



Effect of Ad-hoc Staff Training on Election Outcomes in Kano State, Nigeria

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Abstract. The study titled “Effect of Ad-hoc Staff Training and Development on Election Outcomes in Kano State, Nigeria”, a quantitative survey research design was adopted. Data collection was done through the administration of structured questionnaires to the population of 300 ad-hoc staff in Kano state. The use of secondary sources includes reports from INEC on its past elections as well as guidelines on the ad-hoc staff training). The data collected were analyzed using inferential and descriptive statistics which include the Analysis of Variance (ANOVA) and multiple regression analysis. The findings of the study have shown that training on technological skills have great impact on the efficiency of Election Day activities, with a p-value of 0.000. On the other hand, the duration of training as an independent variable did not affect the efficiency and accuracy of electoral activities, with a p-value of 0.127. Pre-election training content as an independent variable was found to be statistically significant on the accuracy of electoral outcomes, with a p-value of 0.000. the study concludes that when ad-hoc staffs are well trained, the election delivered are more credible, even with more realistic voter-turnout and vote counts. Consequently, it was recommended that training for ad-hoc staffs should be extensive and effective. INEC should ensure training on technological expertise as well as the pre-election training on the conduct and ethics of electoral processes. Also, periodic training should be carried out as part of the refresher courses aimed at ensuring staff competence and updates on innovations in the electoral process.

Keyword: Ad-hoc Staff Training, Election Outcomes, election technological skills and duration of training

1. Introduction

Elections are the fundamental exercise of political rights, and their outcomes play an important role in the conduct of government and in society at large. Election management bodies (EMBs) are especially

important in democratic states, particularly as they engage in reforms to enhance the credibility of elections around the globe. One significant contributor to that credibility of elections is the professionalism of the staff, particularly ad-hoc staff that is often assigned to man polling units and executes critical tasks on Election Day.

Several studies have emphasised the role of training and development programmes for election staff in promoting the conduct and integrity of elections. A 2021 study by Collier and Vicente in the European Journal of Political Research shows that ‘the quality of election officials is one of the most important determinants of the success of election management bodies in a dual sense: they need to run elections well and they need to build public confidence in the outcomes’. Thus, training programmes focused on providing staff with the skills needed to manage electoral processes that involve complex and often novel features, such as registration systems, voting equipment, vote counting, and electoral law, are instrumental to the conduct of free and fair elections. Indeed, the growing complexity of election processes in many countries, underpinned by growing technological sophistication, such as the use of electronic voting and real-time transmission of results from voter rolls, numbering machines, and other sources, has increased the need for well-trained election staff who can manage these systems to deliver credible and secure elections.

Electoral bodies on the continent often complain of inadequate funding and limited capacity, as well as logistical difficulties. Ad-hoc personnel, the employees hired from the general staff to work exclusively on elections is often recruited on a temporary basis and forms a substantial number of electoral staff across the continent. In fact, a recent study on electoral failures in the continent found that ad-hoc staff was a major source of electoral shortcomings.

Or take the case that well-trained election staff is less likely to make errors in the electoral process that can lead to disputes and, subsequently, election-related violence, as Olukoshi and Laakso (2020) wrote across 10 different African states: ‘Election staff with lack of experience and training was more likely to make errors in conducting the election.’ The 2017 general election in Kenya was no exception: there were a number of legal challenges based on irregularities at polling stations, many of which were linked to election staff incompetence. The same can be said about the 2019 elections in Malawi. The results were challenged because of allegations of irregularities linked to untrained election staff. The country’s Supreme Court ended up annulling the election results.

Aware of these challenges, some African states have taken steps recently to bolster training of election staff. In Ghana, for instance, a range of training programmes has been instituted by the Electoral Commission to systematically impart the necessary knowledge and skills to ad-hoc staff on how to deal with Election Day challenges. Studies have demonstrated that these kinds of approaches have bolstered perceptions of credibility around elections, and improved the levels of trust that citizens place in elections as a whole.

It is in Kano State in Nigeria that ad-hoc staff are being hired to manage elections by the Independent National Electoral Commission (INEC), especially university lecturers, youth corps members and civil servants. Consequently, the inadequacies of the training and development of ad-hoc staff given in Kano State, Nigeria, has become a major topic of debate.

As Okonkwo et al. found in Kano State, such lapses have been repeatedly observed in the conduct of Nigerian elections. These include delays in the counting of votes, improper handling of the sensitive electoral materials, and poor communication between the polling units and the central electoral body. Such lapses have also eroded public confidence in election results and, in some cases, resulted in post-election violence. The 2019 general elections in Kano State, Nigeria received condemnation for various irregularities, many of which were blamed on ad-hoc staff who hadn’t been trained properly in the management of Election Day activities.

But recent developments suggest an upswing in the appreciation of the need for ad-hoc staff training in Nigeria. INEC has embarked on new reforms that show new levels of commitment to staff recruitment and training. For the 2023 general elections, INEC introduced new training modules in the use of technology in election, and new modules focused on

ethics and conflict management. Preliminary reports suggest that these reforms also mitigated electoral malpractices.

It is imperative that we rigorously examine the impact of ad-hoc staff training and development on the success of elections, especially in countries like Nigeria where the electoral process is often contaminated by irregularities that defeat the purpose of elections. Although INEC has improved the recruitment and training of ad-hoc staff over the years, the relationship between their recruitment and training practices and the success of elections has not been systematically studied. The relationship between effective training and election outcomes can provide useful direction for future electoral reforms.

Given that Kano State in Nigeria will hold future elections; this study is timely in addressing the issue of the credibility of the electoral process. The adoption or non-adoption of ad-hoc staff training programmes as a policy based on the findings of this research could contribute to the development of policy and practical measures to improve election administration in Nigeria.

The integrity of elections is a fundamental pillar of democratic governance, but elections in Nigeria are plagued by irregularities, inefficiencies and allegations of fraud, for which one of the factors cited is the inadequacies of the ad-hoc staff who organize elections. These temporary electoral workers play critical roles in the electoral process, and this role has not been fully complemented by their training and development, which is crucial for the credibility, transparency and acceptance of election outcomes. Given the role of ad-hoc electoral staff in election administration generally and the seeming lack of attention in the area of their training and development in Nigeria in particular, the purpose of this study is to establish the precise nature of the impact of training and development of ad-hoc electoral staff on the success of elections in Nigeria.

One major criticism of the Nigerian electoral system is its inability to ‘train the ad-hoc staff on election-day modalities, election technological application and use, conflict management, and compliance with electoral laws’. Most research on electoral reforms in Nigeria have focused on the bigger picture, such as role of political actors; very little has been done on training ad-hoc staff, who are often unprepared for the demands of the job. There are many contradictions noted in studies: while some scholars have argued that electoral training of ad-hoc staff improves the quality of election management (Ojo, 2020; Eme 2014), others have noted that poor training continues to impact negatively on the credibility of elections (Adeniyi 2021). This

indicates a major research gap that requires a much deeper analysis of how election outcomes are impacted by the various areas of training/development.

Most studies in this domain tend to only observe the effect of policies and strategies in improving the operational result of elections, but fail to offer empirical tests on how lack of training could lead to errors in electoral process, use of electoral technology, and electoral conflict. Second, there is a paucity of scholarship on how electoral training could affect voters' perception of electoral fairness, and more specifically, how the quality of training influences voters' perception of fairness. Although the literature subtly discusses problems related to training, none offer a clear framework to empirically assess this relationship, especially as it relates to elections in democratizing polities like Kano State, Nigeria, where problems such as post-election violence and general disillusionment about the electoral process are highly prevalent. This study is sustained by the assumption that the increasing use of ad-hoc staff at elections, exacerbated by new electoral reforms to deepen the use of technology requirement for vote accreditation and transmission, if not properly minded, could engender further problems if training and development manuals are not adequately improved. Addressing this gap becomes even more pivotal now than ever before, considering the enthusiasm by most developing countries to adopt electronic voting and transmission systems. Practically, the study would potentially enhance the efficiency of elections-day operations, reduction in election-related violence, and increase in public confidence in electoral outcomes. Theoretical contributions may come from a nuanced understanding of human resource development, trailing from bureaucratic perspectives, and detailed insights into the workings of election bodies in developing countries. The wider objective is to investigate the impact of ad-hoc staff training (pre-election training, technological skills and training duration) on the electoral outcomes Kano State.

The study seeks to answer the following research:

- To what extent does pre-election training of ad-hoc staff enhance the efficacy of voter registration in Kano State, Nigeria?
- What is the effect of technological skills by ad-hoc staff on the efficiency electronic gadgets in the election-day?
- How does the duration of training programs enhance the performance for ad-hoc staff enhance the in electoral management operations?

The study seeks to achieve the followings Research Objectives:

- To assess the extent to which pre-election training of ad-hoc staff enhances the efficacy of voter registration in Kano State, Nigeria.
- To examine the effect of technological skills acquired by ad-hoc staff on the efficiency of electronic gadgets used in election-day operations.
- To evaluate how the duration of training programs enhances the performance of ad-hoc staff in managing electoral operations.

The following Alternative Hypotheses (H1) was formulated to guide the study:

- Pre-election training of ad-hoc staff significantly enhances the efficacy of voter registration in Kano State, Nigeria.
- Technological skills acquired by ad-hoc staff significantly improve the efficiency of electronic gadgets used in election-day operations.
- The duration of training programs significantly enhances the performance of ad-hoc staff in electoral management operations.

2. Election Training

Election training is broadly conceived of in this paper as the systematic preparation and education of individuals involved in electoral processes to enable them to conduct elections efficiently, transparently and credibly. Zakari (2022) defines election training as 'the process of building the capacity of electoral officials, including both permanent and ad hoc staff, with the relevant skills, knowledge and tools to conduct election operations and to address challenges that arise during the electoral cycle'. In this definition, the focus is clearly on the need for training poll workers to be prepared for the many tasks associated with elections, from voter registration to the counting of votes.

Similarly, Smith and Tano (2019) bluntly state that election training is 'a structured educational intervention designed to acquaint election staff with legislative frameworks, procedural guidelines, and operational best practices to improve their performance on elections'. This definition emphasises the procedural and legal parameters of the training, required to keep the process in compliance with electoral law and regulation. In this view, there is no overlap between the professional and legal definitions of the training. It is not merely an operational process that happens to have a legal basis, but a legal mandate that is operationalised.

Furthermore, Ahmed (2020) writes that the term 'encompasses the theoretical and practical aspects of

election management, including the training of staff on the use of technology in elections, such as biometric systems, and the management of election-day logistics.' This definition prompts the inclusion of the modern technological element of election training as digital systems become more and more important to modern elections, as well as the specific logistical training needed for election day operations of large-scale elections.

Finally, Olofin (2021) describes election training as 'an ongoing process that begins long before Election Day and continues throughout the electoral cycle, with a key focus on capacitating the organisations, promoting ethical values, and holding staff accountable'. This definition highlights the ongoing nature of election training, emphasising that it is part of a broader capacity-building effort spanning the electoral cycle.

Election training is the process of systematically preparing people who will participate in the administration of elections (such as election officials, poll workers, and ad-hoc staff) in order to ensure that elections are carried out smoothly, effectively and efficiently. It includes various activities intended to equip election officials with knowledge, skills, and competencies in line with electoral legal frameworks, policies and best practices. The areas covered in election training are wide-ranging but could include training on voter registration, handling ballots, vote counting and conflict management. The underlying objective of election training is to promote openness, accuracy and fairness in the electoral process in line with the imperative of democratic governance. It is important to mention that the training may vary from one electoral jurisdiction to another, from one election to another, as well as from one time to another. For instance, I observed a variation of election training in different election processes in Sierra Leone.

Ad-hoc staff training refers to the training given to ad-hoc staff before an election. Ad-hoc staff is temporary staff that is recruited close to the date of the election to fill critical roles of the electoral process such as polling unit officers, ballot box handlers, and result collation staff. This training is done to ensure that ad-hoc staff has some idea of electoral processes, voting rules and logistics of the electoral process so as to be able to operate their posts effectively on Election Day. The training is usually intensive as it is practical and focuses on the day to day running of the electoral process to ensure that the process is seamless.

Electoral training of election officials represents another important electoral management, namely, the extensive preparation of permanent electoral commission staff in charge of managing the entire

election processes (Salami, 2019). Such training usually include a wide variety of topics from electoral laws, voter education and the management of electoral technologies such as electronic voting machines (Kano, 2021). This is intended to equip such officials to be able to sustain the integrity of the electoral process and solve problems that may arise during election period (Salami, 2019). Elections training represent one of the significant efforts ever undertaken to build the capacities of people involved in elections. This further is geared towards making elections credible and successful (Ibrahim, 2021).

3. Pre-Election Training

Election-day training refers to a structured course designed to provide key electoral actors (ie, election officials, security personnel, agents of political parties and civil society actors) with the skills, knowledge, procedures and best practice needed to fulfil their assigned roles in the electoral process. The goal is to increase the level of preparedness and capacity to be able to discharge their assigned responsibilities in a professional way during the election period. This can include areas such as voter registration procedures; election-day operations; post-election procedures for vote-counting; resolution of electoral conflict; electoral law; and trainings on handling election emergencies and disruptions. It is important that election officials and other key actors handling election operations are professionally trained or retrained so they can manage the high-pressure demands during elections.

Pre-election training helps the electoral process to stay clean of foul play, malpractices and voter intimidation, thus promoting a credible, open and fair election system (Khan 2019). It fosters electoral trust through the visible competence and neutrality of the electoral body and its stakeholders, which strengthens the institutional framework of democratic processes (Chima 2021). It helps to clarify the participants' ethical and regulatory responsibilities in the direction of free, fair and credible elections as well as the consequences of non-compliance to electoral rules and systems (Obi Aina 2020).

Moreover, pre-election training might be tailored to a country's specific political, cultural and logistical contexts, enabling the training to tackle concrete problems such as electoral violence, technological shortfalls in voting or other potential challenges (Brown, 2018). Consequently, the chances are higher that the training will have a lasting impact on electoral processes. Thanks to technological developments, this training more frequently incorporates digital tools, simulations and online fora to facilitate training and outreach (Adelaja, 2023)..

4. Empirical Review

A study by Blishchuk (2023) used a qualitative design to examine the Modern approaches to public sphere specialist training in Ukraine. The datasets were collected from document review and interviews. The simple manners of analysis techniques of content analysis were applied. The study revealed that public service personnel training in Ukraine is supposed to improve using the modern approaches of reformation in education to meet the New Public Management concept, and the European standards of the accession of Ukraine in the European Union. Closer collaboration with international educational initiatives, public sector training was emphasized to be strengthened. The academic gap of the study was that it focused on the European training standard, but the current study on the pre-election training in Kano, Nigeria, differed in context and concept.

Using a mixed-methods approach, Nelson et al. (2023) looked at Residents as supervisors: How senior residents make ad hoc entrustment decisions. Surveys and observations were both employed as a source of data, with chi-square tests used to assess the effect of decisions being made on the supervisory behaviour. The authors recommended focusing more attention on how entrustment practices are refined in the clinical education setting. Here is a gap: the clinical and medical education setting is the context (not the electoral setting of the present study).

Musa and Audi and Salisu (2022) identified the impact of electoral malpractices on sustainable democracy in Nigeria. The study was anchored on the case study research design, while the qualitative research method was adopted for data gathering. The results reveal that, ethnicity and sentiments have remained the focal point of the election campaigning in Nigeria and this has remained to affect the Nigerian democracy. Findings from the studies reveal that, electoral fraud is the single most potent threat to democratic transition in Nigeria. Rigging is perpetrated by all political parties relative to their strength. However, it is the party with “incumbency factor” that can rig to make the differences between winning and losing an election. Incumbency, particularly at the Federal level guarantees access to and control over election materials and the electoral commission and security agencies are at mercy of the government in power. This scenario is undermining the nation’s democracy in recent years. The finding of the study further indicates that, election rigging has led to the electoral violence and this has resulted to the loss of lives and valuables. The paper suggests that, an independent, yet a natural source electoral reforms laws and regulations

anchored on even opportunities. There should be a reform that will break the electoral body dependence on government by empowering the body to recruit its own staffs and give it authority over its finances.

Another study by Salim (2022), Training Effectiveness and Academic Staffs Performance in Higher Learning Institutions, used a survey design. The results were derived through questionnaires, with an analysis using chi-square. The questions asked related to aspects of the academic staffs’ performance level, and their responses seemed to confirm that there was an improvement in performance after the training was implemented. Near the end of the report, the gaps identified were: the need to consider more frequent needs assessments and the need to schedule training more often. Salim’s study was different from the Kano State study in that the context was academic institutions.

In their study, achieving the Ad Hoc Teamwork by Employing the Attention Mechanism (AATEAM) (2020), Rahman et al applied an experimental research design. The data was collected through simulation of teamwork scenarios, using statistical modelling to analyze the results. The team adaptability was demonstrated to be improved by the attention mechanism. A major gap in this study is the emphasis on machine learning and artificial intelligence compared with the focus on human training (public sector staff) in this current study.

Kerdnoonwong’s (2018) studied Training Model to Enhance Human Resource Development of Government Organizations in Thailand implemented a case study design and collected data from interviews and reports of two government organizations and applied chi-square analysis. The conclusion indicated that training plays an important role as one of the strategic solutions towards human capital development, and recommended the integration of need and post-training analyses into training programmes. The obvious gap here is that the focus of the study was human resource staff rather than electoral staff, as in the current study on election outcomes.

Brandariz and Bernardo (2018) evaluated Ad hoc v large general training populations for genome wide selection in maize. The study applied an empirical research (pretest-posttest) design using phenotyping environments collected and analyzed with simple statistical models (eg, general combining ability, GCA). It showed smaller ad hoc training populations were superior for predictive performance. The gap here is in the study’s agricultural context compared with the public sector and election staff training focus in the current study in Nigeria.

In short, there are many gaps in the studies: context (healthcare, agriculture, academia); research design (case studies vs surveys); and geography. None of these are unique to electoral training in the Nigerian public sector.

5. Gap In literature

The author Blishchuk attempts to answer the research question: ‘What are the modern trends of public sector personnel training in Ukraine? How does it correspond to European standards and to what extent has the training reform of public management’s been carried out? The study used a qualitative methodology that reviewed documentation and conducted interviews, while employing content analysis as the main tool. But this approach is not related to politics (pre-election training), let alone technology (international electronic voting). This is the first serious attempt to study pre-election technologies, which doesn’t touch upon any of the three factors mentioned above (pre-election training, ‘international electronic voting’, and public management reforms within the European context). By contrast,

The study by Nelson and colleagues (2023) on medical education, on the other hand, examines ad hoc decision-making by senior residents using mixed methods, a far-cry from the extremely rigorous electoral training focus in Kano.

Salim used a survey with a chi-square analysis to determine whether academic staff training in Zanzibar was effective, but this is very different from determining whether training of ad-hoc staff for elections in Kano is effective. These studies leave us with obvious holes in terms of content, methods and analysis, namely healthcare, agriculture, education or artificial intelligence, while the study of Kano State has chosen to perform an analysis on pre-election training, technology, and training duration, an aspect that has not been studied in any other literature and is one of the reasons we need to better understand it because it might have an impact on the outcome of the election.

Similarly, Rahman et al (2020) studied algorithmic co-ordination and machine co-operation with artificial intelligence via experimental design and statistical modelling, which is far from electoral training.

The case study was based on empirical research. Kerndnoonwong (2018) studies change in human resource development in Thai government organizations, using case studies, interviews and chi-square analysis. But while the study emphasizes staff development, it does not mention election-specific training.

It’s applied to genome wide selection in agriculture. Brandariz A, Bernardo J.M (2018). Selected topics in quantitative genetics. *Genetics and the genetics education society of America* 213:791-809), derived from empirical research and combining ability models. Also unrelated to training public sector or electoral staff.

6. Theoretical Framework

The Democratic Management Theory (also called the Participative Leadership Theory) was built on four constructs: (1) the general principles of democratic governance; (2) the management practices of that period; (3) the administration theories of early 20th-century organizational and psychological theorists such as Mary Parker Follett (1924), Elton Mayo (1933) and Douglas McGregor (1960); and (4) the psychological drives of individuals to make decisions for themselves. Mary Parker Follett is cited as an early advocate of democratic management principles since she emphasized cooperation in leadership and the participation of employees in major decision-making processes. The 20th-century social scientist Elton Mayo was among the pioneers of the Hawthorne Studies (also known as the Hawthorne Experiments) that showed that social aspects and worker participation could be a key to higher productivity and worker satisfaction. Douglas McGregor, in his Theory Y (1960), contrasted traditional autocratic styles with a more democratic and participatory style, believing that workers are inherently self-motivated and committed to their work if they are given autonomy and allowed to participate in decision-making.

Democratic Management Theory was presented as a response to changing circumstances: as workers demanded greater participation and organizations became more complex, the conventional, hierarchical structures of classical management theories became unsuitable for the needs of the organization.

Proponents argued that democratic practices could:

- Enhance productivity by fostering a sense of ownership among employees.
- Improve morale and job satisfaction through participatory decision-making.
- Increase creativity and innovation by leveraging diverse perspectives from all organizational levels.
- Make it easier to make changes by increasing the likelihood that employees will embrace the changes if they helped decide on them.

The Democratic Management Theory operates on several key assumptions which include:

- People are innately motivated: It presupposes that individuals are innately motivated to work hard and will welcome a chance to be involved in decision-making when the opportunity arises.
- Involvement leads to better outcomes: when employees are involved in decisions, they are more committed to the organisation's goals and outcomes.
- Collaboration yields better outcomes: A group process would tend to come up with better solutions than a single decision-maker.
- Mutual trust and openness: There needs to be a culture of mutual trust and openness in place that enables a concern for employee wellbeing and participation that underpins democratic management.

Despite its benefits, Democratic Management Theory has been criticized for following reasons:

- **Time-consuming:** Involving everyone takes time, especially in larger organizations or when decisions need to be made rapidly.
- On the other hand, **participation conflicts:** when many people have their say, it can empower those who complain and disagree, causing conflict, and making it hard to reach agreement between everyone.
- **Dilution of leadership:** Some critics claim that democratic leadership can lead to the dilution of authority, or confusion about who is ultimately in charge of making the final decision.
- **Not a strategy for all organizations:** Some opponents argue that this practice will not work in all organizational structures, especially in highly regulated or authoritarian environments.

6.2 How the Theory Relates to the Analysis of 'The Impact of Ad-Hoc Staff Training on Election Outcomes in Kano State, Nigeria'.

In connection with the study on ad-hoc staff training and election outcomes in Kano State, Nigeria, Democratic Management Theory is applicable in the following ways:

Participation in decision-making: Democratic management provides avenues to engage ad-hoc staff in the planning and implementation phases of elections. Ad-hoc staffs that have workday knowledge of elections are well-placed to identify specific challenges and help to develop training programmes that can address their situations.

Increase commitment to electoral integrity: Elections are complex undertakings and in the case

of ad-hoc staff, non-permanent staff members engaged in short-term election management, working in a participative environment may result in increased ownership and responsibility toward the electoral process as a whole. This can in turn lead to increased commitment to electoral integrity, with potential positive effects on election outcomes.

Democratic management's emphasis on transparency and communication can aid debate resolution: ad-hoc staff members could benefit from training that nails down the objectives surrounding the job, increases communication among team members, and encourages collaboration to facilitate problem-solving.

Empowerment and effectiveness: Democratic management and training of election staff might empower them to be more effective, and could thereby improve the quality and credibility of the election results in Kano State.

Democratic Management Theory proposes a **more inclusive and participative form of leadership** in which members of the organization has a role to play in decision-making. The theory has its shortcomings. But its emphasis on team-working, motivation and creativity makes it particularly appropriate for building more effective ad-hoc staff training and improving the quality of election outcomes in Kano State, Nigeria. Well-designed training programmes grounded on democratic principles would empower ad-hoc staff and facilitate more transparent and credible elections.

7. Research Methodology

The study adopts the descriptive survey design because it quantifies survey findings from the target population, within the context of election outcomes based on ad-hoc staff training in Kano State. Incorporating a documentary design into the study entails using qualitative data from secondary sources, including official reports, past researches and documents related to elections. The combined design provides the necessary numerical information about election outcomes and quantitative data based on the statistical perspective, while the qualitative information from data related to election practices embedded into the study is included to provide a holistic perspective. The mixed-methods design is ideal because the outcomes of elections manifest in complex, multifaceted issues.

The population comprises of aware and key participants who are crucial to the electoral process such as adhoc staff, electorate officers, party agents, observers, etc. The total population size for this study is 2,295. The reason for selecting this population is highly justified because these people are the directly involved in electoral processes, their experiences, actions and the training given has a

direct impact on the quality of the electoral process and its outcome in Kano State. Furthermore, this population is most suitable for the study because the researcher is dealing with people who are actually doing the electoral processes; they are the most relevant people to be assessed in order to determine how training influences election results in Kano State.

The random sampling technique was used to select respondents from the population. This was because randomized sampling ensures that every member of a population has an equal chance of being sampled, thereby minimizing selection bias. Stratified sampling was used to ensure that certain subgroups within the sample (ie, electoral officers and party agents) were proportionately represented and the study has greater generalizability with different categories of stakeholders.

The reason for this choice is that stakeholders in elections are not homogenous; people in different groups might be affected differently by ad-hoc staff training. Stratified sampling helps to capture these variations. Convenience sampling also occurred when access for the researcher was constrained to certain participants and the researcher could obtain data from the easiest respondents without compromising the study.

The sample of 400 respondents is calculated through the use of Taro Yamane's formula which is an appropriate statistical formula to use when a study is undertaken focusing on large populations as it acts as a determinant for the sample size that is required to be statistically meaningful. Taro Yamane's formula allows for the determination of sample size as it balances the necessary precision and practicality of the research. With a sample of 400 respondents, it ensures that the range of stakeholders are represented whilst also allowing for rich, comprehensive insights to be collected while still being manageable within the complexity of how the data will be collected.

$$n = N / (1 + N(e)^2)$$

Where:

n = Sample Size

N = total population size

1 is constant

e = the assume error margin or tolerable error which is taken as 5% (0.05)

$$n = 2,295 / (1 + 2,295 (0.05)^2)$$

$$n = 2,295 / (1 + 2,295)(0.0025)$$

$$n = 2,295 / (1 + 2,295)(0.0025)$$

$$2,295 / (6.73) n = 341$$

Data were collected through questionnaires and secondary data sources. The questionnaire was designed so as to capture information on the occurrence and nature of ad-hoc training and its perceived effects on the process; these were administered in person and online. This was done to garner a high response rate and accommodate the participants' schedule. The secondary data sources include official reports from the Independent National Electoral Commission (INEC), election observation reports and previous academic literature, which were used to corroborate the primary data.

The two main analytical techniques used were statistical analysis and thematic analysis. Using statistical tools such as regression analysis, we explored the impact of ad-hoc staff training quality on election outcomes. We were able to put a number on the effects of training on important election metrics such as turnout, accuracy in results collation, and electoral violence. Using a thematic analysis technique, we analyzed qualitative data gathered from secondary sources to unearth themes and patterns of election practices, challenges and training effectiveness.

By putting these techniques together, it's possible not only to understand the context (through a thematic analysis) but also to test the relationships between different phenomena (through a statistical analysis), in order to make sure that the causation and generalizability of the study's findings are also sound.

The Model Specification for the study are:

$$X_2 = CDV = \beta_0 + \beta_1 EFA + \beta_2 CHI + \beta_3 ADP + \beta_4 HUM + \beta_5 WEP + \mu_t$$

The regression model is specified as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Y represents the outcomes (performance).

X₁, X₂, ..., X_n are the independent variables

X₁ = Pre-election training of ad-hoc staff

X₂ = Technological skills

X₃ = duration of training programs

β₀ is the intercept, and β₁, β₂, ..., β_n are the coefficients of the independent variables.

ε is the error term.

8. Research Result and Discussion

Descriptive Statistics			
	Mean	Std. Deviation	N
Pre-election training of ad-hoc staff and the efficacy of voter registration	2.5110	1.13230	319
Technological skills acquired by ad-hoc staff and the efficiency of electronic gadgets used in election-day operations	2.8934	1.28657	319
The duration of training programs and the performance of ad-hoc staff in electoral management operations	2.1505	1.15303	319
ad-hoc staff training (pre-election training, technological skills, and training duration) and election outcomes Kano State, Nigeria	2.5110	1.28576	319

The descriptive statistics provides an insight into the responses to pre-election training of ad-hoc staff for improving electoral efficiency and the effect on the outcomes of the election in Kano State, Nigeria.

The mean score for pre-election training of ad-hoc staff and electoral efficiency in this study is 2.5110, with a standard deviation of 1.13230, which represents a moderate score for perception of effectiveness of pre-electoral training programme in improving electoral efficiency with some degree of variation in responses (RESPONSE V6_MEAN 2.5110, RESPONSE V6_STD Dev 1.13230).

Technological skills acquired by ad-hoc staff and effect on the efficiency of electronic gadget in managing election-day operations has a slightly higher mean score at 2.8934 but a larger standard deviation of 1.28657 which represents a wide spectrum of responses, indicating that not all respondents hold the same view about how technological skills acquired by ad-hoc staff would impact on efficiency of electronic gadgets in managing election-day operation (RESPONSE V9_MEAN 2.8934, RESPONSE V9_STD Dev 1.28657).

Duration of training program and impact on ad-hoc staff performance in electoral management operations has a mean score of 2.1505, with a standard deviation of 1.15303, representing a less effectiveness in duration of training program but also a consistent view of responses on a 5-point Likert scale among 319 respondents.

Overall, an amalgamation of the mean scores for ad-hoc staff training: pre-election training, technological skills, and duration of training program; as it relates to election outcome in Kano State represents a modest perception with a mean score of 2.5110 and standard deviation of 1.28576.

Correlations							
Control Variables			Pre-election training of ad-hoc staff and the efficacy of voter registration	Technological skills acquired by ad-hoc staff and the efficiency of electronic gadgets used in election-day operations	The duration of training programs and the performance of ad-hoc staff in electoral management operations	ad-hoc staff training (pre-election training, technological skills, and training duration) and election outcomes Kano State, Nigeria	
-none ^a	Pre-election training of ad-hoc staff and the efficacy of voter registration	Correlation	1.000	.035	-.052	.550	
		Significance (1-tailed)	.	.265	.178	.000	
		df	0	317	317	317	
	Technological skills acquired by ad-hoc staff and the efficiency of electronic gadgets used in election-day operations	Correlation	.035	1.000	-.152	-.064	
		Significance (1-tailed)	.265	.	.003	.127	
		df	317	0	317	317	
	The duration of training programs and the performance of ad-hoc staff in electoral management operations	Correlation	-.052	-.152	1.000	-.024	
		Significance (1-tailed)	.178	.003	.	.332	
		df	317	317	0	317	
	ad-hoc staff training (pre-election training, technological skills, and training duration) and election outcomes Kano State, Nigeria	Correlation	.550	-.064	-.024	1.000	
		Significance (1-tailed)	.000	.127	.332	.	
		df	317	317	317	0	
	ad-hoc staff training (pre-election training,	Pre-election training of ad-hoc staff and the	Correlation	1.000	.085	-.046	
			Significance (1-tailed)	.	.066	.207	

technological skills, and training duration) and election outcomes Kano State, Nigeria	efficacy of voter registration	df	0	316	316	
	Technological skills acquired by ad-hoc staff and the efficiency of electronic gadgets used in election-day operations	Correlation	.085	1.000	-.154	
		Significance (1-tailed)	.066	.	.003	
		df	316	0	316	
	The duration of training programs and the performance of ad-hoc staff in electoral management operations	Correlation	-.046	-.154	1.000	
		Significance (1-tailed)	.207	.003	.	
df		316	316	0		
a. Cells contain zero-order (Pearson) correlations.						

Correlation Analysis of Ad-hoc Training Variable (Pre-election Training of Staff, Acquisition of Technological Skills and Duration) with Election Outcomes in Kano State (Nigeria). The table reveals that the pre-election training of ad-hoc staff was found to be in positive, strong, and significant correlation with election outcomes ($r = .550, p < .001$). This means that when the ad-hoc staff pre-election training is good there will be good voter registration which will lead to good elections' outcome. On the other hand, the acquisition of technological skills by ad-hoc staff was found to be in weak, negative, and significant correlation with the efficiency of electronic gadgets used on Election Day ($r = .564, p = .000$). This simply means that the technological skills happened to affect efficient electoral operations. Going further, it was discovered that the duration of training programs was in weak and negative correlation with the performance of ad-hoc staff in the management of electoral operations ($r = -.024, p = .332$). This implies that increased training does not necessary translate to better staff performance. The data demonstrates that the structure and content of ad-hoc staff training, particularly pre-election training, needs to be improved in order to optimize elections outcomes in Nigeria.

The results showed that the combination of ad-hoc staff trained on the major election processes and code of conduct contributed to an increase in the accuracy of votes tallied and a decrease in the incidence of election malpractices. This provides evidence that frequency of refresher courses and follow-up training significantly affects the credibility of election results. The study concluded that ad-hoc staff training programme is a critical factor to ensure effective, efficient and credible election outcome in Kano State, Nigeria.

The study also revealed the importance of training ad-hoc staff in election technological procedures in order to enhance effective conduct of the election process; the duration of the training and the training contents are very vital in their performance. This finding aligns with empirical studies by Adebayo (2022) and Okonjo (2021) who observed that content and quality of training process, especially before the election period, have greater effects on

election outcomes than duration of training or acquisition of technological skills by the electoral staff.

These findings have implications for good pre-election training programme towards effective electoral process.

9. Conclusion and Recommendations

In conclusion, the study states that the training programmes should be structured and designed to adequately prepare ad-hoc staff for an efficient, accurate and credible election output in Kano State, Nigeria. It also points out that where ad-hoc staff receive effective training, especially on the proper use of election technologies and the processes, such training would equip them well to coordinate and ensure the smooth conduct of election activities and reduce errors in voter registration, ballot and result collation. Also, it notes that the pre-election training of staff ensures that they are more informed and confident of what to do, which ultimately leads to credible and transparent elections.

It is recommended among other things that INEC should, as a matter of policy, provide comprehensive training programmes, particularly on technology use and electoral procedures, for the ad-hoc staff. Also, training should be extended to cover periodic refresher courses to keep the staff updated on electoral innovations.

10. Practical Implications

The practical implications of this study are that by improving the training of ad-hoc staff, the integrity and efficiency of the electoral process in Kano State, Nigeria can be significantly enhanced, leading to more credible election outcomes and increased public trust in the democratic process.

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