*, 1(2), 20-21.
- Nwakodo, U. P. (2008). The 2007 general elections and the consolidation of democracy in Nigeria: The imperative of electoral reform. *Administration Digest*, 1(3), 50-52.
- Shashi, S. S. (2007). *International encyclopedia of social science*. Mehra Offset Press.
- Ujo, A. A. (2002). *Understanding elections*. Jorce Graphic Printers and Publishers.