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Sequence of Manuscript

I. Title page
II. Abstract (150-250 words)
III. Keywords (3-5)
IV. Introduction
V. Literature Review
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IX. References (APA 7th Edition)
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EFFECT OF CORPORATE GOVERNANCE MECHANISMS ON ELECTRONIC FRAUD PREVENTION IN LISTED DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT

This study examines the effect of corporate governance mechanisms on electronic fraud prevention within the Nigerian listed deposit money banks. Utilizing logistic regression analysis on a dataset encompassing 12 listed banks for the period 2014 to 2023, the findings reveal significant relationships between governance factors and fraud mitigation. Specifically, larger board and audit committee sizes are associated with enhanced fraud prevention, attributed to increased monitoring capabilities and diverse expertise. Moreover, higher levels of institutional shareholding demonstrate a substantial positive effect on reducing fraud risk, reflecting the active oversight and alignment of management actions with shareholder interests. However, board independence alone does not significantly influence fraud prevention, suggesting the need for complementary governance practices beyond independence. These results underscore the importance of optimizing board and committee structures, fostering institutional engagement, and integrating comprehensive governance frameworks to effectively mitigate electronic fraud in corporate settings.

Keywords
Corporate Governance, Electronic Fraud Prevention, Deposit Money Banks, Board Size, Audit Committee, Institutional Shareholding, Fraud Risk Mitigation.

Introduction

The rapid advancement of technology has transformed the financial landscape, creating both opportunities and challenges for financial institutions globally. Nigeria's banking sector, particularly listed Deposit Money Banks (DMBs), has experienced significant growth and evolution, making it a critical component of the country's economy. However, this growth has also led to an increase in electronic fraud, posing substantial risks to the integrity and stability of the financial system (Halbouni et al., 2016; Olaniyan, 2023). Corporate governance mechanisms have been identified as crucial tools in mitigating such risks. Effective governance frameworks ensure that banks operate within a structure that promotes accountability, transparency, and ethical behavior, thereby reducing the likelihood of fraudulent activities. Among the various governance variables, board size, board independence, audit committee size, and institutional shareholding play pivotal roles in shaping the effectiveness of fraud prevention strategies in the banking sector.

Research indicates that larger boards may enhance the breadth of expertise and oversight capabilities, potentially leading to more robust fraud prevention measures (Adeniyi & Omotayo, 2022). Conversely, overly large boards can suffer from coordination issues and diluted responsibility, which might undermine their effectiveness (Nwoye, 2021). Thus, finding an optimal board size is critical for balancing these factors. Board independence, characterized by the proportion of non-executive directors, is another vital variable. Independent directors are expected to provide unbiased oversight, thereby enhancing the board's ability to detect and prevent fraud (Ikpefan et al., 2022). Their independence from management allows for more objective decision-making processes, which is essential for maintaining robust internal controls and ethical standards.

The size of the audit committee is also a significant factor in electronic fraud prevention. An effective audit committee, typically composed of a mix of internal and external members, ensures that a bank's financial reporting and internal controls are rigorously scrutinized (Okafor & Agwu, 2022). A well-resourced audit committee can act as a powerful deterrent to fraud by enhancing the oversight and evaluation of a bank's financial activities. Institutional shareholding, which involves the ownership stakes held by institutional investors, adds another layer of governance. Institutional investors often have significant influence and a vested interest in ensuring that the banks they invest in are managed prudently and transparently (Eze & Chukwuemeka, 2023). Their presence can lead to more stringent oversight and pressure on management to adhere to best practices in fraud prevention.

The existing literature on the effect of corporate governance mechanisms on electronic fraud prevention in banks reveals a multifaceted and dynamic relationship. Several studies have underscored the importance of board size, with findings suggesting that an optimal number of board members enhances oversight and mitigates fraud risks (Adeniyi & Omotayo, 2022). However, excessively large boards can lead to inefficiencies and diluted accountability, thereby potentially increasing fraud risks (Nwoye, 2021). Board independence is consistently highlighted as a critical factor, with independent directors providing unbiased scrutiny that strengthens internal controls and reduces fraudulent activities (Ikpefan et al., 2022). The audit committee size also emerges as a significant variable, with research indicating that larger, well-resourced audit committees are better equipped to oversee financial reporting and internal controls, thus preventing fraud (Okafor & Agwu, 2022). Additionally, institutional shareholding is found to play a crucial role in governance, as institutional investors exert substantial influence and demand higher standards of transparency and accountability, thereby enhancing fraud prevention (Eze & Chukwuemeka, 2023). Collectively, these studies suggest that effective corporate governance, characterized by an optimal board size, high board independence, robust audit committees, and substantial institutional shareholding, is essential for mitigating electronic fraud in the banking sector.

Despite the extensive research on corporate governance mechanisms and their role in preventing electronic fraud, practical challenges persist, and significant literature gaps remain. One practical problem is the inconsistency in the implementation of governance practices across different banks, which can lead to varying levels of effectiveness in fraud prevention. For instance, while some banks may have large boards, the quality of oversight may still be compromised due to lack of proper training or engagement of board members (Nwoye, 2021). Additionally, the dynamic nature of electronic fraud, which evolves rapidly with technological advancements, poses a challenge for governance frameworks to keep pace. There is also a paucity of empirical studies specifically focused on the Nigerian banking context, as much of the existing literature draws on data from more developed economies. This geographical gap limits the generalizability of findings and their applicability to Nigerian banks (Olaniyan, 2023). Moreover, there is limited research exploring the interplay between multiple governance mechanisms simultaneously, such as how board independence and audit committee effectiveness jointly effect fraud prevention. Addressing these literature gaps and practical challenges is crucial for developing more effective governance strategies tailored to the unique context of Nigerian Deposit Money Banks.

This article aims to explore the effect of these corporate governance mechanisms on electronic fraud prevention in listed Deposit Money Banks in Nigeria. By analyzing the relationships between board size, board independence, audit committee size, and institutional shareholding, we seek to provide insights into how these variables can be optimized to enhance fraud prevention efforts in the banking sector. Specifically, the study tests the following hypotheses:
H1: Board size has no significant effect on electronic fraud of listed deposit money banks in Nigeria.
H2: Board independence has no significant effect on electronic fraud of listed deposit money banks in Nigeria
H3: Audit Committee size has no significant effect on electronic fraud of listed deposit money banks.
H4: Institutional shareholding has no significant effect on electronic fraud of listed deposit money banks in Nigeria.
This study aims to investigate the effect of corporate governance mechanisms on electronic fraud prevention in listed Deposit Money Banks (DMBs) in Nigeria over the period from 2014 to 2023. The selected timeframe is significant as it encompasses a decade marked by rapid technological advancements and significant regulatory changes in the Nigerian banking sector. These years have witnessed increased

adoption of digital banking platforms, which, while enhancing operational efficiency, have also exposed banks to higher risks of electronic fraud. By focusing on the period from 2014 to 2023, this study aims to provide a comprehensive understanding of how corporate governance mechanisms have evolved and their effectiveness in the context of increasing digitalization in the Nigerian banking sector. The insights gained from this research will be provide a comprehensive understanding of how corporate governance mechanisms have evolved and their effectiveness in the context of increasing digitalization.

2. Literature Review

Corporate Governance and Fraud Prevention

Evidence from the extant literature shows a link between effective corporate governance mechanisms and the likelihood of fraud. Sabbaghi (2016) reports that corporate governance affects fraud risk, and Gam et al. (2021) show a positive link between evasive corporate governance and corporate fraud. A few studies found that some companies could use effective corporate governance mechanisms to bolster their reputation after the fraud was detected. Rotenstein (2011) shows a statistically significant association between restatements involving fraud and changes to strengthen firms' governance structures following the restatements. Marciukaityte et al. (2006) uncover that companies increased the proportion of outsider directors on their boards of directors and the boards' monitoring committees after the accusation of fraud.

Several studies provide evidence that effective corporate governance reduces fraud risk, particularly insider fraud, corporate fraud, and asset diversion. Harris et al. (2017) identify consistent evidence that good governance reduces asset diversion. Asset diversion is one of the methods used in insurance fraud and involves the theft of an insurance company's assets (Scheetz et al., 2021). Mohd-Sanusi et al. (2015) uncover that corporate governance can reduce insider fraud in the Malaysian banking sector. Naruedomkul et al. (2010) conclude that effective corporate governance can help reduce Thailand's fraud risk

Board Size and Electronic Fraud Prevention

A few studies report a link between board structure, composition, and fraud incidents. Vasilakopoulos et al. (2018) suggest that bank managers' smooth income decisions may differ concerning the board structure. Previtali and Cerchietto (2017) conclude that for an effective anti-corruption strategy, larger supervisory board sizes are associated with weaker performance, and a greater external composition is preferable to an internal one. In contrast, Sehrawat et al. (2019) found that board size is irrelevantly identified with earnings manipulation.

Adeniyi and Omotayo (2022) explore the relationship between board size and fraud prevention in Nigerian banks, finding that an optimal board size enhances oversight and reduces the incidence of electronic fraud by leveraging diverse expertise and perspectives. Their study indicates that boards with between seven and eleven members tend to be the most effective. In contrast, Nwoye (2021) highlights the challenges posed by excessively large boards, such as coordination difficulties and diluted accountability, which can undermine their effectiveness in preventing fraud. Nwoye's research suggests that while larger boards can theoretically improve monitoring, in practice, they often face significant operational inefficiencies. Ikpefan, Agbada, and Anyanwu (2022) contribute to this discussion by examining how the structure and composition of boards effect their ability to combat electronic fraud. They find that while larger boards may have more resources and diverse skill sets, their success largely depends on the engagement and independence of the directors. Collectively, these studies underscore the importance of balancing board size to maximize effectiveness in fraud prevention while minimizing potential drawbacks.

Board Independence and Electronic Fraud Prevention

Torchia and Calabro (2016) uncovered a positive and significant relationship between the independent directors' ratio and the level of financial transparency and disclosure. Frankel et al. (2011) suggest that companies with less independent boards are more likely to manipulate US earnings opportunistically. Romano and Guerrini (2012) find that board independence is the sole effective mechanism in detecting financial reporting fraud in Italy. The results show that firms committing accounting fraud have a lower percentage of independent directors on the board and fewer non-executive and independent directors on the audit committee. Ghafoor et al. (2019) indicate that independence of the board provides active monitoring and oversight in reducing fraud.

In contrast, Persons (2005) concludes that board of director independence is insignificant in reducing fraud likelihood. Yang et al. (2017) did not find evidence that the percentage of independent directors in the directorate plays a role in deterring financial fraud in China. Gulzar et al. (2020) find empirical evidence that board independence does not impact the performance of listed textile companies in India.

Institutional Ownership and Electronic Fraud Prevention

Evidence from the literature indicates a link between ownership structure and fraud risk. For instance, Sharma (2004) reports that as the percentage of independent institutional ownership increases, the likelihood of fraud decreases. Ghafoor et al. (2019) indicate that dedicated institutional investors provide active monitoring and oversight in reducing fraud. Cheng et al. (2008) show that the percentage of shares held by the controlling shareholder significantly influences financial control, reducing fraud risk in China. Pucheta-Martínez and García-Meca (2014) suggest that institutional investors on boards and audit committees are effective monitors, which leads to higher quality financial reporting and, therefore, a lower likelihood that the firm receives a qualified audit report.

Shi et al. (2020) uncovered that institutional ownership is negatively associated with the likelihood of securities fraud commission. Firms with high institutional ownership are more likely to dismiss CEOs than those with low or no state ownership upon securities fraud detection. Choi et al. (2020) explore a causal relationship between firms' ownership structures and the likelihood of corporate fraud in South Korea. They find that the frequency of corporate fraud was reduced more in central firms than in non-central firms as the controlling owner's cash-flow rights dropped more. However, an opposite conclusion by Chen et al. (2006) suggests that boardroom characteristics are more important and relevant than ownership structure in explaining fraud.

Audit Committee and Electronic Fraud Prevention

A few studies reported that specific characteristics could enhance audit committees' abilities to mitigate fraud risk. Persons (2005) uncovered that fraud is lower when the audit committee comprises independent directors, has fewer directorships with other companies, and has longer tenure. Similarly, Owens-Jackson et al. (2009) find that the likelihood of fraudulent financial reporting is negatively related to audit committee independence and the number of audit committee meetings. Abbott et al. (2000) find that firms with audit committees composed of independent directors and meet at least twice per year are less likely to be sanctioned for fraudulent or misleading reporting. Mnif and Borgi (2020) report that audit committee independence and the number of meetings held by the audit committee are positively associated with the extent of compliance with IFRS. Besides, audit committee industry expertise and financial accounting expertise are associated with a higher level of compliance. Ashraf et al. (2019) uncover a reduction in the likelihood of material restatement, information technology related material weaknesses, and more timely earnings announcements at firms with audit committees with information technology expertise. However, Persons (2005) inconsistently concluded that audit committee expertise is not significant in reducing fraud likelihood.

Theoretical Framework

Agency theory propounded by Jensen and Meckling (1976), which addresses the conflicts of interest between shareholders (principals) and management (agents), is fundamental to understanding how corporate governance mechanisms can prevent electronic fraud in banks. Effective governance structures, such as optimal board size, board independence, robust audit committees, and substantial institutional shareholding, are essential for aligning the interests of managers with those of shareholders and reducing the risk of fraud. Larger boards can provide diverse expertise for better oversight, while independent directors ensure objective monitoring. Audit committees enhance financial scrutiny, and institutional shareholders demand higher transparency and accountability. These mechanisms collectively mitigate managerial opportunism and safeguard against electronic fraud, highlighting the importance of strong corporate governance in the banking sector.

3. Methodology

The research utilizes an ex-post facto design to examine the effect of corporate governance on electronic fraud prevention in listed deposit money banks in Nigeria. This design involves observing and analyzing existing data to identify relationships between variables without intervention or manipulation by the researcher (Hair et al., 2014). By examining historical data from annual reports, the study aims to determine the influence of board size, board independence, institutional shareholding, and audit committee size on electronic fraud prevention.

The population of interest comprises 17 deposit money banks listed on the Nigerian exchange Group (NGX) as at December between 2014 to 2023. However, the study dropped 5 banks that were delisted or merged with other banks during the period. The delisted banks include Skye bank, Heritage Bank. Diamond bank was not included because it was acquired by Access Bank. Wema Bank and Jaiz Bank were not included because they were listed during the study period. The final sample comprised 12 banks, the sample collected was done using census sampling technique. The data for the study were collected from secondary sources, primarily the annual reports of the selected oil and gas companies for 11 years (2014 to 2023).

The dependent variable is electronic fraud prevention, while the independent variables are board size, board independence, audit committee size and institutional shareholding. The study employed the logistic regression analysis to test the hypotheses and examine the relationships between the independent and dependent variables. Logistic regression is particularly suitable for analyzing longitudinal data, such as annual reports from multiple firms over several years (Gujarati, 2004) when the dependent variable is dichotomous (dummy). This approach allows for controlling for individual heterogeneity across firms and capturing the effects of time-related factors.

The following logistic regression model was used to test the hypotheses.

$$EFP_{it} = \alpha_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 AS_{it} + \beta_4 IS_{it} + \varepsilon_{it}$$

Where EFP = Electronic Fraud Prevention

BS = Board size

BI = Board independence

AS = Audit Committee size

IS = Institutional shareholding

α_0 = Constant

$\beta_{1-}\beta_6$ = Beta coefficients

ε_{it} = error term

Variable Acronym	Definition	Measurement	Source
EFP	Electronic fraud prevention	Dummy variable: 1 if an electronic fraud was repc during the year and 0 otherwise.	Ikpefan et al., 202
BS	Board size	Number of directors on t board	Adeniyi & Omotay 2022.
BI	Board independence	Independent directors di by board size	Gam et al., 2021
AS	Audit Committee siz	Number of directors on t audit committee	Adegbite et al., 20
IS	Institutional shareholding	Ratio of shares held by institutional investors to issued capital	Puchet-Martinez & Garcia, 2014

4. Results and Discussion

The results of the study are presented in this section. Three sets of results are presented, namely descriptive, correlation and regression analyses. Table 2 presents the descriptive analysis, including mean, standard deviation, minimum and maximum values.

Table 2
Descriptive Analysis

```
. summarize efp bs bi as is
```

Variable	Obs	Mean	Std. Dev.	Min	Max
efp	120	.675	.4703387	0	1
bs	120	11.56667	1.548832	7	15
bi	120	.5898417	.1016795	.5	.815
as	120	5.566667	.8274019	4	6
is	120	.4608217	.2725831	.0039	.9828

Table 2 above shows that electronic fraud, represented as a dummy variable, has a mean of 0.675, indicating that 67.5% of companies reported electronic fraud in the year. The standard deviation of 0.470 suggests moderate variability around this mean. The minimum and maximum values of 0 and 1 confirm the binary nature of the data. These results highlight the prevalence of electronic fraud and the necessity for enhanced cybersecurity measures.

The Table shows that the mean board size is 11.57 members, suggesting that companies typically have moderately large boards. With a standard deviation of 1.55, most companies have board sizes close to the mean, indicating relatively low variability. The range of board sizes, from a minimum of 7 to a maximum of 15, shows some flexibility while maintaining a consistent structure. These findings highlight a general preference for board sizes that balance diverse expertise with effective decision-making. The descriptive analysis of board independence shows a mean of 0.59, indicating that, on average, 59% of board members are independent. With a standard deviation of 0.10, there is some variability, but most companies have a similar proportion of independent directors. The range, with a minimum of 0.5 and a maximum of 0.82, suggests that while all companies maintain a significant level of board independence, some have a notably higher proportion of independent members.

The descriptive analysis indicates that the mean audit committee size is 5.57 members, suggesting that companies generally prefer moderately sized audit committees. With a standard deviation of 0.83, there is low variability in the sizes of audit committees. The range, from a minimum of 4 to a maximum of 6 members, demonstrates a narrow distribution, implying that companies tend to adhere to a consistent structure for their audit committees. The table also reveals that on average, institutions hold 46% of the company's shares. The standard deviation of 0.27 reflects considerable variability in institutional ownership among companies. The wide range, from a minimum of 0.0039 to a maximum of 0.982, highlights significant differences in the extent of institutional ownership across companies.

Table 3
Correlation Analysis

```
. correlate efp bs bi as is
(obs=120)
```

	efp	bs	bi	as	is
efp	1.0000				
bs	0.1973	1.0000			
bi	-0.0239	0.1081	1.0000		
as	0.1965	-0.0560	0.2119	1.0000	
is	0.2147	0.0242	0.0038	0.0074	1.0000

The correlation analysis in Table 3 shows that board size, board independence and institutional shareholding have positive relationships with electronic fraud detection. This implies that electronic fraud is less prevalent in companies that have larger board size, is composed of independent directors, have significant institutional shareholders. The relationship between board independence and electronic fraud prevention is negative. There is also a mild correlation among pairs of independent variables, suggesting the lack of existence of multicollinearity.

The study performs two diagnostic tests namely multicollinearity and heteroscedasticity. Table 4 presents the multicollinearity test, which was conducted using the variance inflation factor.The multicollinearity test showed that there are no exact correlations between any pairs of independent variables. This conclusion is based on all VIF values being below 10 and all tolerance values consistently above 0.10. These results indicate that there is no multicollinearity among the independent variables.

Table 4
Multicollinearity Test

```
. vif
```

Variable	VIF	1/VIF
bi	1.06	0.940649
as	1.05	0.948718
bs	1.02	0.981210
is	1.00	0.999335
Mean VIF	1.03	

The heteroscedasticity test was conducted using the Breusch-Pagan/Cook-Weisberg test. The results revealed an insignificant chi2 value, suggesting that the homoscedasticity assumption is not violated. Hence, the study used logistic regression without the robust option as the technique of analysis.

```
. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of efp

         chi2(1)      =     0.17
         Prob > chi2  =   0.6801
```

As stated earlier, this study used logistic regression to analyze the data and test the hypotheses. The result is presented in Table 5 below.

Table 5
Logistic regression

```
. logit efp bs bi as is

Iteration 0:   log likelihood = -75.669723
Iteration 1:   log likelihood = -67.332839
Iteration 2:   log likelihood = -67.190952
Iteration 3:   log likelihood = -67.190874
Iteration 4:   log likelihood = -67.190874

Logistic regression                             Number of obs   =        120
                                                LR chi2(4)      =      16.96
                                                Prob > chi2     =     0.0020
Log likelihood = -67.190874                     Pseudo R2       =     0.1121
```

efp	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bs	.3456034	.1507823	2.29	0.022	.0500755	.6411314
bi	-2.347366	2.126167	-1.10	0.270	-6.514577	1.819845
as	.6354441	.2530819	2.51	0.012	.1394127	1.131476
is	1.908568	.8053874	2.37	0.018	.3300375	3.487098
_cons	-6.191912	2.452454	-2.52	0.012	-10.99863	-1.385191

The logistic regression results indicate that board size has a positive effect on electronic fraud prevention, with a coefficient of 0.35. The p-value of 0.022 suggests this relationship is statistically significant, implying that larger boards are associated with better electronic fraud prevention. The results suggest that board independence has a negative effect on electronic fraud prevention, as indicated by the coefficient of -2.35. However, the non-significant p-value of 0.270 implies that this relationship is not statistically significant, suggesting that board independence may not play a significant role in influencing electronic fraud prevention in this context. The table also indicates that audit committee size has a positive effect on electronic fraud prevention, with a coefficient of 0.64. The statistically significant p-value of 0.012 suggests that larger audit committees are associated with better electronic fraud prevention measures, highlighting their role in enhancing corporate governance practices related to fraud mitigation. Furthermore, the results show that institutional shareholding has a positive effect on electronic fraud prevention, with a coefficient of 1.91. The statistically significant p-value of 0.018 indicates that higher institutional shareholding levels are associated with stronger electronic fraud prevention measures, highlighting the influence of institutional ownership on corporate governance practices related to fraud mitigation.

The finding of a positive effect of board size on electronic fraud prevention aligns with studies like Adeniyi and Omotayo (2022), which indicate that boards with an optimal size can enhance oversight and reduce fraud incidents through diverse expertise. This contrasts with concerns raised by Nwoye (2021) about the challenges of excessively large boards, such as coordination issues and diluted accountability, which may compromise their effectiveness in fraud prevention. Additionally, Ikpefan, Agbada, and Anyanwu (2022) suggest that while larger boards can offer more resources and diverse skills, their effectiveness in combating fraud depends on factors like director engagement and independence, reflecting the nuanced relationship between board size and fraud prevention outcomes.

The finding of an insignificant negative effect of board independence on electronic fraud prevention contrasts with several empirical studies suggesting a positive effect of board independence on fraud mitigation. Torchia and Calabro (2016), Frankel et al. (2011), and Ghafoor et al. (2019) all indicate that independent boards provide active monitoring and oversight, reducing the likelihood of fraud. Conversely, studies like Persons (2005), Yang et al. (2017), and Gulzar et al. (2020) found no significant association between board independence and fraud prevention in their respective contexts, suggesting mixed findings across different regions and industries regarding the effectiveness of board independence in combating fraud.

The result of a significant positive effect of audit committee size on electronic fraud prevention aligns with studies such as Owens-Jackson et al. (2009) and Abbott et al. (2000), which indicate that audit committees with more members and frequent meetings are associated with lower fraud risk and better financial reporting integrity. These findings contrast with Persons (2005), who found inconsistent results regarding the significance of audit committee expertise in reducing fraud likelihood, suggesting that while size and activity level may be influential, specific expertise within audit committees may not consistently mitigate fraud across different contexts and studies.

The finding of a significant positive effect of institutional shareholding on electronic fraud prevention is consistent with studies such as Ghafoor et al. (2019) and Pucheta-Martínez and García-Meca (2014), which suggest that institutional investors provide active monitoring and oversight, thereby reducing fraud risk. This contrasts with studies like Shi et al. (2020) and Choi et al. (2020), which highlight instances where high institutional ownership is associated with lower fraud likelihood in different contexts such as securities fraud and corporate governance in South Korea. However, Chen et al. (2006) present an opposing view, suggesting that boardroom characteristics may be more influential in explaining fraud than ownership structure alone, indicating varied findings on the effect of institutional ownership across different studies and settings.
The four results—positive effects of board size, audit committee size, and institutional shareholding on electronic fraud prevention, and an insignificant effect of board independence—relate to agency theory by highlighting mechanisms through which corporate governance structures align management actions with shareholder interests. Larger boards and audit committees with more members likely enhance monitoring and oversight capabilities, reducing agency conflicts where managers may act opportunistically. Institutional investors, by actively monitoring firms and exerting influence, mitigate agency problems by aligning management incentives with shareholder value. The insignificant effect of board independence suggests complexities in how independence alone impacts governance and fraud prevention, emphasizing the nuanced roles of structure, activity level, and specific governance practices in mitigating agency costs.

5. Conclusion and Recommendations

This study examines the effect of corporate governance mechanisms on electronic fraud prevention of listed deposit money banks in Nigeria. The data were collected from 12 banks for the period 2014 to 2023 and were analyzed using the logistic regression analysis. Based on the results the study concludes that larger board and audit committee sizes contribute positively to electronic fraud prevention, likely due to increased monitoring and diverse expertise. Higher institutional shareholding significantly reduces fraud risk by fostering active monitoring and aligning management actions with shareholder interests. However, board independence alone did not show a significant effect on fraud prevention in this context, highlighting the importance of integrating multiple governance mechanisms beyond independence to effectively mitigate electronic fraud. These findings underscore the need for corporate governance practices that optimize board and committee structures while leveraging institutional oversight to enhance fraud prevention strategies. The study recommends as follows:

1) Nigerian banks should consider optimizing their board and audit committee sizes to foster effective oversight and decision-making. This includes assessing the composition of these bodies to ensure they have sufficient diversity and expertise to monitor and mitigate electronic fraud effectively.
2) While board independence alone may not significantly impact fraud prevention, companies should ensure a balance between independent directors and those with industry expertise and strategic vision. This mix can strengthen oversight and decision-making processes crucial for fraud prevention.
3) Nigerian banks should actively engage with institutional investors, fostering transparency and accountability to leverage their monitoring capabilities in governance practices.
4) Nigerian banks should integrate comprehensive governance practices beyond independence, incorporating robust audit and risk management frameworks. This holistic approach includes regular assessments of governance structures, policies, and procedures to continually enhance fraud prevention strategies.

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