Journal of Public Administration, Policy and Governance Research (JPAPGR), Vol. 4, No. 2, 2026. Available online at https://jpapgr.transglobalacademic.com/jpapgr/index. P-ISSN:2787-0464 E-ISSN: 1595-6776. Covered in google scholar, Europub, etc.
Inyang, Dorathy Ufot, Innocent Undibenale Uzinyia & Mbu-Ogar Angela, 2026*, JPAPGR, 4*(2):27-39

Influence of INEC Voter Enrolment Devices on Electoral Participation in the Federal Capital Territory

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Abstract

Voter registration apathy poses a significant challenge to democratic participation in Nigeria. In response the INEC introduced the IVED to improve the efficiency, accuracy, and accessibility of voter registration. This study assesses the role of IVED in reducing voter registration apathy in the Federal Capital Territory (F.C.T), Nigeria following the conclusion of voter registration for the 6 Area Council election. Adopting a Mixed –method research design, data were collected through structures questionnaires and focus group discussion among voters across the six area councils. The Quantitative data were analyzed using descriptive statistics, while the qualitative were subjected to thematic analysis. The findings indicated that IVED improved the speed and credibility of voter registration and enhanced public confidence in the registration process. However, challenges such as network connectivity issues, inadequate registration centre s, continued to contribute to registration apathy among some eligible voters. The study concludes that while IVED has the potential to reduce voter registration apathy in the F.C.T, its effectiveness depends on complementary measures such as improved infrastructure, enhanced staff training and sustained voter education. The study recommends strengthening of the Continuous Voter Registration and provision of enough IVED in all polling units and the deployment of electoral technologies in Nigeria.

Keywords: *INEC Voter Enrollment Device, Voter Registration, Apathy, Electoral Technology, F.C.T, INEC, Nigeria.*

Introduction

Electoral participation is fundamental pillar of democratic governance, as it confers legitimacy on political leadership and ensures citizens' inclusion in decision making processes (Dahi, 1989; Norris, 2011). At the core of participation is the registration of voters, which is the platform for citizens willingness to exercise their right to vote. The Continuous Voter Registration in Nigeria, is bedeviled with weaknesses in voter registration systems such as multiple registrations, ghost voters, administrative inefficiencies, and low public confidence have historically contributed to registration apathy and declining trust in electoral processes (Ayoade, 2006; Omotola, 2010) In response the INEC adopted information and communication technology to enhance electoral administration, A major innovation in this regard being the IVED, a biometric –based technology designed to capture voters demographic and biometric data more accurately and efficiently. The IVED was introduced as part of a broader electoral reforms aimed at improving the integrity of the voter register, reducing fraud and strengthening public confidence in Nigeria's electoral system (INEC,2018; Adetula, 2019)

The Federal Capital Territory occupies a unique position in Nigeria's electoral framework. As the seat of the nation's capital, the FCT is characterized by high population mobility, socio-cultural

diversity and intense political activity as well as highly urbanized city areas and rural communities. These features present both administrative challenges and opportunities for voter registration, making FCT a strategic environment for evaluating the effectiveness of electoral technologies such as IVED (Jega, 2017; INEC, 2022). Therefore, the deployment of IVED in the 6 Area Councils of the FCT provides a critical context for examining how voter registration technology influences registration behavior and level of citizens' participation. Despite the intended benefits of IVED, its deployment has encountered several operational challenges. Empirical reports and observe reports have identified issues including device malfunction, inadequate power supply, poor network connectivity, limited technical capacity of registration personnel and congestion at registration centres (Yiaga Africa, 2021; INEC ,2023) Such constraints may discourage prospective voters from completing the registration process, thereby reinforcing registration apathy. Conversely, where the IVED functions effectively, it has the potential to simplify the registration process, eliminate duplicate registrations and enhance transparency, which may encourage greater voter participation (Norris, 2015; Adetula, 2019)

Existing literature on electoral technology in Nigeria has focused on election-day technologies such as SCR and the Bi-modal Voter Accreditation System (BVAS), with relatively limited scholarly attention devoted to voter registration technologies like IVED (Ojo, 2029; Iwuamadi & Onapajo, 2020) Furthermore, many studies adopt the national or state analysis, often overlooking the specific administrative and behavioural dynamics within the FCT. Given the demographic and institutional characteristics of the F.C.T, a focused empirical assessment is necessary to fill the gap in the literature. The need for such assessment is timely in the light of the recent voter registration exercises conducted ahead of Area Council and general elections in F.C.T. These exercises have generated public debate regarding the accessibility, efficiency, and credibility of the IVED-based registration process (INEC,2022; Yiaga Africa, 2023) Understanding how the use of IVED affects citizens' willingness to register and their perceptions of the registration process is therefore essential for designing effective voter mobilization and administrative reforms.

The study is anchored on the premise that while technology is not a panacea for electoral challenges, it plays a significant mediating role in shaping electoral participation. The influence of IVED on voter registration apathy is contingent not only on its technical performance but also on institutional preparedness, user experience, public awareness, and trust in INEC as an electoral management body (Norris,2014; Jega, 2017. By focusing on the FCT, this study seeks to generate specific evidence capable of informing electoral policy and practice.

Assessing the influence of IVED on voter registration and participation in the FCT contributes to broader debates on technology driven electoral governance in Nigeria. It also provides empirical insights that can guide INEC, policy makers, CSOs and developing partners in efforts aimed at reducing registration apathy, enhancing inclusiveness, and strengthening democratic consolidation (Omotola, 2010; INEC, 2023)

STATEMENT OF PROBLEM

The central problem of the study is to examine the influence of INEC Voter enrolment devices as it affects electoral participation in the Federal Capital Territory. The introduction of IVED by INEC was intended to improve voter registration by enhancing efficiency, accuracy, transparency, and public confidence in the registration process. As an electoral technology, IVED is expected to positively influence voter registration participation by simplifying enrolment procedures, reducing human interferences like weaknesses, falsification of registration figures, registration by proxy and

eliminating multiple registrations and enhancing transfer of voter registrations and other updates. Implicit in this expectation is a direct relationship between the effective deployment of IVED and reduced voter registration apathy. Despite these technological interventions, voter registration turnout in many parts of the country, including the FCT, remains inconsistent and in some cases very discouraging.

In the FCT which serves as Nigeria's political and administration centre, voter registration exercises have been characterized by reports of long queues, device malfunction, limited registration centres, poor public sensitization, intimidation have led to frustration, distrust and eventual withdrawal of eligible citizen from the registration process. Consequently, the deployment of IVED has inadvertently reinforce voter registration apathy which it could have been a catalyst for increased citizen participation. Although several studies have examined the use of electoral technologies such as the BVAS in voting and accreditation, there is noticeable gab in empirical research focusing specifically on the IVED and its influence on voter registration behavior, particularly in the FCT context. Existing literature does not disaggregate the distinct effects of IVED and how it affects citizens' willingness to register and participate in elections. Consequently, the specific relationship between IVED Operational efficiency (such as accessibility, reliability, ease of use and staff competence) and voter registration apathy remains underexplored particularly in the FCT. This gab obscures understanding of whether observed low registration turnout is a function of citizen disengagement or systemic technological and administrative shortcomings

The problem addressed by this study, therefore, is the absence of specific evidence explaining how IVED related factors influence voter registration participation and apathy in the FCT without clearly establishing the nature and direction of this relationship, INEC's technological investments may fail to achieve their democratic objectives. The study seeks to empirically examine the relationship between IVED deployment and voter registration participation in the FCT, with a view to determining whether IVED functions as a facilitator or inhibitor of voter registration and how its operational variables shape citizens' registration decisions.

OBJECTIVES OF THE STUDY

Broad Objectives: To assess the role of IVED in reducing voter registration apathy in the F.C.T

Specific Objectives:

1. To examine voters' perception of IVED during the voter registration in FCT
2. To assess the extent to which IVED Improved accessibility and efficiency of voter registration in FCT
3. To identify operational and technical challenges encountered during the use of IVED IN FCT
4. To determine whether IVED influenced voter willingness to register in FCT

RESEARCH QUESTIONS

1. How did voters in the FCT perceive the use of IVED during the concluded registration exercise
2. To what extent did IVED improve voter registration process n FCT
3. What challenges affected the effective use of IVED in the FCT.
4. Did the use of IVED influence voter registration willingly in the FCT

Scope of Study

Federal Capital Territory was selected for this study because it has conducted and concluded 2025 voter registration exercise in the six Area Councils (Abuja Municipal Council, Abaji, Bwari, Gwagwalada, Kuje, and Kwali) Kwali via IVED for the F.C.T 21st February, 2026 Area Councils Election; being the nation's capital, there are internally mobile population, Civil Servants, Youths and first-time voters therefore the challenges relating to voter apathy and administrative constraints during registration could be identified for empirical assessment. The F.C.T is also chosen because both urban and rural Area Councils environments exist in the Capital Territory which allows for an in-depth analysis of IVED'S effectiveness cutting across diverse socio-demographic settings.

REVIEW OF RELEVANT LITERATURE

Conceptual Issues

INEC Voter Enrolment Devices

INEC voter enrolment device (IVED) was initially used for the verification of Voters' Cards (PVCs), fingerprint or facial authentication of voters and voters' accreditation (Rivas et al., 2022). Edet et al., (2023) on his part said that the IVED was meant to replace both the manual enrollment system and the Z-pad. The IVED can also be used to checkmate multiple enrolment of names in the voters' enrolment register. Cases of multiple voting and identity theft would cease to appear in any election with the IVED (Hagos et al., 2016). In agreement, Olatubi et al. (2018) stated that the use of IVED would resolve enrolment challenges such as tracing or missing of names in the register and cutting corners in the enrolment process.

According to Ning et al., (2021) challenges were encountered in the use of IVED, some of which border on technical, administrative or logistics. The technical hitches identified in the use of IVED invariably caused delay in the enrolment process. They equally noted that the IVED will not only reduce human interference in the enrolment process but also enable quick viewing of names. The IVED is believed to perform multipurpose functions such as using it for voter enrolment/ voter registration, voter accreditation on the day of elections, and as results viewing device which enables election to be conducted (Ning et al., 2021).

The IVED usage in elections is considered essential in the attainment of free, fair and credible election results. According to Badams and Jaffe (2018), the primary purpose of IVED in election is to facilitate speedy enrolment processes, especially in the areas of documentation, record keeping and information retrieval. Badams and Jaffe (2018) added that the IVED as a technological resource accelerates record keeping, and retrieval of information and processing of data. In developed countries, biometrics technology is commonly used to speed up the enrolment processes required for elections. This also enables election administrators to use various technological devices in decision making.

Similarly, Abdulla (2020) suggested that lack of motivation, financial constraints and unavailability of soft and hardware were contributing factors to the poor use of technology for election purposes in third world countries. He added that the cost of acquiring registration biometrics devices for elections is expensive, thus, making acquisition of biometrics technology a rare occurrence in

Africa. In a similar development, Abdulla (2020), further maintained that for electoral officials to cope with the complex and dynamic nature of elections in Nigeria, IVED technology is essential in the enrollment and documentation processes. Blaii and Dion (2019) opined that IVED is endorsed as a result of its performance–based and result oriented optimization.

According to Edwards (2021), every US electoral official is Biometric Voter Registration compliance and that the technology has created opportunity for collaboration between voters and the officials as they work in tandem to resolve complex enrolment issues involving problem solving. The Biometric Voter Registration usage in South Africa is piloted and used for prison voter registration which has also resulted in error reduction and allows more time and flexibility in handling enrolment matters. Edwards (2021) also opined that IVED have provoked a continuous change in the electoral processes.

A report by the Chrislay (2017) reported that the use of IVED is essential towards providing an equitable and responsible strategy for carrying out enrolment for conducting credible elections. The Chrislay (2017) further reported that IVED often serve as a technological device to process voters' information needed for election purposes. Chrislay (2017) also asserts that the value of IVED is first and foremost to accredit voters before voting and also used to upload results. Oni and Adeqale (2018) assert that IVED has helped to determine the number of accredited voters in any election. The successful conduct of elections depends on an electoral system that utilizes IVED to manage information, gain knowledge, innovate and above all think. Hansen (2021) opined that IVED can be used for online inquiry or research and that in this technological age, budgets for IVED need to be expanded as to ensure access to information technology. Jibrin (2022) also affirmed that IVED databases are needed for voting processes and that widely acceptable and proficient election results are made available and accessible through the IVED device.

Doucouliagos (2017) argued that election performances in East Asia had been improving continuously from 50.7 per cent to 82.3 per cent during the last five years due to the increasing use of Enrollment Device.Doucouliagos (2017) further provided many factors for the elections' high performance to include sufficient Devices and expert handlers of the devices to ease the electoral processing. However, Galvani (2015) on his part stated that the introduction of Voter Enrollment Device in Tanzania did not yield the expected outcomes. According to him, 25 per cent of the polling units were not provided with IVED during the 2020 elections. Galvani (2015) view that elections conducted with few technological resources such as the IVED and trained IVED experts as well as the high cost of IVED undermined the success of an election.

Cosgel and Miceli (2018) argued on the shortage of technological resources when he said that in recent years the provision of IVED for election purposes in India had increased dramatically, primarily through government support. The number of African countries using IVED for election purposes had improved, though were yet to reach adequate levels, possibly because the cost of IVED has continued to be on the high side. Adeoye et al, (2023) argued that IVED had come to play significant roles in elections in African countries and that in order to maintain a significant role the IVED plays in the conduct of elections, it should be more strengthened; and its contributions should be measured and assessed relative to other devices. Bellow (2016) have identified reasons why so many African countries are not utilizing IVED for elections. These include absence of IVED knowledge among officials, lack of awareness of the importance of IVED among the voting population and non-exposure of voters to good IVED literacy and services as well as lack of IVED experts to manage the devices. However, other factors can hinder the

effectiveness of IVED including digital exclusion, inadequate internet infrastructure, unreliable power supply for charging devices and the security challenges in certain areas. Additionally, socio-economic and educational differences, biased media coverage and the nature of political mobilization may impact the functionality and accessibility of the IVED.

Theoretical framework

The technology acceptance model by Fred Davis (1986) was used to analyze the influence of INEC voter enrollment devices on electoral participation: assessing their roles in reducing voter apathy in Nigeria. The technology acceptance model was formulated by Davis (1986). It is an information model that explains users' acceptance of information systems or technologies. In other words, it models why and how users accept and use a technology. The model identifies two basic factors that determine whether a technology such as the computer will be accepted by its potential users or not. These are perceived usefulness and perceived ease of use. It however recognizes five constructs that determines whether a person will accept the use of a technology. These constructs are: perceived ease of use, perceived usefulness, attitude towards use, intention to use and actual behavior.

The model predicts that intentions lead to behavior, but also recognizes the fact that intentions do not always guarantee behavior. Its emphasis is that behavioral intention is a factor that leads people to use the technology. The actual system use is the end-point where people use the technology. Davis identifies factors that affect the technology acceptance model to include assumes performance expectancy, effort expectancy, social influence and facilitation conditions. Davis also considers individual perspectives and social and environmental factors to influence the acceptance and use of technology. For instance, when users perceive that a type of technology is useful and also easy to use, they will be willing to use it. Consequently, the model assumes that "the acceptance of technology is predicted by the users' behavioral intention, which is in turn determined by the perception of technology usefulness in performing the task and perceived ease of its use". The technology acceptance model also assumes that technology has three important stages, namely: invention, innovation and diffusion. Each stage has inherent resources that attract its acceptance and use.

This theory has some relevance on the current study. It implies that for Nigeria to be able to have effective election administration there must be technology use acceptance which can be enhanced by deliberate behavioral intentions. In other words, Nigerians including the government and INEC staff must as a matter of necessity perceive and understand the usefulness of technologies such as INEC voter enrolment device (IVED). The government and by extension, INEC must also develop positive attitude towards technology use as well as intention to use them. Effective electoral participation that would reduce voter apathy in Nigeria would importantly depend on the actual behavior of government and INEC officials to accept and use INEC voter enrollment device.

Technological Determinism Theory

The Technological Determinism Theory, propounded by Marshall McLuhan (1964), posits that technological advancements shape societal behaviours and influence political, economic, and social processes, In the context of elections, this theory suggests that introduction of voter enrollment devices such as biometric voter registration and electronic accreditation systems,

directly impacts voter participation by reducing the barriers to voter registration and electoral fraud (Adebayo & Oladimeji, 2021)

In Nigeria, the introduction of the Biometric Voter Accreditation System (BVAS) and the INEC Result Viewing Portal (IREV) has been seen as a technological shift aimed at enhancing electoral integrity and increasing public trust in the voting process (Okonkwo & Ajayi, 2022). By making voter registration and authentication seamless, voter enrollment devices encourage more citizens to participate in elections, thereby addressing the issue of voter apathy (Nwankwo, 2021). This theory supports the argument that technological improvements in electoral processes can drive changes in voter behavior; increasing turnout and reducing skeptism towards election (Olatunji & Chibuzor, 2020)

Methodology

The research design adopted for this study is ex-post facto design. The research area is FCT in Abuja, Nigeria. There are six Area Councils in the FCT. The study population is 1,680,315, which consist of Independent National Electoral Commission (INEC) staff in all INEC offices in the Area Council, Civil servants, students of tertiary institutions and the federal capital territory as informants. The Taro Yamane (1967) statistical method was used to arrive at the sample size. Although Taro Yamane's formula produced a minimum sample size of 400, the sample was doubled to 800 respondents to improve representativeness and reduce sampling error. This sample constitutes approximately 0.048% of the total population of 1,680,315. The study employed a multi-stage sampling technique. First, the population was stratified by the six Area Councils (LGAs) in the FCT, and the total sample of 800 respondents was allocated to each LGA proportionally to its share of the registered voter population. Within each LGA, simple random sampling was used to select respondents from available lists of INEC staff, civil servants, and students, giving each individual an equal chance of selection. In cases where access to respondents was limited, accidental sampling was employed, selecting participants who were readily available and willing to participate. This approach ensured both representativeness across LGAs and practical feasibility in data collection

Both primary and secondary sources of data were used. The primary source was a questionnaire titled "Survey Instrument on IVED and Voter Registration Experience in the Federal Capital Territory" that was used to collect raw data. The questionnaire was validated through face and content validity. Experts in political science, electoral studies, and research methodology reviewed the instrument to ensure clarity, relevance, and alignment with the study objectives. Their feedback informed minor revisions, confirming adequate coverage of all constructs. Reliability was assessed using Cronbach's alpha based on data from a pilot study conducted outside the main sample. The internal consistency coefficients were acceptable: Voters' Perception of IVED ($\alpha = .82$), Accessibility and Efficiency of Voter Registration ($\alpha = .85$), Operational and Technical Challenges ($\alpha = .79$), and Voter Willingness to Register ($\alpha = .88$). All values exceeded the recommended threshold of .70, indicating satisfactory reliability (Nunnally & Bernstein, 1994). Data were collected after the conclusion of Voter Registration for the F.C.T, enabling respondents to reflect on their registration experiences and decisions including reasons for participation and non-participation. while the secondary source includes the use of textbooks, internet, magazines and INEC records. The copies of the questionnaire were administered to the respondents in their workplaces at the various INEC offices in the states. The instrument was drawn on a four-point

Likert scale. Descriptive statistics-frequent counts, simple percentages, were used in the analysis of data, summarized and presented in tables.

Results

Research question one

How did voters in the FCT perceive the use of IVED during the concluded registration exercise. To answer this research question, descriptive statistics of frequency counts and simple percentages was used and the results presented in Table1.

TABLE 1: Distribution of responses on voters' perception of IVED during voter registration in FCT (n = 800)

S/n	Items	SA	A	D	SD
1	IVED enhanced the credibility of voter registration	420 (52.5%)	265 (33.1%)	78 (9.8%)	37 (4.6%)
2	IVED made voter registration more transparent	398 (49.8%)	276 (34.5%)	86 (10.8%)	40 (5.0%)
3	Data captured using IVED is accurate	365 (45.6%)	290 (36.3%)	101 (12.6%)	44 (5.5%)
4	IVED improved public trust in INEC	382 (47.8%)	271 (33.9%)	97 (12.1%)	50 (6.3%)
5	Overall perception of voter registration improved with IVED	410 (51.3%)	255 (31.9%)	93 (11.6%)	42 (5.3%)

Source: Fieldwork, 2025

Table 1 presents respondents' perceptions of the use of the INEC Voter Enrolment Device (IVED) during voter registration in the Federal Capital Territory. The results show a generally positive perception of IVED among respondents. A majority of respondents strongly agreed or agreed that IVED enhanced the credibility of voter registration (85.6%), improved transparency (84.3%), ensured accuracy of captured data (81.9%), and increased public trust in INEC (81.7%). Similarly, 83.2% of respondents indicated that their overall perception of voter registration improved with the introduction of IVED. The relatively low proportions of disagreement across all items suggest that IVED was largely viewed as a credible and trustworthy innovation in the voter registration process in the FCT.

Research question 2
To what extent did IVED improve voter registration process in FCT. To answer this research question, descriptive statistics of frequency counts and simple percentages was used and the results presented in Table1

TABLE 2: Distribution of responses on accessibility and efficiency of voter registration using IVED in FCT (n = 800)

S/n	Items	SA	A	D	SD
6	IVED improved accessibility of registration centres	372 (46.5%)	289 (36.1%)	95 (11.9%)	44 (5.5%)
7	IVED reduced time spent during registration	401 (50.1%)	267 (33.4%)	88 (11.0%)	44 (5.5%)
8	Voter registration became faster with IVED	415 (51.9%)	260 (32.5%)	81 (10.1%)	44 (5.5%)
9	IVED improved organization of registration exercises	356 (44.5%)	298 (37.3%)	96 (12.0%)	50 (6.3%)
10	IVED made voter registration more convenient	384 (48.0%)	275 (34.4%)	92 (11.5%)	49 (6.1%)

Source: Fieldwork, 2025

Table 2 shows respondents' views on the extent to which IVED improved the accessibility and efficiency of voter registration in the FCT. The findings indicate strong positive responses across all items. Over 82% of respondents agreed that IVED improved accessibility to registration centres, while 83.5% affirmed that it reduced the time spent during registration. Furthermore, 84.4% of respondents agreed that the registration process became faster, and 81.8% acknowledged improved organization of registration exercises. Overall, 82.4% of respondents agreed that IVED made voter registration more convenient. These results demonstrate that IVED substantially enhanced both accessibility and operational efficiency of voter registration in the FCT.

Research question 3

What challenges affected the effective use of IVED in the FCT. To answer this research question, descriptive statistics of frequency counts and simple percentages was used and the results presented in Table 3.

TABLE 3: Distribution of responses on operational and technical challenges of IVED in FCT (n = 800)

S/n	Items	SA	A	D	SD
11	Device malfunction was common during IVED use	310 (38.8%)	282 (35.3%)	143 (17.9%)	65 (8.1%)
12	Network issues affected effective use of IVED	345 (43.1%)	291 (36.4%)	108 (13.5%)	56 (7.0%)
13	Power supply problems hindered IVED operation	332 (41.5%)	278 (34.8%)	126 (15.8%)	64 (8.0%)
14	INEC staff experienced difficulties operating IVED	298 (37.3%)	264 (33.0%)	163 (20.4%)	75 (9.4%)
15	Operational challenges reduced IVED effectiveness	325 (40.6%)	271 (33.9%)	132 (16.5%)	72 (9.0%)

Source: Fieldwork, 2025

Table 3 presents respondents' assessment of operational and technical challenges associated with the use of IVED. Unlike previous tables, the responses indicate notable challenges. A substantial proportion of respondents strongly agreed or agreed that device malfunction (74.1%), network connectivity issues (79.5%), and power supply problems (76.3%) affected the effective use of IVED. Additionally, 70.3% of respondents reported that INEC staff experienced difficulties operating the device, while 74.5% agreed that these challenges reduced the overall effectiveness of IVED. These findings suggest that although IVED was beneficial, its implementation was constrained by infrastructural and technical limitations in the FCT.

Research question 4

Did the use of IVED influence voter registration willingly in the FCT. To answer this research question, descriptive statistics of frequency counts and simple percentages was used and the results presented in Table 4.

TABLE 4: Distribution of responses on influence of IVED on voter willingness to register in FCT (n = 800)

S/n	Items	SA	A	D	SD
16	IVED encouraged more voters to register	402 (50.3%)	261 (32.6%)	92 (11.5%)	45 (5.6%)
17	Reliability of IVED increased willingness to register	386 (48.3%)	274 (34.3%)	94 (11.8%)	46 (5.8%)
18	IVED reduced fear of multiple registration	361 (45.1%)	289 (36.1%)	102 (12.8%)	48 (6.0%)
19	IVED positively influenced decision to register	394 (49.3%)	268 (33.5%)	90 (11.3%)	48 (6.0%)
20	IVED increased overall voter participation	408 (51.0%)	259 (32.4%)	87 (10.9%)	46 (5.8%)

Source: Fieldwork, 2025

Table 4 examines the influence of IVED on voters' willingness to register. The results reveal a strong positive influence. A combined 82.9% of respondents agreed that IVED encouraged more eligible voters to register, while 82.6% indicated that the reliability of the device increased willingness to participate in voter registration. In addition, 81.2% agreed that IVED reduced fears of multiple registration and voter fraud. Furthermore, 82.8% of respondents stated that IVED positively influenced their decision to register, and 83.4% believed that IVED increased overall voter participation. These findings indicate that IVED significantly enhanced voter motivation and participation in the voter registration process in the FCT.

Discussion of Findings

Research Question One: Voters' perception of IVED during voter registration in the FCT

Findings from this study indicate that voters in the FCT generally perceived the INEC Voter Enrolment Device (IVED) positively. A substantial majority of respondents agreed that IVED enhanced the credibility, transparency, accuracy, and trustworthiness of the voter registration process. This outcome suggests that IVED has contributed to restoring public confidence in INEC's registration system by reducing opportunities for manipulation and human interference. These findings are consistent with Chrislay (2017) and Olatubi et al. (2018), who reported that biometric enrolment technologies improve voter trust by ensuring accurate data capture and eliminating irregularities associated with manual registration systems.

Research Question Two: Extent to which IVED improved accessibility and efficiency of voter registration in the FCT

The results further reveal that IVED significantly improved the accessibility and operational efficiency of voter registration in the FCT. Most respondents agreed that the device reduced registration time, improved organizational coordination, and made the process faster and more convenient. These findings support the argument by Badams and Jaffe (2018) that biometric enrolment devices facilitate speedy documentation, efficient record keeping, and timely information retrieval. The improved efficiency observed in this study suggests that IVED has mitigated procedural bottlenecks that previously discouraged voter participation during registration exercises.

Research Question Three: Challenges affecting the effective use of IVED in the FCT
Despite the positive outcomes, the study identified considerable operational and technical challenges associated with the use of IVED. Respondents reported frequent device malfunction, network connectivity issues, power supply constraints, and difficulties experienced by INEC staff in operating the devices. These challenges align with Abdulla's (2020) assertion that infrastructural deficits, limited technical capacity, and high operational costs hinder the effective deployment of electoral technologies in developing countries. The persistence of these constraints indicates that while IVED is effective, its optimal performance is contingent upon sustained infrastructural investment, adequate logistics, and continuous technical training.

Research Question Four: Influence of IVED on voters' willingness to register in the FCT
The study also demonstrates that IVED positively influenced voters' willingness to register in the FCT. A large proportion of respondents agreed that the introduction of IVED encouraged registration, reduced fears of multiple registration and electoral fraud, and increased overall voter participation. This finding corroborates earlier studies by Ning et al. (2021) and Edet et al. (2023), which found that biometric enrolment systems can reverse negative voter attitudes by enhancing perceived fairness and security in electoral processes. The increased willingness to register observed in this study suggests that IVED plays a critical role in reducing voter apathy and strengthening democratic participation. Overall, the findings suggest that IVED has substantially improved voter perception, registration efficiency, and willingness to participate in the electoral process in the FCT, despite persistent technical and infrastructural challenges. These results underscore the importance of strengthening the deployment framework of IVED to consolidate its gains and enhance its long-term impact on electoral participation in Nigeria.

Conclusion

This study assessed the use of the INEC Voter Enrolment Device (IVED) and its influence on voter registration and electoral participation in the Federal Capital Territory (FCT), Nigeria. The findings show that IVED significantly improved voters' perceptions of the registration process by enhancing credibility, transparency, and trust in INEC. The device also improved the accessibility and efficiency of voter registration through reduced registration time, better organization, and increased convenience. Despite these benefits, the effective use of IVED was constrained by operational and technical challenges, including device malfunction, network connectivity issues, power supply limitations, and gaps in staff technical capacity. Nevertheless, the study concludes that IVED positively influenced voters' willingness to register and contributed to reducing voter apathy in the FCT. Addressing the identified challenges is essential to sustaining and expanding the gains recorded in the use of IVED for voter registration in Nigeria.

5.3. Recommendations

The following recommendations are made based on the findings of the study:

1. Since voter apathy in Nigeria can be minimized with the introduction of IVED, the government should without hesitation make provision for broader electoral reforms and improved governance.
2. Government should as a matter of urgency provide IVED in all polling Units in Nigeria for voter registration since the device can minimize apathy and the Polling Units are closer to the prospective voter;

3. INEC staff in all states of the federation should be reoriented and fully trained on the use of IVED so that they would do away with the manual method of electoral enrolment. This can be achieved through periodic workshops, seminars and conferences.
4. There is the need for INEC voter enrolment device (IVED) to be used as the only method of electoral enrolment in all forms of elections in the country. The use of IVED should be compulsorily used by all INEC staff in all elections.

References

Abdulla, E. T. (2020). Voters' voices and pressures in Nigerian politics. *Politics and Democratic Review, 56*(3), 66–74.

Adeoye, C., Oluwole, G., & Blesson, C. (2023). *The use of motivational tools in voters' needs: Assessment and evaluation* (4th ed.). Amazon. https://www.amazon.com/traininguniversitys-assessment-development-evaluation/dp

Ajayi, K. (2019). Election administration in Nigeria and the challenges of the 2019 elections. *Medwell Journals of the Social Sciences, 2*(2), 34–39.

Almond, G. A., Powell, G. B., Strom, K., & Dalton, R. J. (2016). *Comparative politics today: A world view* (11th ed.). Pearson.

Anya, O. A. (2021). *Politics, human behavior and economic development: An old problem with new dimensions* [Public lecture]. Cross River State University of Science and Technology, Calabar, Nigeria.

Badams, J. D., & Jaffe, A. B. (2018). Bounding the effects of political interface with electorates in Nigeria. *Journal of Political Economy, 1*(2), 15–23.

Bellow, M. (2016). The effect of voting processes on election results in the 2003 run-off senatorial elections in Benue State, Nigeria. *Electoral Politics Administration Quarterly, 12*, 66–86.

Blaii, A., & Dion, S. (2019). Electoral systems and consolidation of new democracies. In D. Ether (Ed.), *Democratic transition and consolidation in Southern Europe, Latin America and Southeast Asia* (pp. xx–xx). Macmillan Press.

Chaudhary, N. (2023). *Intervention strategies to reduce election rigging in Bhekulwandle*. https://doi.org/10.51415/10321/4730

Chrislay, T. (2017). Collaborative efforts of political parties in the conduct of credible elections in Oyo State, Nigeria. *Journal of Political Sciences, 23*(4), 28–36.

Cosgel, A., & Miceli, C. (2018). *The motivation and voters' decisions: A prediction study*. Harvard Business School Press.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Debnath, S., Kapoor, M., & Ravi, S. (2017). The impact of electronic voting machines on electoral fraud, democracy, and development. *Democracy and Development Journal, 16*(2), 43–51.

Doucouliagos, C. (2017). Aggregate demand of voters and democratic dividends in Australia: A meta-analysis. *Australian Journal of Politics and Economic Perspectives, 36*(69), 224–242.

Edet, A. B., Mgbekem, M. A., & Edet, O. B. (2023). Utilization of electronic voting procedures in elections. *ResearchGate*. https://www.researchgate.net

Edwards, B. (2021). Study of voters' welfare needs and approaches. *Journal of Experimental Politics, 32*, 285–388.

Galvani, S. (2015). The roles and capabilities of voters to influence policy decisions. In *Political participation and policy outcomes* (pp. 71–85). https://doi.org/10.1007/978-3-030-33404-8_5

Hagos, F., Alemseged, F., Balcha, F., Berhe, S., & Aregay, A. (2016). Application of election technology processes and their impact on Mekelle elections. *Hindawi Research Journal*.

Hansen, J. M. (2021). *Early voting, unrestricted absentee voting, and voting by mail* [Unpublished report]. Task Force on the Federal Election System. http://www.electoral-reform.org.uk

Jackie, G. (2023, November). *Nigerian elections* [Paper presentation]. Carter Center & National Democratic Institute for International Affairs, Lagos, Nigeria. http://www.cartercenter.org/documents/1153.pdf

Jibrin, I. (2022). *Elections and their implication for democratic government: A new electoral system*. George Robertson & Co.

Mhango, S., & Kambala, P. (2014). Perceptions of the electorate about electronic voting in Malawi. *College Politics, 33*(2), 62–70.

Ning, W., David, H., & Ping, L. (2021). Quality of elections with BVAS and approaches to credible elections: A mixed-method systematic review. *Journal of Advanced Politics, 67*(9), 1858–1875.

Olatubi, M. I., Faremi, F. A., Oyediran, O. O., & Salau, O. (2018). Utilization of technology for the conduct of elections in Pakistan. *Journal of Democratic Structures, 81*(4), 96–118.

Oni, L. O., & Adeqale, J. G. (2018). Evaluation of voter development as a component of communication intervention in politics in southwestern India. *European Journal of Political Studies, 4*(2), 291–299.

Pintor, R. L. (2020). *Electoral management bodies as institutions of governance*. United Nations Development Programme.

Rivas, F. J. P., García, J. M., Arenas, C. M., Lagos, M. B., & López, M. G. (2012). Implementation and evaluation of the election process using smart card readers in India. *International Journal of Politics and Research, 23*(1), 18–28.

Stenius, K., & Storbjörk, J. (2021). When politics is a problem: An empirical study of municipal elections in Swedish municipalities. *Nordic Research in Political Sciences*, 1–14. https://doi.org/10.1080/2156857X.2021.1907613